EXPLORING THE STRESSORS AND COPING EXPERIENCES OF HEALTHCARE WORKERS IN LONG-TERM CARE HOMES DURING COVID-19 CRISIS WITHIN SOUTHERN ALBERTA

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DEDICATION

I dedicate this work to God Almighty, the source of my strength and resilience. I am grateful to my late Dad, Adebayo Aderemi Adeosun, who gave me the opportunity to further my studies in Canada. I am also forever thankful to my dearly beloved Mum, Elsie Sewanu Adeosun who cheered me on during this research process, but sadly passed away before its completion.

ABSTRACT

This study aimed to explore the psychological and other stressors of the COVID-19 pandemic on healthcare workers (HCWs) in long-term care (LTC) homes in the Southern Alberta region in Canada. A qualitative descriptive research design was used to answer two research questions: (1) What are the psychological stressors of healthcare workers in LTC homes during the COVID-19 public health crisis in Southern Alberta, and (2) What are the coping mechanisms that healthcare workers in LTC homes find helpful in managing the identified stressors? Thematic analysis was used to analyze the data collected from semi-structured interviews with HCWs. The results revealed that the main pandemic stressors experienced by the HCWs were chronic understaffing, unpredictability and constant change, fear of risking being infected and the unknown, and disruption of work-life balance with an implication on the mental HCWs. The main coping mechanisms identified by the HCWs bordered on behavioural, social, and internal and spiritual coping responses. The findings from this study have implications for the development of effective measures for improving the mental health of HCWs in the LTC setting during a public health crisis and provide information for interventions that may promote the psychological wellbeing of HCWs. The study also offers policy and practice-based recommendations.

PREFACE

This thesis is an original research work by Adebayo Adeosun. No portion of this thesis has been previously published or circulated in any form.

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I am deeply grateful to my beloved wife, Anuoluwapo Adeosun, for her unwavering support throughout this research project. My heartfelt thanks also goes out to my siblings, parents-in-law, brothers- and sisters-in-law for their prayers, encouragement, and unconditional love.

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I am immensely grateful to the people who have supported me on my journey through the Faculty of Health Sciences. From my family and friends to my teachers and mentors, I could not have done it without their encouragement and guidance. A special thank you to all my peers who have provided me with invaluable insight and perspectives throughout my academic studies. I would also like to express my appreciation to the Faculty of Health Sciences staff for their integral role in my learning.

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Acronyms:

AHS = Alberta Health Services

LTC = Long- Term Care

RN = Registered Nurse

LPN = Licensed Practical Nurse

HCA = Healthcare Aide

OHSW = Occupational health, safety & wellness

Definition of key terms.

Healthcare workers (HCWs): For this study, frontline HCWs include regulated nurses, unregulated staff, and recreational therapists. Regulated staff include registered nurses (RNs) and licensed practical nurses (LPNs), whereas unregulated staff include health care aides (HCAs), recreational therapists, and therapy assistants.

Long-Term Care (LTC): LTC is a round-the-clock services and supervision for individuals with complex medical conditions seven days a week in a home-like environment consisting of various professional health and personal care services (Health Canada, 2004).

Residents: This study references "residents" as individuals that reside in long-term care homes.

Stressors: For this study, stressors are situations & events that are considered stress-provoking, which ultimately trigger stress response (Heart & Stroke, 1997).

Coping Mechanisms: For this study, coping mechanism is defined as strategies, thoughts people often use to manage stressful, painful, or difficult situations both externally and internally (Folkman & Moskowitz, 2004).

CHAPTER 1: INTRODUCTION

The advent of COVID-19 has brought a lot of stress and mental health challenges to the general populace. The number of deaths associated with the viral disease alone creates anxiety and fears amongst people. Healthcare workers (HCWs) on the frontline appear to be more at risk for this dreaded disease, which could be a factor that may amplify their anxiety; hence, many of them may experience stress and psychological symptoms related to their work in a COVID-19 context. Since the onset of this pandemic, limited literature exists on understanding and exploring the effects such stressors have, and the mental health implications associated with COVID-19 on HCWs in long-term care (LTC) homes.

Problem Statement

In comparison to China, Canadian research has not extensively studied the psychological effects of HCWs in LTC settings or the methods they use to cope with the COVID-19 pandemic, an area that this proposed study could help add knowledge to. This proposed study aims to explore how the demands of the pandemic could have impacted the mental health of HCWs and the coping strategies they may have employed in the LTC workplace.

Rationale & Purpose of the Study

Understanding LTC HCWs' experiences and the impact on their mental health during COVID-19 pandemic may benefit workers and residents alike. Practical benefits of this study could be the provision of individual psychological support and resources for HCWs in LTC homes that require it. This support should be a priority in the logistical process, alongside infection control and supply chain management. The findings of this study can provide vital information for the development of effective measures for improving the mental health of healthcare workers during any public health crisis. Also, the findings may provide information

needed for interventions that may promote the psychological wellbeing of healthcare workers caring for suspected and or confirmed cases of COVID-19 residents, as well as workers exposed to the virus (Smith et al., 2020). Finally, I hope that these findings would eventually add to the body of knowledge within the academic sphere and serve as a local data for healthcare in the Southern Zone of Alberta during an emerging public health crisis.

Assumptions

From my experience as a HCW in a LTC home and based on my literature review, I assumed that before the emergence of a public health crisis, HCWs experienced mental health issues. With the inception of the COVID-19 pandemic, I assumed that the mental health of HCWs may have been further impacted, as observed amongst my colleagues. Having such observations at my workplace, I believed that such circumstances may hold true with other LTC homes within the southern region of Alberta. Consistent with the nature of qualitative research and my quest to understand (Creswell, 2013; Denzin & Lincoln, 2018; Liamputtong, 2013), my exploration of the subject was guided by two main research questions in this study.

Research Questions

1. What are the psychological stressors of healthcare workers in LTC homes during the COVID-19 public health crisis in Southern Alberta?
2. What are the coping mechanisms that healthcare workers in LTC homes find helpful in managing the identified stressors?

Thesis Outline

This thesis document comprises seven chapters. Chapter one introduces the problem statement, purpose of the study, research questions, and assumptions.

In Chapter two, I provide a comprehensive background literature review on existing experiences of HCWs' in LTC homes during a public health crisis. I also review the limited literature available for this researched phenomenon.

In chapter three, I present the research study methodology and strategies best suited in carrying out the research study. After much consideration, I determined that using a qualitative descriptive research design would be the best choice in answering my research questions. This section also discusses about the philosophical worldview in relation to the phenomenon being explored, and the ethical considerations of the research study accordingly. The chapter also discusses the how data analysis was done with the use of thematic analysis.

Chapter four provides findings to the first research question which examines the psychological stressors of healthcare workers in LTC homes during the COVID-19 public health crisis in Southern Alberta. Chapter five presents the findings to the second research question which explores the coping mechanisms that healthcare workers in LTC homes find helpful in managing the identified stressors.

Chapter six brings together the major findings from chapter four and five of the research study and the significance of these findings to LTC homes within the Southern region of the Alberta province. Finally, chapter seven concludes the research study by offering policy and practice-based recommendations based on the findings of this study.

CHAPTER 2: BACKGROUND LITERATURE

Long-Term Care in Canada

The LTC homes in Canada provide care to individuals requiring around-the-clock services and supervision seven days a week in a home-like environment consisting of various professional health and personal care services (Health Canada, 2004). Many residents living in these settings are dealing with complex chronic conditions such as dementia, Alzheimer's disease, diabetes, COPD, cognitive impairment, and a host of other medical conditions (Nihtilä et al., 2007; OECD Health Statistics**,** 2016). By the year 2030, about 23% of Canada's population will be seniors (aged 65 years and above), making the ageing Canadian population estimated at 9.5 million individuals (Government of Canada-Action for Seniors Report, 2019). In essence, there is a growing need for LTC homes and other assisted living homes and their services for seniors in Canada. The types of care provided in LTC homes addresses residents' physical, mental, and social needs (Iglehart, 2000). Because of the diversity of the care provided, a wide array of care team members including healthcare aides (HCA), occupational therapists, dietary staff, laundry and housekeeping staff, clinical educators, social workers, recreational therapists, and registered and licensed practical nurses (RNs/LPNs) exist (Health Canada, 2004; Lansbury et al., 2017).

Working Conditions and the Quality of Care in LTC homes

There is a correlation between the quality of care provided in LTC homes and the quality of working conditions for HCWs (Bostick et al, 2006; Donna & Armstrong, 2018; Spilsbury et al., 2011). Most LTC homes are understaffed and have few professional practitioners such as nurses (OANHSS, 2014). Provinces in Canada all have varied staffing guidelines that are set with specific hours of direct care per resident per day; however, most of these provincial

guidelines fall below the recommended benchmarks. These recommended benchmarks were set by the U.S. Centers for Medicaid and Medicare Services (USCMS) and endorsed by organizations such as the Canadian Health Coalition, the Coalition of Geriatric Nursing Organization, and the National Consumer Voice for Quality Long-Term Care (Canadian Health Coalition, 2018; Harrington et al., 2016). The recommended benchmark for quality long-term care is set at 4.1 hours of direct care per resident, per day (Harrington et al., 2016).

In Ontario, for example, some LTC homes have higher residents to staff ratio, with an average of 3.12 hours of direct care per LTC resident, while British Columbia averages between 2.25 to 3.5 hours of care per LTC resident, depending on the type of LTC ownership (Harrington et al., 2012; OANHSS, 2014). In Manitoba, staffing levels are also inadequate, with an average of 3.6 hours of direct care, and 58% of nurses complaining of not having enough time to properly care for their residents due to being understaffed (Canadian Health Coalition, 2018). Alberta is also below the recommended benchmark. Albertan LTC homes average about 3.6 hours. In New Brunswick, the average of direct resident care per day is 3.1 hours (Canadian Health Coalition, 2018; Harrington et al., 2012).

A closer look at the hours in many provinces suggests that they all fall short of the recommended 4.1 hours in direct resident care, which could be indicative of understaffing. Inadequate staffing levels often negatively impact the care services rendered to residents which in turn, impacts both the quality of care and working conditions (Canadian Health Coalition, 2018).

Stressors

Any response to a given situation or condition that places a lot of demand on an individual's mental and physical domain is determined to be "stress." These could be deemed by

individual differences and psychological processes, or due to a consequence of an action of the environment, situation, or event (Luthans, 2006). Stress also tends to manifest in the everyday lives of different individuals. This poses as a factor in placing an individual's physical and psychological health at risk (Chen et al., 2009; Ford et al., 2014; Mihăilă, 2015).

According to the Centre for Studies on Human Stress (CSHS) (2019), psychological "stressors" are events and situations that trigger negative emotions or thoughts. In essence, stressors trigger the stress response. Both social and physical environmental circumstances that challenge humans' adaptive nature can be considered stressors (Monroe et al., 2016). The complexity surrounding the stress phenomenon is usually accompanied by an interplay involving humans and their environmental interaction which tends to spill into their psychological, biological, and physical wellbeing (Häusser et al., 2010; Lazarus, 2006). As such, Lazarus (2006) describes how the way humans evaluate an event often determines how they react emotionally. Thus, how workers perceive their job demands may influence their emotional capacity to deal with them, resulting in work-related stress. In other words, HCWs working in LTC homes with their day-to-day demands may be influenced by the perception of their working environment, which could in turn translate into becoming a stressor for them.

The increase in job demands and responsibilities due to Covid-19 pandemic has further exasperated the already existing stress on the job in long-term care homes, amplifying the need to better understand the psychological and physical impact of job-related stressors on the healthcare workers.

Workplace Stressors

A typical day-to-day workload of LTC HCWs involves direct resident care, consistently answering call bells, unexpected events such as falls/outbreaks, attending to facility policies,

procedures, documentation, and other tasks (Alghamdi, 2016; OANHSS, 2014). Working in LTC homes is demanding because they lack adequate human resources (Lang et al., 2004). HCWs in LTC homes have more unsatisfactory working conditions because they are usually understaffed and involved in taking care of a higher-than-usual number of residents compared to their counterparts in other health care settings (Moore et al., 2005; Syed & Ahmad, 2020). Qualitative studies have shown that most LTC HCWs have low salaries, have higher job insecurity, lack adequate support, and are infrequently involved in decision making (McGregor et al., 2006; Syed & Ahmad, 2020).

Because of the high resident-provider ratio, LTC HCWs have a higher workload, work longer hours, and have an increased number of assigned residents; thus, residents often do not receive adequate time for care (Moore et al., 2005). Services provided by LTC HCWs are crucial to the well-being of residents. Research indicates that understaffed facilities often perform suboptimally, placing residents at increased risk of poorer health (Carayon & Gürses, 2005; Lang et al., 2004).

LTC's poor working conditions can increase susceptibility to feelings of exhaustion, frustration, anger, and a sense of ineffectiveness among care providers. For example, Inegbedion et al. (2020) found that a heavy workload can cause stress, burnouts, and be overwhelming for workers. Research shows that about 37% of LTC nurses report backache and excruciating pain due to poor body ergonomics (Knibbe & Friele, 1996; Shields & Wilkins, 2006).

With these working conditions serving as possible stressors, it is more likely that they lead to an increase in the mental health concerns in healthcare workers. Some existing studies

also indicate that a significant level of mental challenges affect HCWs in LTC homes (Asrakianakis et al., 2014; Braedley et al., 2017; McGilton et al., 2007).

In essence, the workplace stressors discussed may lead to psychological stressors such as stress, depression, anxiety, and suicidal ideation due to the lack of resources and understaffed facilities. Low salaries, job insecurity, and a lack of decision-making authority can lead to increased frustration, anger, and a feeling of ineffectiveness. This can lead to psychological stress and mental health issues, which in turn can affect the quality of care being provided. Economic stressors, such as lower wages and job insecurity, can also influence psychological stressors due to the additional pressures of providing for oneself and one's family. All of these may lead to increased feelings anxiety and the fear of not being able to provide for one's family, which can in turn affect one's mental health. The Mental Health Commission of Canada (2012) reported that many HCWs experience stress, increasing their susceptibility to depression, substance abuse, anxiety, and suicidal ideation. These mental health problems are highly prevalent in LTC workers because of the poor working conditions (Hoben et al., 2017; Moore et al., 2005). Shields and Wilkins (2006) found that depression is higher in LTC workers with a heavy workload result from higher patient-to-staff ratios as compared to other health care settings. In essence, working conditions serving as possible stressors may increase the mental health concerns of HCWs, which in turn may affect the quality of care being provided to residents in LTC homes.

Public Health Crisis and Economic Stressors

In comparing the COVID-19 pandemic with the “Great Recession and World War 2,” Sinclair et al. (2020) conclude that “specific events frequently define the eras guiding our lives.” As defined by Szklo et al. (2019) in epidemiological terms, “an event is the occurrence of any

disease or health promotion that is discretely characterizable." Likewise, the "event system theory" postulates that occurrences punctuating time and shaping attentions can be viewed as discrete events or happenings diverging from a stable environment (Morgeson et al., 2015**).** In essence, COVID-19 as an event may have created a crisis that made the economic balance of different countries unstable. Further, a correlation between public health crises, financial crises, and stress may be in existence. The impact of both an economic stressor and a public health crisis is evident in negatively impacting the mental health of HCWs (Mucci et al., 2016).

Health care workers have also responded to the economic stressors that COVID-19 public health directives have created for Albertans and other healthcare workers due to being prevented from working at multiple care homes (AHS, 2020; Maunder et al., 2003). Many of these HCWs usually earn a living through multi-streams of incomes while working in multiple continuous living homes, but soon became single-stream earners due to the COVID-19 public health single site order (Syed & Ahmad, 2020). Such orders only added to the mental health issues and financial burdens with which these HCWs had to deal (Syed & Ahmad, 2020). Similar preventive directives were implemented in Toronto to curb the spread of SARS in 2003. The impacts of such directives made matters worse by placing an economic and financial burden on HCWs who previously depended on several streams of income within different continuous living homes (Maunder et al., 2003).

Public Health Crisis and Mental Health of Healthcare Workers

Several epidemics involving very contagious diseases occurred some decades ago. Such pandemics include the Severe Acute Respiratory Syndrome (SARS) of 2003, H1N1 of 2009, Ebola, and the Middle East Respiratory Syndrome (MERS) occurring between 2014 and 2016 **(**Morens et al., 2020). Frontline HCWs have often experienced and suffered a variety of mental

health associated symptoms during the early onset of epidemics attributable to a higher than usual workload, the lack of knowledge concerning the new disease, inadequate personal protective equipment (PPE), and directly taking care of patients (Shen et al., 2020; Zhang et al., 2020; Zhou et al., 2020; Zhu et al., 2020).

During the outbreaks of Ebola, Middle East Respiratory Syndrome (MERS), Severe Acute Respiratory Syndrome (SARS), and Influenza Flu (H1N1), there was increased reporting of anxiety, depression, insomnia, and fatigue amongst healthcare workers (Kim, 2018; Liu et al., 2019). In Central Africa, most nurses caring for Ebola-infected patients reported experiencing loneliness and received counselling during the Ebola outbreak (Hewlet et al., 2005; Liu et al., 2019; Smith et al., 2017). In Taiwan, 38.5% of nurses who provided care to SARS patients experienced depression, 37% had insomnia, and 33% had post-traumatic stress disorder (Su et al., 2007). During the 2003 SARS outbreak in Hong Kong, healthcare workers experienced chronic stress levels with higher depression and anxiety (McAlonan et al., 2007). A cross-sectional study of healthcare workers in Taiwan indicates that 5% of healthcare workers experienced acute stress disorder during the SARS outbreak (Bai et al., 2004). In China, 68.3% to 80.1% of healthcare workers reported being stressed by the SARS epidemic (Chan et al., 2005).

COVID-19 may have increased distress and mental health issues among LTC workers because of the high numbers of reported cases of infection in LTC homes (Rajkumar, 2020; Thakur & Jain, 2020). Earlier studies conducted in China's Wuhan, where COVID-19 originated, show that many healthcare workers had overwhelming psychological distress due to the outbreak (Kang et al., 2020). A recent study conducted in South Africa indicates a steady rise in healthcare workers' mental health problems due to COVID-19 (Robertson & Somaroo, 2020).

COVID-19 is likely to also increase the incidence of problems such as burnout. Between 62% and 95% of healthcare workers in Malawi, Ethiopia, and Kenya had burnout during the outbreak of varying infectious diseases (Dubale et al., 2019). In Singapore, significant levels of clinically diagnosed mental health illnesses such as anxiety at 14.5%, PSTD at 7.7%, and depression at 8.9% have been reported in HCWs during this COVID-19 pandemic (Tan et al., 2020).

Public Health Crisis and Workload of Healthcare Workers

Before the COVID-19 pandemic, HCWs in LTC homes in Canada were facing burnout due to many factors, such as inadequate staffing, long work hours, and the physical and emotional strain of the job. These problems were exacerbated by some changes in government policy which placed budget ahead of care standards, training and pay for LTC homes HCWs. In addition, the Canadian health system was heavily reliant on a precarious, low-wage, non-unionized workforce of temporary workers in direct care roles, leading to instability and unhappiness in the sector (Canadian Health Coalition, 2018; Murali & Banerjee, 2018). Research has found that HCWs burnout is associated with worse patient outcomes and increased system costs (Havaei et al., 2021).

The emergence of a public health crisis such as an outbreak of infectious diseases may further increase the workload and work-related stress among HCWs. Working during a public health crisis with a new and emerging disease, with a lack of knowledge and inadequate PPE, could be daunting for most HCWs, leading to burnout syndrome. This burnout syndrome is often known as an "emotional state of exhaustion," which is usually prevalent amongst HCWs working in key roles and critical healthcare areas worldwide (Zhang et al., 2020). With the emergence of a public health crisis and the increased workload of HCWs, related factors within such an environment could lead to burnout amongst HCWs **(**Bakhamis et al., 2019**).** For

example, COVID-19 has subjected LTC HCWs to a heavy workload because of the intense COVID-19 work protocols and screening introduced in LTC homes (AHS, 2021). Such occurrence may be so because residents in LTC were getting sick and dying at a higher rate than in other medical care settings (CIHI, 2020; Hsu et al., 2020). Higher workloads due to preventive and treatment protocols added to control the COVID-19 pandemic may have further increased distress and mental health issues among LTC workers (Fitzgerald et al., 2009). On top of the added protocols, a lack or delay of adequate PPE could have played a role in the stressors that these HCWs experienced.

COVID-19 and LTC Homes

Residents of LTC homes are more prone to COVID-19 infections because of their underlying chronic medical conditions (CDC, 2020). In contrast to some European countries, more cases of COVID-19 have been reported in LTC homes in the United States, Canada, and other western countries (CIHI, 2020, Hsu et al., 2020). The estimated rate of COVID-19 infection in Canadian LTC homes stands at 35%, with an estimated 81% to 85% death rate (CIHI, 2020; Hsu et al., 2020**).** In Europe, LTC homes' COVID-19 related deaths rates range from 10% in Slovenia to 66% in Spain (CIHI, 2020). The prevalence of COVID-19 in LTC homes suggests that those working in this setting are more likely to experience distress and mental health problems during outbreaks of infectious diseases, implying that COVID-19 may have negatively impacted the mental health of LTC workers. In response, this current research study aims to find out more. The onset of the COVID-19 pandemic witnessed the implementation of protocols and isolation measures across the globe to curb and control the spread of the disease (WHO, 2020). These included physical distancing, hand hygiene, and point of care risk assessment (PCRA) prior to attending to a resident or patient (Alberta Health

Services, 2020). Other measures as outlined by the CDC (2020) advised the isolation of individuals with suspected or confirmed cases of COVID-19, as well as individuals with close contact to any suspected or confirmed cases of the viral disease. The implementation of these protocols is documented in literature reviews as being effective in controlling the spread of the disease (CDC, 2020, WHO, 2020).

Stressors and Healthcare Workers during Previous Epidemics and Pandemics

Previous studies have indicated that healthcare workers experience multifaceted stressors of varying severities during a public health crisis. A major stressor found to have impacted nurses during the MERS and SARS epidemic outbreaks was "loneliness" (Hall et al., 2003; Kim, 2018). Other stressors for frontline healthcare professionals during the early outbreak of COVID-19 in China include "the fear of being infected", "the fear of the epidemic endangering their family members", and "the fear of infecting members of their family" (Zhang et al., 2020). During the H1N1 Influenza outbreak of 2009, stressors related to personal protective equipment (PPE) were noted. These stressors include the consistent donning and doffing of PPE, prolonged donning of the PPE with fears of having their skin damaged, and sub-optimally caring for patients due to the compulsory use of PPE which healthcare workers felt was inconvenient (Fitzgerald et al., 2009). Other stressors quantitatively identified during the COVID-19 pandemic in Alabama, United States include "stress of working with suspected and confirmed positive patients, stress due to additional workload, tasks, and the working environment (detailed work screening and protocols), and stress due to the lack of knowledge about the viral disease (Ali et al., 2020; Cai et al., 2020; Eghbali et al., 2020; Lee et al., 2005; Yancy, 2020). Another study found that a heavy workload, quarantine, changes in lifestyle, worries about the future and their

economic situation were some forms of stressors that negatively impacted healthcare providers' mental health (Eftekhar Ardebili., 2021).

Healthcare Workers' Coping Strategies during Previous Epidemics and Pandemics

Studies have indicated that frontline HCWs workers frequently develop coping mechanisms that help alleviate stress related to a public health crisis. During the MERS-CoV epidemic, HCWs utilized coping strategies such as equipping themselves with knowledge about the disease, avoiding media news relating to MERS-CoV disease, relaxation activities, venting emotions, and avoiding overtime at work (Khalid et al., 2016). During the SARS epidemic, different HCWs workers utilized adaptive or maladaptive coping mechanisms, with different results (Maunder et al., 2006). HCWs that applied adaptive coping mechanisms such as problem-solving skills and positive reassessment experienced positive outcomes, while those using maladaptive coping skills such as self-blame and escape-avoidance experienced a higher level of psychological distress (Maunder et al., 2006; Sirois & Owens, 2021).

Healthcare Workers and their Coping Mechanisms during COVID-19

During the early period of the COVID-19 pandemic, healthcare workers across the world developed some coping mechanisms that enabled them to effectively handle the stressors they experienced while caring for patients. Studies indicate that healthcare workers utilized various resources from formal interventions to individualized coping mechanisms (Muller et al., 2020). The most common coping mechanism healthcare workers utilized centred around family and social support from friends via the use of telecommunications (Cia et al., 2020; Louie et al., 2020; Sun et al., 2020). Some healthcare workers reported that they sought help from a psychologist, counsellor, therapist, and other mental health professionals (Cai et al., 2020; Kang et al., 2020; Liu et al., 2020). Healthcare workers from another study described using the

psychological resources they found from the internet to be very useful to them in managing their psychological stressors related to the pandemic (Kang et al., 2020; Zhang et al., 2020). Some other forms of coping strategies adopted by healthcare workers included avoiding working overtime to reduce their risk of exposure to COVID-19 patients, following strict protective measures (PPE donning, handwashing), emotional expression, venting, reading, spending time with their children, drinking alcohol, and religious and spiritual activities such as prayers, meditation, and mindfulness music (Ali et al., 2020; Sun et al., 2020).

Managerial roles during Public Health Crisis

Administrators of LTC homes tend to provide timely, clear, and concise communications to workers to help reduce distress during public health crises (Maunder et al., 2003). However, not all LTC homes provide adequate resources to care for frontline HCWs, which increases the risk of experiencing psychological distress and chronic mental problems during a public health crisis such as the COVID-19 pandemic. A research study carried out in Indonesia during the COVID-19 crisis found that HCWs complained that they lacked personal protective equipment (PPE) (Tosepu et al., 2021) which could be a stressor for fear of being infected**.**

Interventions to Support the Mental Health of Healthcare Workers during COVID-19

The inception of the COVID-19 pandemic shows that some form of support for the mental health of HCWs could be very beneficial to these workers globally. Such support could include things like offering counseling services, providing ways for HCWs to stay connected with colleagues, family, and friends, offering financial assistance for expenses and any other emotional or practical needs. Also providing access to mental health resources such as online support groups, stress reduction strategies, and educational or psychological interventions. Additionally, many organizations could provide mental health screenings and assessments

available on demand for HCWs, and some local health systems opened up crisis centers for HCW emotional support.

The outcome of this support system is proven to be effective amongst HCWs. One such intervention was reported in China, which was online or telephone-based therapy (Zhang et al., 2020). In Spain, the support system for HCWs involved in-person psychological interventions in helping manage the stressors created by the COVID-19 pandemic (Priede et al., 2021). The UK adopted digital approaches such as e-package, education, and support around psychological wellbeing, mental health consultants, self-care, and organizational strategies (Vera San Juan et al., 2020). The goal of these different interventions and support was to improve e the emotional wellbeing of these HCWs and reduce any psychological arousal (Priede et al., 2021). Interventions to help improve communication across all boards with HCWs are very helpful; they enabled the reduction of anxiety related to dysfunctional communication during an uncertain event such as the current COVID-19 pandemic.

CHAPTER 3: METHODS

This chapter describes the methods and strategies I utilized for my data collection and analysis. This chapter begins with my philosophical worldview and its relevance to my research study. Following this, I describe my research design, setting, and the precise method, and criteria utilized during the process of recruiting participants for this research study. Subsequently, I present detailed information on the data collection, data analysis process using Braun and Clarke's thematic analysis, and data management. Finally, I discuss various strategies to ensure rigour and trustworthiness, compliance with ethical standards, potential risks, and assessment of this research study.

Philosophical Worldview

Different authors within the qualitative research field have argued that the philosophical perspective of any researcher frequently influences the goals and outcomes of a research study (Guba & Lincoln, 1994; Huff, 2009). The philosophical worldview of any researcher often dictates what constitutes knowledge and how a phenomenon under investigation can be studied (Antwi & Hamza, 2015; Weaver & Olson, 2006). A qualitative researcher's philosophical stance usually provides the lens through which any research should be conducted (Mayan, 2016).

As an individual, I believe that my set of beliefs and values informs my actions daily. I am of the opinion that every individual's perception of life is unique to them and that they have the right to ascribe meanings to the experiences they encounter or feel. Being a healthcare provider with specialization in the mental health field, while interacting with my colleagues and residents alike, I have come to observe how each individual portrays their own experiences and perceptions of any phenomenon in a unique way, ascribing meaning to them. In essence, this implies to me, as a person and as a researcher, that each individual's realities are constructed on the premise of their subjective meanings of any given phenomena.

I also believe that each individual possesses meaningful experiences that may resonate with the experiences of other individuals, thereby laying the foundation to describe the shared understandings within these experiences. As such, I always try to bridge the gap between their views and my views of a specific phenomenon to collectively reach a shared understanding on such subject matter. With my belief system, I realized that my research approach to this study best aligns with the constructivist paradigm.

This worldview asserts that knowledge is socially constructed by both the researcher and participants in a research study and implies that multiple realities and truths exist (Guba & Lincoln, 1994; Mayan, 2016; Schwandt, 2000). The constructivist often tries to explore the intricate nature of the experiences associated with how people live and interact within their social world by understanding the realities created by them (Appleton & King, 2002; Stringer 1996). As a constructivist researcher, I believe that through the complex interplay of their social interactions, individuals give meanings to the realities, events, and phenomena they experience. Being a regulated healthcare provider within the LTC setting during the COVID-19 crisis, I encountered varying experiences via interactions with my coworkers and residents, and how they ascribed meanings to these experiences. I have also come to attribute different meanings to the realities I face daily as a healthcare provider. My constructivist worldview enabled me to embrace my experience, informed my views of the researched phenomenon, and impacted my social interactions with my colleagues.

Acknowledging that my participants and I may share the same experiences in attending to suspected cases of COVID-19 residents, and the overall experience of going through the pandemic of all the aforementioned stressors, I believe that through my research inquiry, we may know what the nature of our realities are, as well as nurture the co-construction of knowledge

that is context-dependent. I am confident that my constructivist worldview aligns with the objectives of this study that describes the stressors and coping experiences of healthcare workers in the LTC setting during the COVID-19 crisis.

The principles of constructivism concerning the ontological belief postulate that multiple realities, which are socially constructed with intangible mental constructions, exist (Guba & Lincoln, 1994; Mertens, 2019). In essence, the perspective of constructivism supports a relativist ontology (Appleton & King, 2002). In considering how this relativist ontological approach to the phenomenon being investigated applied to me, I realized that there isn't a single, objective way things were in LTC homes during the COVID-19 pandemic. However, the collection of individual stories offers me valuable insight into the multiple realities and experiences of participants in this study. This is so because we each have constructed our realities together with the community (LTC setting) we find ourselves working as healthcare providers during the COVID-19 pandemic. Therefore, through this research inquiry, I seek to explore, and describe each HCW's multiple realities and perceptions with some commonalities relating to their stressors and coping experiences while providing care to residents in LTC homes during the COVID-19 pandemic.

The epistemological perspective of constructivism posits that knowledge is subjectively co-constructed between researchers and participants through an interactive approach (Appleton & King, 1997; Guba & Lincoln, 1994; Mertens, 2019). The development and exchange of knowledge could be individualistic or collective (Lincoln et al., 2018). With this in view, I am aware that I am not separate from the study participants, which implies that I will be closely interacting with my study participants throughout this research process to gain access to the

multiple views and realities that may exist, and as such, generate findings that can be "literally" created (Appleton, 1997, Creswell & Poth, 2018; Gunzenhauser, 2006**;** Guba & Lincoln, 1994).

The axiology of qualitative research is that of a researcher and the method being used, readily considering the "value-laden nature" of the focused study and how both his/her values and biases inform the research study (Creswell & Poth, 2018). During the COVID-19 crisis, my personal experiences as a regulated healthcare provider in a LTC home played a significant role in coming to the research focus and how I went about researching the phenomenon. I observed that some of the HCWs I worked with may have exhibited symptoms of depression and anxiety on a daily basis, thereby impeding their ability to perform their duties as healthcare professionals to the best of their abilities. A pattern of consistent sick calls and a series of stress leaves amongst my colleagues soon emerged. Frequently and via interactions with them, a number of my colleagues subjectively expressed to me their psychological fears as well as concerns for the safety of their families from contracting the COVID-19 disease.

Having observed how my colleagues responded to the COVID-19 crisis, I sought to capture and understand what they were experiencing. To enable this, I realized a qualitative research method would be suitable to afford me the opportunity to analyze and interpret detailed descriptions of what meaning HCWs in multiple LTC homes ascribe to their experiences, thereby discovering meaningful descriptive patterns which is consistent with the axiology of qualitative methods (Kivunja & Kuyini, 2017). In undergoing this research, I am aware that my personal experience and biases as a HCW myself played a role in influencing views of the narratives being presented by my participants. Some of my biases include having a prior bias of assuming that all HCWs that worked in a LTC home had one mental health challenge or the other before and during the pandemic, having a researcher-subjectivity bias of my personal

values and preferences regarding the phenomenon being explored, and having an expectancy bias of me unconsciously expecting a certain result from the research study due to my prior bias. However, to ensure the rigour and trustworthiness of my research, I was cognizant of any biases and interests that may shape the findings of my research study and ensure that the voices of my participants are appropriately heard in this study.

Relationship between my personal experiences, social constructivism as an approach, and the research study design

Working as a healthcare professional, I have come to recognize the subjective concerns echoed via the words of my colleagues during the COVID-19 pandemic. I believe that each person assigns a specific set of meanings to their reality. A person may experience a certain phenomenon but attribute a different meaning to it, while another may experience the same phenomenon with a different reality and meaning. As a healthcare professional in the mental health field, I observe that each resident's reality is usually unique to them. A resident may be experiencing hallucinations about a specific phenomenon and, as such, may voice what he/she is experiencing at that point in time. As a social constructivist, I strive to adopt the perspective of this resident when formulating my interpretation of their experiences. Through this process, I aim to gain an understanding of their reality, and thereby identify the most suitable approach to provide a meaningful interpretation.

In like manner, since the onset of this pandemic, many of my colleagues have subjectively voiced their experiences and concerns to me. What I hear each of them state is different from what the next person is saying, despite being the same pandemic experienced by all. Some complain of anxiety, having insomnia, fear of the unknown, etc. In all of these echoed concerns, I observed that every person had a different reality and multiple meanings they

expressed to the current pandemic. As a social constructivist, I believe that reality is often created by individuals (Mo-Yee & Gilbert, 1999). Knowledge may be constructed when a system within a social context is stressed to the point of change to fit with the environment (Elkaim 1990; Held, 1995; Mo-Yee & Gilbert, 1999). In essence, during the COVID-19 pandemic, knowledge was evolved within the LTC homes as most of these HCWs were constantly adapting to new changes within their environment to keep them and the residents safe. Frequently, individuals from diverse backgrounds and cultures utilize social interactions as a tool for categorizing their own sense of reality and truth (Gergen, 1994).

As a social constructivist, I aim to understand, interpret, and make sense of what each HCW in my sample was experiencing during the COVID-19 pandemic; hence, I decided to utilize qualitative descriptive design (QD). I believe that using the QD enabled me to obtain specific details and perspectives informing each HCW's view of the COVID-19 pandemic on their mental health. My constructivist paradigm often tries to explore the intricate nature of the experiences associated with how people live and interact within their world. Utilizing this research design (QD) was appropriate for this research inquiry in that, it present the experiences of participants in this study in a detailed and straightforward description (Sandelowski, 2000). By conducting a thorough exploration of the phenomenon via a qualitative descriptive (QD) design, I was able to provide a nuanced understanding of the experiences of HCWs. Due to the limited amount of information available, this approach proved to be very useful. Since the stressors and coping mechanisms of each HCW during a public health crisis are very subjective, using this QD was best suited to capturing each HCW's experiences.

Methodology

This study followed Braun and Clarke (2017) and used a qualitative descriptive design (QD) to understand the various experiences of HCWs in LTC homes during the COVID-19 crisis. QD falls within the naturalistic inquiry paradigm, and provides a framework for describing, interpreting, and understanding events and experiences in the natural setting (Kim et al., 2016; Lincolin & Guba, 1985**;** Sullivan-Bolyai et al., 2005). Sandelowski (2000) defined the QD method as allowing for a comprehensive description of a phenomenon. Compared to other qualitative research designs, QD is less theoretical, but researchers can still choose to work within a theoretical framework (Bradshaw et al., 2017). In essence, I recognized that experientially, we may all have a different reality, and as such, using the QD design can bring all of these experiences together into one research project. The QD method chosen for this research is an asset that allowed me to honour each participant's distinctive experiences of COVID-19 without editorializing them. Utilizing the QD design and as a social constructivist, I endeavoured to meet each participant in their reality. As such, this method enabled me to describe what each participant experienced without me imposing a particular theory but taking it all as they said and looking for the things that thread it all together. Through this design, I looked for patterns and themes from my participants concerning the phenomenon being explored. One of the strengths of QD is that researchers have the flexibility to work within any theoretical framework (Neerdgaard et al., 2009; Sandelowski, 2000, 2009).

QD is preferred over other qualitative research designs when providing detailed descriptions of individuals and groups (Kim et al., 2016; Sullivan-Bolyai et al., 2005, Willis et al., 2016). QD provides a lens for describing human experiences in a more detailed and comprehensive manner (Sullivan-Bolyai et al., 2005). Compared to other qualitative research

designs, QD is more flexible because research questions are mostly descriptive (Kim et al., 2016).

QD is criticized for being "*A-theoretical*" (Milne, 2005). Researchers can choose to work within a theoretical framework depending on their research aim because of its flexibility. Although QD research may be less theoretical, during the analysis of my data, I was able analyze and synthesize the descriptions obtained from my participants through the social constructivist lens. Using my understanding of social constructivism as a framework to interpret, analyze, and synthesize the descriptions provided by my participants, I evaluated each description for patterns, connections, and inconsistencies to interpret the meaning and message behind each one. I also cross-referenced these individual interpretations with the knowledge gained from researching the social constructivist perspective. From there, I formed a holistic set of conclusions about the social constructivist nature of my findings. As such, through interviews with each participant in this study that worked in LTC homes, I was able to uncover the struggles, stressors, and coping mechanisms they experienced, which in turn informed the development of interventions at the micro, meso and macro levels that met the needs of HCWs in LTC homes in this study during the COVID-19 pandemic. QD studies more often seek to thematically describe phenomena inductively instead of trying to develop a theory from the data (Sullivan-Bolyai et al., 2005; Sandelowski, 2000).

The QD method has been used extensively to describe HCWs' and patients' experiences (Neergaard et al., 2009). This method is popular amongst expert nursing researchers (Neergaard et al., 2009; Sandelowski, 2000). The use of such QD design richly provides clear and accurate descriptions of a studied phenomenon. QD appears relevant for research on health issues because it enables the researcher to explore meaning and how participants make sense of their world.

It can also result in important recommendations for policy changes, as well as being relevant for practitioners (Chafe, 2017; Sandelowski, 2000).

The design allowed me to describe each participant's experiences in detail with respect to the extent of the impact of COVID-19 on their mental health and the coping mechanisms they employed. Using this QD design helped me communicate the study findings clearly, straightforwardly, and conveniently to different audiences through the theoretical lens of a social constructivist. This research design ensured that HCWs' voices in LTC homes during this COVID-19 pandemic were given precedence in this study.

Study Design

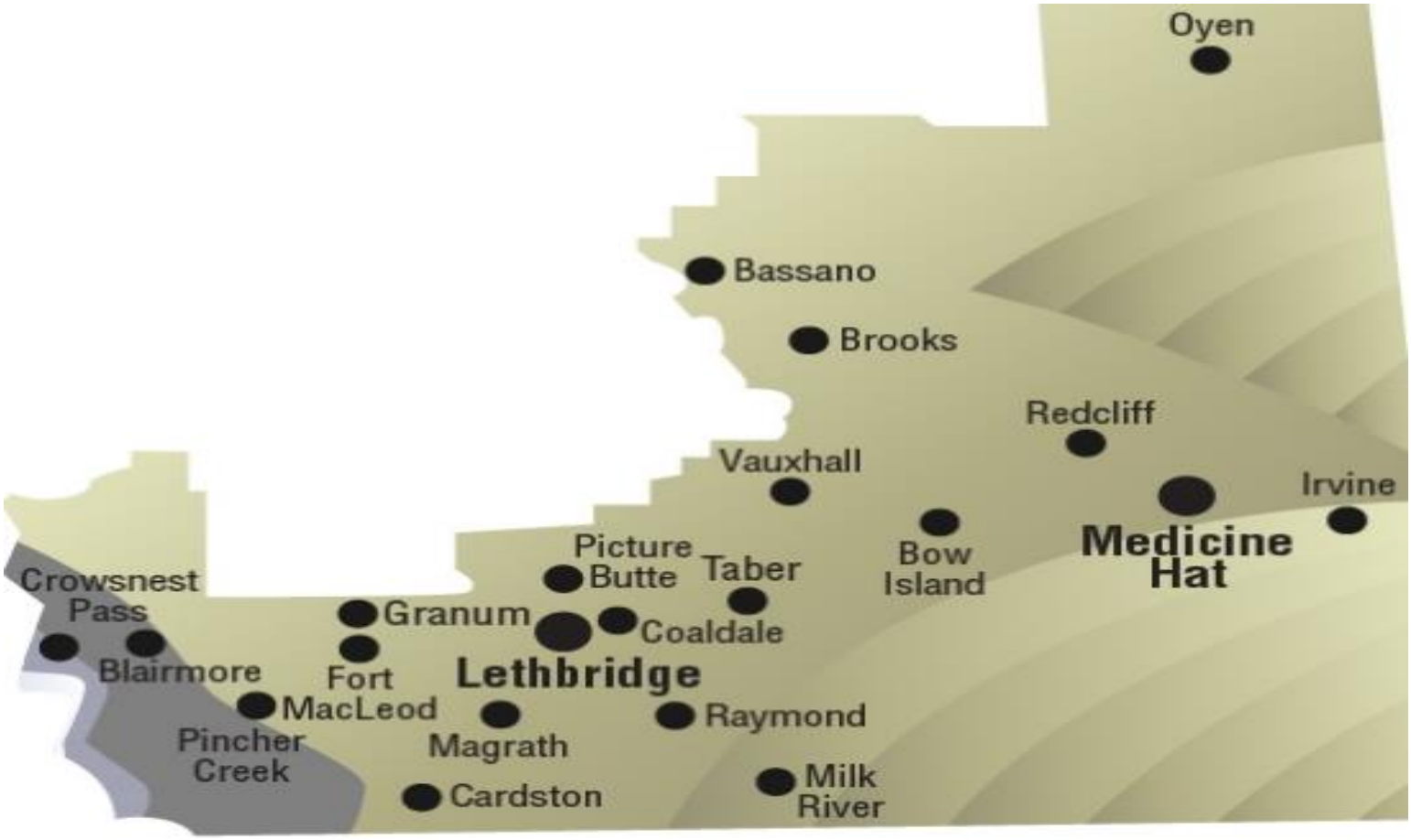
Research setting

Due to demographic proximity and ease of access for the researcher, study participants were recruited from four LTC homes within the Southern Zone of Alberta. I initially proposed to include LTC homes from the following cities: Medicine Hat, Lethbridge, Brooks, Crowsnest-Pass, Fort Macleod, and Taber (Figure 1). However, as my research study went on, I was only able to obtain data from four LTC homes in three cities to include Fort Macleod, Lethbridge, and Medicine Hat. The criteria for participation within these locations included LTC homes with confirmed cases of COVID-19 outbreaks within this region of Alberta. These LTC homes implemented preventive measures to include screening at the entrance of each facility, continuous donning of facemasks and face shields by workers, and other protocols as directed by Alberta Health Services (AHS). Excluded from this research are LTC homes with no confirmed cases of COVID-19, acute care, and supportive living settings in and out of the Southern Zone of Alberta, as well my current setting where I work to prevent "backyard"[1] research (Creswell & Poth, 2018).

[1]A term used to describe research conducted in an environment in which the researcher already holds another role.

Figure 1

Map of Southern Alberta



Adapted from 2020 Alberta Health Services (https://www.albertahealthservices.ca/assets/about/publications/ahs-ar-2020/zones.html). In the public domain.

Ethical Considerations

Ethical considerations throughout and after the project are of utmost importance as they require that the researcher respect persons involved in the study, ensuring the *welfare* and *justice* of participants (Creswell & Poth, 2018). This research study is guided strictly by the ethical principles relating to non-maleficence, beneficence, confidentiality, and the 2018 Canadian Tri-Council policy statement (TCPA 2) on ethical considerations for a research study. I took the TCPA2S core training to better understand these ethical principles. As such, before the

commencement of this research study, I submitted a proposal to the Health Research Ethics Board (*HREB*) at the University of Alberta for their approval. After three to four weeks with the HREB committee of the University of Alberta, I received approval for my project to proceed (Ethics ID: Pro00117246). Upon obtaining ethics approval, I proceeded to the data generation phase.

Selected participants for the research study were sent letters of invitation electronically outlining the research, including the purpose of the study, research questions, participant's rights, and the appropriate steps and measures taken to protect their identities. I requested that each participant inform me of their preferred pseudonyms to ensure the protection of their respective identity (Allen & Wiles, 2016). To prevent the identities of each participant being traced by the leadership of their respective place of work, participants were assured that the contents of their individual interviews would not be disclosed to the management of their workplace. I did this by maintaining each participant's privacy and confidentiality by deleting any information that could be identifiable to them and replacing names with pseudonyms. Each participant's details and stories/narratives are identified through pseudonyms. I also informed each participant that this research study was voluntary and that they had every right to leave the research study at any given point in time.

In ensuring adequate protection of the identities and information of each participant, I ensured all technological devices involved, including my computer where the interviews took place via the Zoom platform, were password protected and safely kept. Each participant was assigned a password to log in to the Zoom interview session. Once each participant logged in to the Zoom meeting, I locked the meeting from the security menu, preventing additional attendees from joining the meeting. To further ensure security and confidentiality of each participant, I was

the only person with the ability to record each interview, and I employed the use of the End-to-End Encryption (E2EE) on Zoom. This ensured that the communication between myself and my participants were encrypted using the cryptographic keys known only to me (Zoom, 2021). It is noteworthy to know that the Zoom virtual platform company is compliant with the Health Insurance Portability and Accountability Act and supplemental legislation collectively referred to as the HIPAA rules (HIPAA) - the lay out privacy and security standards that protect the confidentiality of Protected Health Information (PHI).

Participants were given the option of having their video turned off during each interview. Participants who had their cameras turned off during the interview had their session recorded only in audio format. Those who opted to have their camera on had their audio-visual session recorded; these individuals were observed for non-verbal cues during the interview.

Participant sampling and recruitment

Sampling. I used a purposive sampling strategy to identify eligible participants who were willing and able to answer my research questions (Benoot et al., 2016; Patton, 2002; Palinkas et al., 2013). This non-probability sampling technique helped inform the selection of healthcare staff in LTC homes with experiences of directly taking care of residents during the COVID-19 pandemic, the phenomenon I was exploring. Depending on the project topic, population under study, and nature of the research questions, some authors differ on the required sample size for a QD design (Sullivan-Bolyai et al., 2005). Some have recommended varying numbers of sample size for qualitative research from 8 to 12, and 12 to 60 (Baker et al., 2012, Bonde, 2013; Byrman, 2012). I planned on recruiting a sample size between 10 and 15 participants, and I ended up recruiting 11 participants for this study.

Eligibility Criteria. Specific criteria to select interested participants were employed to include (a) having a professional status as either a registered nurse (RN) or licenced practical nurse (LPN); (b) being an unregulated health care aide (HCA); (c) being an unregulated recreation and assistant therapist; (d) having at least one year experience working with residents in the LTC homes; (e) be currently employed at a LTC home, either as a casual, full-, or part-time staff; (f) have had at least six months experience providing care to residents with probable, confirmed, and/or suspected cases of COVID-19 in a LTC home; and (g) be willing to share about their mental health experiences while working in a LTC home prior to COVID-19 and during COVID-19 pandemic. Having these eligibility criteria was of utmost importance because it helped me identify the right participants with diverse experiences of directly attending to residents in LTC homes. Participants with fewer than six months experience working with probable, confirmed, and/or suspected cases of COVID-19 were not recruited as they could not provide detailed information and experiences into the phenomenon being explored. It was paramount to this research study to understand how the COVID-19 pandemic may have contributed to the mental health of HCWs in LTC homes. The recruited participants varied in age, gender, number of years working within LTC homes, and locations of employment.

Participants excluded from research study were social workers, housekeeping staff, security staff, spiritual counsellors, finance department staff, human resource staff, volunteers, managers, and administrators of LTC homes in and outside of the Southern Zone of Alberta. These individuals were excluded because of their very limited direct interactions with most of the residents of LTC homes during the COVID-19 public health crisis.

In recruiting interview participants, I had planned to reach out to the management of the identified LTC homes in the Southern region of Alberta. By doing this, I sent the management of

each LTC home an introductory email with an e-copy poster of my study and my contact details, requesting permission to conduct my study. In my email to the leadership of these homes, I requested that my poster be shared with all staff and interested staff should reach out to me via phone or email. Due to the COVID-19 crisis, I also planned a virtual presentation/workshop for all staff to hear my pitch regarding this research, but this did not happen. This presentation was to be coordinated in collaboration with the respective management of the proposed LTC homes. I waited a month for a response from prospective participants of the LTC homes where introductory letters and information regarding my research study were initially sent, but I received no response from the prospective participants.

After waiting for a month without receiving a response from any HCWs in the LTC homes where letters were sent, I decided to utilize my initially proposed *gate-keeper* strategy (Andoh-Arthur, 2019). Here, I reached out to individuals who are leaders (site administrators, directors, and managers) in my network within the healthcare industry on effective ways of recruiting participants for my study. These are leaders that I have known prior to the research study for a while and who consistently mentored me, and demonstrated unique leadership skills in guiding me through my journey as a health care professional. This strategy worked and from there, I began to receive emails from HCWs/participants informing me of their interest in my research study. From the first interview to the last, I utilized the snowball recruitment strategy as I asked interviewed participants to spread the word regarding my research study. Some of the participants even inquired after their interviews if they were allowed to inform their colleagues at work about the study. Participants who showed interest in this study were selected solely on the basis of the inclusion criteria. However, others who expressed interest but did not meet all the criteria were politely thanked for their interest and excluded from the study. Upon being

contacted by these 11 prospective participants, I negotiated with them to confirm a mutually appropriate and suitable date and time for individual interviews.

When I reached a point where I was receiving repeated concepts with minimal additional information, and no other individuals were reaching out to take part in my research, I ceased recruiting participants.

Data Collection

QD follows similar data collection and analysis techniques as other traditional qualitative research designs. Data collection is done primarily through semi-structured interviews, but other collection strategies such as focus groups, observations, and document review are also used (Colorafi & Evans, 2016; Stanley, 2014). A semi-structured data gathering approach allows for collecting rich data on participants' experiences, typically in their natural settings (Doody & Noonan, 2013; Lincoln & Guba, 1985; Patton, 2002). Participants can freely express themselves in semi-structured interviews (See Appendix E) (Sandelowski, 2000).

Due to the COVID-19 crisis, data was collected using virtual teleconference/ communication platforms. Eligible participants were invited to take part in the interview via videoconferencing using the Zoom platform, which was conducted from my private home study. By conducting interviews from my home library, it allowed me to follow the COVID-19 public health guidelines and protocols laid by the government of Alberta to limit social gatherings as much as possible. Each participant was informed about situating themselves in the natural setting they found suitable, safe, private, and convenient (Athens, 2010). All participants were interviewed from the comfort of their homes.

Prior to commencing each interview, oral consent was obtained from all participants. This was achieved by sharing my screen for each participant to read the consent form and

verbally asking about their consent to the study. All participants said yes to all the information contained in the consent document (See Appendix A). To maintain the security of participants' information, orally consented forms were saved in an encrypted folder on my password protected secured computer. Each participant was assured that their privacy and confidentiality would be maintained. These orally consented forms contained elements covering the participant's rights, purpose of the interview, and explanation of whom to contact with questions during the study. Consent to have each interview recorded via the Zoom platform was also stated in the consent form. Due to the nature of the phenomenon explored, participants were informed that should the need arise to seek help, a list of professional counselling and mental health supports was available for them (See Appendix F). Also included in this informed consent form was permission to carry out a member check via a follow-up call with each participant to review key themes with them (See Appendix C). Most of the participants consented to this, while one participant refused. The non-maleficence principle postulates that a researcher is responsible for ensuring that participants' well-being (social, emotional, and physical) is well maintained while ensuring that they volunteered willingly and are not negatively impacted by such research (Rubin & Rubin, 2012).

The demographic information for all participants was collected using a questionnaire over Zoom before the interviews commenced (See Appendix D). Each participant's demographic information included (a) age; (b) professional designation; (c) number of years working in the LTC setting; (d) educational background; (e) religion. Gathering this demographic data served to inform my research, providing me with the necessary cues to gain insight into the contexts, biases, and preconceptions of each participant (Creswell & Poth, 2018). For example, the religious aspect of the demographics enabled me to understand the role of faith in the

participants' respective experiences. Thus, by utilizing this demographic information, I was able to gain a better comprehension of each individual's background, social context, and the potential implications thereof. This, in turn informed my data analysis and interpretation. After receiving consent to proceed with the interview from each participant, an in-depth interview commenced and was completed. The interviews were semi-structured and lasted 30 to 90 minutes. An interview guide (Appendix E) was available to help provide direction. This interview guide was developed with probing and open-ended questions**.** Probing questions were utilized to obtain rich data based on each participant's responses to the main questions. I followed each participant's lead to explore the chosen research topic effectively. To begin the interview, I used icebreaker questions (Creswell & Poth, 2018). During each interview, participants were advised that they did not have to have their video turned on. Out of the 11 interviewed participants, only four opted to turn on their video.

Reflexivity

Reflexivity is a process characterized by two-way influences in qualitative research interviews; both the researcher and the participant may be subject to changing perspectives throughout the interaction (Holstein & Gubrium, 1995). According to Yin (2010), this reciprocal influence exemplifies a bi-directional exchange, as the researcher's assumptions can affect the participant, and the participant's feedback, in turn, can disrupt the researcher's outlook. The use of reflexion helped me to clarify my pre-conceived ideas about and assumptions about the stressors and mental health challenges that HCWs in LTC homes experienced pre and during the COVID-19 pandemic. Having this reflexion also helped me view my data through the lens and voices of my participants. Prior to embarking on this project, I had only conducted quantitative studies and lacked knowledge about qualitative research. My background in

Microbiology, Nursing, as well as my experience as a HCW in different healthcare settings; LTC homes inclusive, likely impacted my perception and methodologies for this research. Despite the difficulty, I attempted to set aside my preconceived ideas, and opinions that may have stemmed from my experience as a HCW myself about the phenomenon being research during each interview to minimize barriers to genuine communication. This served to lay the groundwork for my successful data collection that further established a trust relationship between myself and each participant, thereby enabling these research participants to freely express their experiences without reservation. Additionally, I was able to reflect on the trustworthiness of the research process to verify that my interpretations of the data accurately represented the perspectives and experiences of the research participants by consulting with some of them to gain confirmation. Through this study, I was able to gain insight into how each participants conceptualized their experiences, knowledge, and beliefs within the context of the phenomenon being explored.

As a trained mental HCW provider, I was cognizant of potential reactions, and questions that may be upsetting to each participant during the interviews. To mitigate and manage any reactions or upsetting questions, I verified with each participant if they were still interested in going on with the interview or if they wanted to have some minutes to break away from the interview. However, none of the interviewed participants expressed any traits of unease or upsetting reactions during the interviews. Though there were moments of longer-than-usual pauses attributed to emotional reactions and some non-verbal cues for those who had their camera on, participants were able to manage their emotions. Being a HCW, I believe that I may have certain pre-existing notions and assumptions.

In my study, I observed the participants exhibiting moments of quietness, and pauses that could be attributed to emotional reactions. Through my observations, I noted my own

assumptions and perceptions regarding how the participants may have been feeling, in comparison to their verbal and non-verbal cues. Additionally, I identified my own biases as I had earlier mentioned; whether they were consciously documented in my findings or hidden in the analysis. I continually reflected upon any potential assumptions that I may have made in order to interpret the data objectively.

Data Analysis

After obtaining data from each participant, each interview was immediately transcribed through verbatim transcription with the aid of a Computer Assisted Qualitative Data Analysis Software (CAQDAS) specifically, the "NVivo" application (Auerbach & Silverstein, 2003; Creswell & Poth, 2018; O'Leary, 2017). I checked for accuracy of the transcribed interviews against the original recording before commencing the coding process. These transcribed interviews were analyzed using the Braun and Clarke (2006; 2017) thematic analysis process to explore the various themes and experiences of interviewed participants. Some studies have also suggested the use of thematic analysis as very suitable for data analysis (Bradshaw et al., 2017). I chose thematic analysis because it enabled me to examine and understand my participants' different perspectives, highlighting their shared commonalities and varying differences.

Using Braun & Clarke's (2006; 2017) approach to thematic analysis, the data were analyzed in great detail, coded, and categorized with the generation of themes. This analysis consists of six steps**:** (a) *Becoming familiar with my obtained data.* In this step, I ensured that I familiarized myself with my data by re-reading every single line of text of each transcript multiple times. This afforded me the opportunity to gain an overall understanding of the data. Also, while in this stage I took important notes and impressions in becoming familiar with my data. (b) *Generating my initial code by assigning them to my data to describe the content.* My

main goal for this step was to ensure that data were well organized and structured in the most appropriate and effective way possible. I generated different codes using the "NVivo" application to help me capture essential phrases and expressions of views about my data. During this process, I was looking for repeated phrases, and ideas, and assigning them to categories based on their relevance to the phenomenon being explored. I wanted to ensure that each code was meaningful and significant to the data. I used a combination of subjective and objective criteria to determine when an idea or concept was essential enough to be coded. For example, the phrase *understaffing* was mentioned more than three times, and was recurring throughout the data, then I deemed it essential enough to code. These codes were then generated into different categories based on their similarities and differences. Using this overarching categorization system was to better understand the data and to create meaningful connections between the various elements, and to provide a more focused approach to organizing and analyzing my data. By breaking down the data into specific categories, it allowed for more in-depth analysis of the data and to draw connections between the different elements. Having codes as labels assigned to different sections of the data often assists in organizing key concepts and ideas while maintaining the context through which these concepts occur (Holloway and Wheeler, 2010). (c) *Searching for thematic patterns across the different and various interviews.* Once I had generated the codes, I closely examined codes to find which fit together into potential themes. (d) *Reviewing the identified thematic patterns*. In this step, I reviewed, identified, and modified the potential themes identified earlier. Here, I focused on ensuring that relevant data for the themes were appropriately gathered. I also endeavoured to understand if these potential themes made sense, and if the data was relevant and supported these identified themes. I also had the opportunity to dialogue with my thesis supervisor regarding my identified themes. (e) *Defining and naming the*

identified themes. This step refines the codes and revise the themes. This step enabled me to see the full picture and overarching themes by naming and describing each of them, as well as their relationship to the overall story of my data analysis. (f) *Producing my report through a write up.* This step basically forms Chapters 4 and 5 of my thesis involving the findings of my data thematic analysis (Braun & Clarke, 2006; 2017). In this step, I was able to depict the phenomenon being studied by relating them to my research questions and literature review.

Data Management

After data collection, I ensured that all interviewed participants' privacy and confidentiality were always protected. I did this by keeping all recorded audio-visuals and electronic transcripts saved in an encrypted folder in my password-protected and secured document folder on my computer. Furthermore, I saved all collected data on my encrypted external mobile hard drive that served as a backup. All physical or paper data, including transcribed interviews, demographic forms, informed consent forms, and other related materials, were secured in a locked filing cabinet accessible to me alone. All information pertaining to participants, my journal, and external hard and flash drives containing my research information were password protected and stored in a safe place accessible only to me.

After the completion of this research, all data will be stored and secured on the password protected servers of the University of Lethbridge for a maximum of 10 years, after which all information will be destroyed.

All hard copies of transcribed interviews were kept in a locked safe accessible only to me, to ensure the confidentiality and protection of all interviewed participants. Recruiting participants from my workplace for this research ("backyard" research) was avoided to prevent a power imbalance between myself, being the researcher, and participants who are known from my

workplace (Creswell & Poth, 2018). Though obtaining data from my workplace would have made my research study convenient and more straightforward, such a move could eventually affect the quality of data that I obtained (Creswell & Poth, 2018).

Ensuring Rigour & Trustworthiness in This Study

For this study, I adopted Lincoln & Guba's model of trustworthiness (Lincoln & Guba, 1985; Morse, 2018), which ensured the rigour of my research. This trustworthiness criteria consists of four major components: (a) Credibility, (b) Dependability, (c) Confirmability, (d) Transferability.

Credibility. A lack of credibility poses a threat of misinterpreting participants' comments. Credibility focuses on the "fit" between the participant's views and the representation of such views by the researcher (Tobin & Begley, 2004). Understanding each participant's perspective implies that the researcher pays close attention to what each participant says and how they say it (Bryman & Bell, 2007; Creswell & Poth, 2018; Neuman, 2004). Utilizing the open-ended questions in my interview guide ensured that participants could freely present their views and perceptions on the phenomenon being explored (Liamputtong, 2013). The open-ended questions that resulted in participants freely presenting their views allowed me to avoid suggestive or leading questions. This form of strategy enabled me as the researcher to allow my participants to decide what was relevant to discuss, thereby encouraging a more natural and free flow of conversation. By doing this, the majority of my participants freely expressed more than just their initial response, instead offered further insight and detail into their thoughts and feelings through their responses. I also ensured that I immersed myself in the data by immediately transcribing each interview verbatim, listening to each interview several times, and proofreading all written transcripts multiple times to aid in assessing the accuracy of my

transcript. In doing this, I became more familiar with participants' experiences. Also, at a point in my data collection, I asked participants to clarify any responses that I thought were subject to two or more interpretations. To limit the chances of misinterpreting any of the responses from participants, I carried out a member check with five participants to review critical themes with them, as well as to validate the findings of my research (Bradshaw et al., 2017; Bryman & Bell, 2007; Gunawan, 2015). These participants were asked during the interviews if they'd like to be reached to carry out this member check. Participants who displayed enthusiasm and interest about the study during the interviews were asked to partake in a member check process, with further inquiries.

Dependability. For dependability, a detailed account of an individual's research activities must be available for scholarly auditing of the qualitative researcher's findings (Lincoln & Guba, 1986). To ensure this step was met, a detailed, logical, and traceable record/audit trail of the steps taken (see appendix H) during the course of the research process was maintained (Tobin & Begley, 2004).

Confirmability. Confirmability explains how a researcher ensures that during the data collection and analysis process, findings are logical and not influenced by the assumptions, imaginations, and experiences of the researcher (Mayan, 2016). To limit the chances of my voice, previous experiences, and opinions influencing this research study, I consistently engaged in reflective journaling from the onset of my research thesis (Bradshaw et al., 2017) and throughout the research project. I also approached the data through the voices and lenses of the study participants (*during my data collection and analysis*), as it allowed me to gain insight into their perspectives and experiences related to the phenomenon being explored. This allowed me to develop a better understanding of their needs, feelings, and opinions, which provided valuable

insight into the research topic. My supervisor was also consulted from time to time to ensure that my personal biases and views were minimal in influencing my research.

Transferability. Transferability is the extent to which a qualitative researcher or users of a qualitative research study can determine the applicability of a research design and study outcomes/findings to another research context, such as other participants, places, and times (Roller et al., 2015). Lincoln and Guba (1985) recommend that the findings of a research study may be applicable in other settings and similar contexts. The strategy incorporated in achieving this was collecting data from four different LTC homes in three different cities in Southern Alberta. As such, given the similarity in terms of the LTC homes size, provincial guidelines and staffing systems, the findings from the study may be relevant to other LTC homes in other zones within the province of Alberta and probably other provinces in the country. This is so because the same standards and guidelines will likely be in place across all provincial zones and all of Canada, meaning the study findings may hold true for these other areas. Also, to present rich data, I provided detailed and thick descriptions of each participant's experience in LTC homes during the COVID-19 pandemic. This was done by presenting and sharing each participant's words to substantiate the different themes using quotations applicable to other care settings and health zones in the province of Alberta (Liamputtong, 2013; Mayan, 2016).

CHAPTER FOUR: FINDINGS I

In this chapter, I begin by discussing and outlining the sample's demographic characteristics. I also discuss the four key themes of this research, which are: (a) Chronic understaffing, (b) Unpredictability and constant changes, and (c) Fear of risk and the unknown, and (d) Implications for mental health on HCWs. I conclude this chapter by discussing the implications on mental health on HCWs of these identified stressors, as well as summarizing the findings, answering this study's first research question.

The findings of this research study capture in detail the experiences and perceptions of HCWs' psychological stressors related to the COVID-19 pandemic while working in LTC homes. The findings illustrate the substantial and pervasive roles stressors play on HCWs in LTC homes during the COVID-19 pandemic. To capture each participant's in-depth and descriptive details, every quote is presented verbatim, intact, and unedited (Eakin & Gladstone, 2020).

Demographic Characteristics of Interviewed Participants

Data collected from all participants met all previously mentioned required criteria for sampling and recruitment strategies. Further information on sampling and recruitment strategies is provided in Chapter 3. Demographic information for all participants was collected using a questionnaire over Zoom prior to the interviews. A total of 11 female participants were interviewed. All 11 participants identified their professional designation as either Licensed Practical Nurses (LPN) (2), Registered Nurses (RN) (6), Recreation therapists (2), or Health Care Aide (HCA) (1). Three out of the six RNs transitioned from working as HCAs to becoming qualified RNs prior to this study and during the pandemic. I was able to capture their experiences both as HCAs and RNs during the pandemic. The interviewed participants' ages ranged from 23 to 52 years. Ten of the participants have a bachelor's degree and one participant has a post-

secondary diploma. Nine of the participants identified their religious views as Christian, one Catholic, and the remaining Protestant. The average number of years working as a HCW in LTC homes was approximately 11 years with an overall range of 1 to 28 years. The demographic characteristics of participants are presented in Table 1.

Table 1

Demographic Characteristics of the Research Participants.

LTC Homes	Number of Participants	Age Range	Working experience in LTC	Education	Religion	Gender	Professional designations
A	5	28-42	4-9 years	BSc degree	Christianity	Female	RN, LPN, HCA
B	3	28-37	1-3 years	BSc degree	Christianity	Female	RN
C	2	23-52	9-28 years	BSc & post secondary diploma	Christianity & Catholic	Female	Recreation therapist
D	1	23-27	3years 2 months	BSc degree	Protestant	Female	RN

What are the psychological stressors HCWs in LTC homes experienced during the COVID-19 pandemic?

During data analysis, three themes were identified to answer the research question: "What are the psychological stressors that HCWs in LTC homes experience during the COVID pandemic?" The three themes are:

1. Chronic understaffing with a focus on being *obligated and mandated to work, working longer hours, increased and demanding workload, and impacted/strained relationship between the HCWs.*
2. Unpredictability and constant change that focuses on *protocols and isolation, frequency of family members checking up on their loved ones, and residents' mental health deterioration.*
3. Fear of risking being infected and the unknown with reference to *the COVID-19 outbreaks in LTC homes, increased deaths of residents due to COVID-19, and an unsupportive management.*

Theme 1: Chronic understaffing

Obligated and mandated work, working longer hours, increased and demanding workload, and impacted/strained relationship between the HCWs.

Even before the onset of the pandemic, LTC homes have experienced significant levels of understaffing for many years. This chronic understaffing already resulted in HCWs being overworked, but with the onset of the pandemic, understaffing and mental health concerns became more distinct, as described by interviewed participants. In this research study, understaffing refers to the lower than needed numbers of all HCWs (RNs, LPNs, HCAs) and recreation staff in LTC homes. "Understaffing" was a phrase I repeatedly heard during the

interviews with each participant. Understaffing by the participants is considered stressors that impacts the work of HCWs in the homes. According to the participants in this study, over the years, lower than needed numbers of HCWs have created a certain degree of hardship and challenges for HCWs. Many have blamed understaffing problems on a number of factors including the increased workload, poor remuneration, and a host of other significant issues (Hoben et al., 2017; Moore et al., 2005; Shields and Wilkins, 2006). As explored in existing literature (Clemens et al., 2021; OANHSS, 2014), it is evident that understaffing in LTC homes has become the norm that HCWs have been forced to experience.

The findings obtained in this study highlight how this understaffing issue was an ongoing problem before the COVID-19 pandemic. Dilya, a participant from LTC home A, describes this understaffing issue and reports that understaffing prior to COVID-19 has always served as a significant stressor in her day-to-day work:

> *One of the stressors will be being short-staffed [pauses], [struggles to find the right words] like we are healthcare professionals, we are currently short-staffed, even nurses, healthcare aides, LPNs. (Dilya, LTC home A)*

The COVID-19 pandemic further exacerbated this understaffing problem, as all 11 participants consistently expressed this issue. Since the onset of COVID-19, the chronic understaffing became exacerbated by several factors. Some of these factors stem from the frequency with which HCWs phoned in sick to work, the duration of time they were required to isolate at home, and the single-site rule that prevented HCWs from working multiple sites. As Promise in LTC home B shared:

> *We didn't have enough staff time most times [um] some people chose their other jobs rather than to come back to where they used to work. So every time we were, I can't remember a time when we worked like everyone was present. We are always short-staffed working during the COVID period, and [um] it was stressful not only to ourselves, but for the residents. (Promise, LTC home B)*

The chronic lower than needed numbers of HCWs pre and during the COVID-19 pandemic across all LTC homes correspond to the discussions regarding staffing levels that have been ongoing for years in LTC homes. The COVID-19 pandemic has overwhelmingly revealed the state of poor staffing levels in LTC homes that HCWs experience on a daily basis.

The effects of consistently being understaffed during the COVID-19 pandemic resulted in some HCWs (participants) feeling morally obligated or legally mandated to work even when they experienced physical or emotional burnout. To be morally obligated in this context refers to a promise and consideration without force or legal basis to work extra hours after completing a shift as a HCW. In some cases, these workers (LPNs, RNs) were legally mandated to work when there was no staff to take over the next shift. Such legal mandates were made between the management of their place of work and their union as laid out in their collective working agreement (Bae & Brewer, 2010, Bae et al., 2012, United Nurses of Alberta, 2022). Dilya from LTC home A described what being legally mandated was like:

> *So that, that was that is one of the biggest stressors is you really don't have an off day and then you're actually kind of like obligated to go to work. So that was not good at all. (Dilya, LTC home A*)

On the other hand, some of these staff often felt morally obligated to work based on their personal beliefs and values, given the new moral territory of the COVID-19 pandemic. The HCWs' compassion for their work became clear by the instinctual tendency they described to attend to residents' needs rather than face or think about their health consequences. These individuals felt compassionate towards their residents, causing them to work overtime when staff were not available to take their place. As such, these HCWs had to work at the expense of their well-being. This is apparent in Delly's quote from LTC home D,

> *And if there's nobody to cover as an healthcare professional, as a nurse [pauses], you had the responsibilities, it's your responsibilities to stay, right? Until*

> *somebody is there to relieve you. So you can't you can't just so it's like I'm caught between helping and also thinking about myself at this point. (Delly, LTC home D)*

From all indications, the staffing shortages experienced pre-COVID-19 only worsened during the COVID-19 pandemic due to several factors, as mentioned previously. This exacerbated understaffing led to most HCWs in LTC homes describing how they became morally obligated and legally mandated to work. Though low staffing levels were a problem pre-COVID, this became worse than what these HCWs were accustomed to; the sick calls by their colleagues were higher than anything they had previously experienced. In addition to these sick calls, the COVID-19 pandemic greatly affected the staffing pool from casual to part-time workers. Many had to isolate or even choose where to work due to the single-site rule laid down by Alberta's Chief Medical Officer of Health (Alberta Health Services, 2020). Pre-COVID-19, though staffing shortage was a common phenomenon, no public health policy limited where a HCW could work, nor were they required to isolate for long days at the slightest observation of a flu-like symptom. These factors made HCWs morally obligated or legally mandated to work amidst their apparent burnout associated with understaffing. Promise expressed how this one site policy affected her:

> *We were almost under crisis, and [um] because some workers were mandated to work on one site, it was really, really stressful. (Promise, LTC home B)*

With staff morally obliged or legally mandated to work due to the staffing shortages, these HCWs soon found themselves working longer hours than usual due to these obligations. A staff member mandated to work had no choice but to work longer hours than originally scheduled. Working longer hours in this context is described as overtime work done by HCWs for a more extended than usual period. This period is usually between 12 and 16 hours in contrast to their regular 8-hours shifts. Previous research studies have established how longer working

hours by HCWs is associated with these HCWs' health status, work-related stressors, and hazards (Son et al., 2019). Other studies have also described how longer hours of work resulted in induced fatigue, stress, burnouts, lower organizational commitment, and depression in workers (Heo et al., 2012, Scott et al., 2006, Yoder, 2010). Working longer hours than usual is evident from what Tammy and Summer in LTC homes A and C expressed:

> *Hmm. [long pause] It was bad, we were short-staffed, we had to work 16 hours a, a couple of times a week, it was like, the toughest thing. (Tammy, LTC home A)*

> *It was like instead of eight hours, we're working 12-hour days to help with the people in isolation. But then when you're working 12 hours, it's pretty hard. (Summer, LTC home C)*

Aside from feeling morally obliged or legally mandated to work, another factor that made HCWs work longer hours than usual were outbreaks in a facility. The outbreaks here refer to an increase in the occurrence of COVID-19-positive symptomatic and asymptomatic residents in a LTC home. This meant that once an outbreak occurred, staff that usually work multiple units within their respective LTC homes were not permitted to do so. As a result, people working on a particular unit had to work additional shifts or longer shifts. Mercy and Chrissy from LTC home A both expressed this:

> *…because when we had an outbreak, you know, you have to cover a lot of shifts, you know, you have to cover this shift for this person. Or maybe when you are doing day shift, then there is no nurse in the evening shift, you have to stay for a double shift… (Mercy, LTC home A)*

> *The, the short staffing we suffered when we had COVID outbreaks and we had five nurses off at one time, we didn't have the availability for five nurses to be off, which meant pretty much every single day there were at least two nurses pulling double shifts. So in our facility we do eight, so that's 16 hours of shifts. (Chrissy, LTC home A)*

The data here highlights the ripple effects of staffing shortage on HCWs and how it continued to affect their workflow at their respective LTC homes. As presented here, working

long hours is linked to the central dominant theme – understaffing – that led to the obligations and mandates. In essence, being obligated and mandated automatically meant these workers had to work long hours during the COVID-19 pandemic in LTC homes.

As the pandemic progressed, the workload of HCWs in LTC homes increased. In addition to working longer hours than planned, participants described how different aspects of their work increased and became more demanding. The increased workload in this context is the additional responsibilities involving tasks and duties HCWs had to carry out. Participants described how the COVID-19 pandemic brought additional responsibilities to their daily work routine. Often in LTC homes, HCWs were tasked with a higher number of residents with various clinical needs (Alghamdi, 2016; OANHSS, 2014). Due to the infectious nature of COVID-19 and its effects on the body temperature of infected individuals, these HCWs described having to check the temperatures of their residents frequently. Other workload issues included staff doing non-clinical and out-of-scope tasks. Chrissy in LTC home A expresses such workload concept as follows:

> *Nurses, myself, I'm doing the work of an R.N, I'm doing the work of a unit clerk, I'm sometimes doing [ah] managerial work. [Um] [places left hand to her chest] One person to 30 patients is crazy… Specifically during COVID, but at one point [ah] in my 30-patient workload, I had eight patients who were all tube feed patients who were all at different times tube feed patients that I was solely responsible for, that I had to manage all of their care. At any given point, I can have 30 complex patients and two or three or more of them could be palliative patients requiring hourly medication… So for me personally as an RN and I have had more, I have had more tasks to do because we are doing, checking on the patients, of their daily temperatures and if they do spike of fever, then we have to check them twice a day… I mean, our workload as a nurse specifically doing daily temperatures on all the patients through the whole COVID has been a pain in the butt. I mean, we've gotten so used to it now, but a pain. (Chrissy, LTC home A)*

As described by participants in the study, the increased types of tasks related to COVID-19 affected the time they needed to attend to a resident's needs. Further complicating matters, a staff member meant to attend to the workload of six residents might find that she had to attend to the workload of eight residents. This increased workload shortened the time ratio a staff member had to attend to a resident, resulting in decreased quality of care for these residents. Additionally, HCWs had to deal with more routines involving safety procedures, which meant that they often had to change Personal Protective Equipment (PPE) every time they entered and exited residents' rooms. Delly from LTC D expressed the effects of this increased amount of work, and the demands associated with it, as well as the many challenges related to time ratio and the number of residents per staff:

> *So, [um] let's say the time ratio that you had with a resident – maybe 15 minutes to talk to them – we literally cut in half right now or one third like five minutes, and that five minutes is not even easy because then you have to go to another resident's room, take off your PPE, wear another one [sighs] [pauses]. I think it just took a toll on, on us, because like it just felt like we were going through one crisis or another… And it feels like the work of two people as turned to the work of one person [pauses], and you have to do it because number one it's your work, number two you just enjoy taking care of the people that you work for, right? So that was one of the stressors. (Delly, LTC home D)*

Simbi, a staff in LTC home B, also expressed how the increased amount of work, and the demands of such workload due to being understaffed impacted her. Here, Simbi described how she spent more time carrying out a task due to the increased and demanding workload, as well as having to put up with staffing shortage. HCWs spending extra time and expending more energy carrying out the task is different from having to spend quality time attending to a resident holistically. This concept is evident in Simbi's narrative of her experience:

> *You are having to deal with being extra careful, especially dealing with people who are positive with COVID. Then. See? So, facing all that you are dealing with on a normal day, six clients. Then you are now short-staffed then you have to deal*

> *with eight clients. So number one, the job that you are supposed to do in one hour, one hour – the fact that you are having to do extra things you already doing it in 90 minutes. Then you are now short-staffed. That means you probably do it for 2 hours for 2hours 15minutes. It is mentally draining. (Simbi, LTC home B)*

It is evident from what these participants are expressing, that COVID-19 brought many stressors in different forms. It is pertinent to understand how the issue of understaffing greatly translates into other stressors that may affect how frontline HCWs work. Understaffing in LTC homes during the pandemic added significantly to the workload of these HCWs, and participants expressed concerns about the quality of care that residents should have. These workers found themselves working more than they should, attending to non-clinical tasks, and working out of scope. Clinically, the presentation of COVID-19 ensured that these HCWs had to do extra work; consistently monitoring their residents for any changes in their health status.

The lower than needed numbers of HCWs experienced by these frontline workers had a way of impacting and straining their relationships. Understaffing, coupled with an obligation (or mandate) to work in a stressful state of mind, long hours of work, and the increased workload they had to contend with, made these HCWs start having strained relationships at their workplace. As described by participants, these tensed and strained relationships amongst HCWs led to frustrations, supressed anger, and the eventual emotional outbursts in the workplace. This created conflicts among frontline HCWs, which was an implication of the compounding of the previously mentioned stressors that these workers had to experience. This is evident in Chrissy's narrative from LTC home A:

> *And so everyone was so frustrated and so upset. And then you get frustrated, upset and then everyone's bickering with each other because none of us don't know anywhere else to have an outlet to ease stress up… But you know, then you're dealing with those types of internal conflicts that aren't even COVID related, they're just work internal conflicts and dramas and stressors because of*

> *course, COVID happened, but then still daily, daily tasks of the residents had to happen and daily trying to get in touch with doctors. (Chrissy, LTC home A)*

This tense relationship between HCWs also made working during their shift difficult, as some had no place to vent their negative feelings about the current situation. As a result, workplace hostility became more challenging, and led to staff members having low morale. Such attitudes went a long way in affecting some staff working together and presenting as an added stressor with which they had to deal. This is indicated in the narrative of Hailey from LTC home A:

> *[Um], Yes, I will say that our co-workers sometime, you know, sometime your co-worker would be working with you and you know, and make you – make everything difficult. If you, if you have somebody that you can work with, in peace and, and not with the stress, doesn't manipulate you or it doesn't [um] – actually what do you call this one? Like, I don't know what to say, but yeah, [um] – you would feel, you know, you will feel good and in peace and you get your job done without stress, without anything. It will be just like, yeah. Willing to go to work every single day, you know?...Well, if you find yourself that you stressed all the time with people that you work with, you face them every single day. So, what you can do. Or maybe you can sometimes talk to them, maybe, why you are doing that to me, something like that, right?... you know sometimes even the person that you worked with, you sometime, maybe they [um], you know they don't like you, or, you know, like many things. (Hailey, LTC home A)*

In summary, the exacerbated lower than needed numbers of HCWs significantly led to building blocks for other stressors that HCWs experienced during the COVID-19 pandemic in a LTC home. Being morally or legally obligated to work were also observed to be stressors that led to working longer hours than they should have. When these workers found themselves working such hours, it became apparent that their workload had also increased, thereby impacting, and straining the work-related relationships they shared.

Theme 2: Unpredictability and constant change

Protocols and isolation, frequency of family members checking on their loved ones, and residents' mental health deterioration.

The COVID-19 pandemic created significant levels of unpredictability and constant change in multiple areas within the healthcare system. In this context, unpredictability and constant change refer to the sudden recurring changes in protocols, policies, and regulations at any given point in time during the COVID-19 pandemic. Public health regulations and policies consistently changed protocols regarding isolations and other restrictions that affected HCWs, residents, and their family members (Alberta Health Services, 2020). Most changes in the recurring protocols included changes in the point of care risk assessment (PCRA). In this context, PCRA refers to the routine practice requiring the selection of appropriate actions and additional Personal Protective Equipment (PPE) to minimize the risk of exposure to an infectious disease. Pre-COVID-19, trained HCWs usually had to conduct a PCRA before entering a resident's room with respiratory or gastrointestinal symptoms that are infectious in nature only (Alberta Health Services, 2020). However, with the advent of the COVID-19 pandemic, changes to the protocol regarding this routine became a recurring thing that served as a stressor, as these HCWs had to undergo these protocols with every resident. Frequent changes caused by the pandemic led to several stressors that affected HCWs in LTC homes.

During the COVID-19 pandemic, HCWs in this study were required to utilize the PCRA for *all* of their residents. These HCWs often dealt with suspected cases of COVID-19 disease, and as a result, had to conduct a PCRA before any interactions with their residents. In addition to this PCRA routine, another change in protocols and regulations centred on HCWs having to be screened daily before being allowed to work. This screening process involved HCWs filling out

daily COVID-19 screening questions electronically to determine if they were fit for work within an hour or two before coming into work. Coupled with that, HCWs also had to be screened upon entry to their facilities. Temperature checks and questions about any signs and symptoms, contact with symptomatic and COVID positive individuals, or recent travels occurred daily before being allowed to work. This was never the case for the HCWs pre-COVD-19 and as such, these changes became a workplace stressor for them, as they had to worry about the frequent steps to undergo before caring for their residents. An example of the PCRA is expressed by Delly and Simbi from LTC homes D and B:

> *And because they had [pauses] we have so many wings, about three or four wings there is [pauses], it was really, really hard for [pauses] for people to work because you have to wear PPE all the time and then these residents don't have to wear PPE a day, and they are locked in their rooms and they are thinking [pauses], like what's going on? Why are these people actually like dressing up this way? (Delly, LTC Home D)*

> *…you know having to gown to go and give people medication in their room [ah!] oh my god, it is tough… (Simbi, LTC home B)*

This unpredictability and constant change were noted in this study to affect protocols and isolation/restrictions during the COVID-19 pandemic. Protocols and isolation/restrictions were the guidelines and instructions laid down by the Government of Alberta's Health Services (AHS). These guidelines were specific and unique to the COVID-19 pandemic to curb the further spread of the disease. Such changes served as a stressor in that staff started feeling stressed and uncertain about these constant changes. This expressed uncertainty was due to the protocols and policies that were constantly evolving, meaning that HCWs had to constantly adapt to new changes in order to ensure that they were following the right protocols. An example of this is found in the descriptions of Dilya and Chrissy in LTC home A:

> *[Um] I would say just a lot of restrictions and a lot of changes [pauses]. A lot [um] [pauses] we've had a lot of [um], I would say, inspectors that come to check*

> *and make sure that we are doing the right thing. I think they used to come in every Tuesday, [um] yeah [sniffs]. So just a lot of restrictions and changes and having to keep up with the [pauses] what the Alberta Health is saying [pauses] in terms of the new restrictions because they can change, they would change every – sometimes week by week. (Dilya, LTC home A)*

> *…all of a sudden all these new daily changes and you just get comfortable and understand the rules from yesterday. And all of a sudden they've changed again today because no one can make up their mind. Yesterday they could be pink, and now tomorrow they're purple. You know, no one can make up their mind." (Chrissy, LTC home A)*

Another example of this phenomenon posing as a stressor is seen in what Adele in LTC home B had to say. For her, these recurring changes became tiring as she explained below:

> *Now you're going to work and dealing with those things that existed before COVID, and on top of the things that are existing post-COVID and as time went on, [um] getting used to all the protocols, the changes, the rules, the regulations…" (Adele, LTC home B)*

Unpredictability and constant changes that led to isolations and restrictions to some HCWs served as a blessing. One participant expressed that having residents in isolation and placing restrictions on family members was a blessing to other residents in the facility. Such residents had advanced cognitive disorders that required low stimuli and quiet surroundings. This meant that the isolation and restrictions provided a safe haven for these of residents from various noise and distractions, which enabled them to cope better with their conditions. An example is found in Chrissy from LTC home A's narrative below:

> *We found patients who were overstimulated with dementia by people just walking around because that facility is a 120 [um] bed facility with four different units, so 30 patients per unit and I work on one of them. So having the constant flow [gesticulates with left hand] of people that dementia patients don't recognize, it's busy. Its buzzing phone calls going overhead, having that stop. I, I found a lot of behaviours decreased and the whole environment became calmer… Patients who would get visits from their family members and they didn't recognize them anymore, who would just get wound up and then the family members would leave and then we'd have to deal and hand out medications to calm them or something*

> *like, that stopped because they weren't being bothered. And those that were set, were so far gone cognitively, who didn't recognize those, didn't notice any difference. They just were calmer, because the activity in the building was lessened, those that were still were cognitively aware, understood what was happening, and we made a great effort to make sure that those family members got to have visits with them through the window or phone calls or in a different way so they could maintain some type of communication. (Chrissy, LTC home A)*

Interviews with HCWs revealed that, in addition to the frequent changes in protocols and restrictions, these HCWs noted that the family members of residents had their own distinct experiences of these changes. These HCWs observed how family members had to adjust to the constant changes in the rules and regulations that were laid down. The interviewed participants described how these recurring changes increased the frequency that family members had to check on their loved ones. Participants described how the little or no access to visit their loved ones made family members contact their LTC homes frequently, which became an added stressor to them (HCWs). An example of such a challenge with the family members is described here by Chrissy in LTC care home A:

> *And so having the lockdown happen for the first, what was it, 10 months, 11 months was really nice, but it changed the way we started to see family members when it started getting to the later months, and some family members were very impatient. We lost a lot of patience and a little bit of. [Long pause] How would the right word is? We got more frustrated with certain family members who almost forgot that we were caring for 29 of other family patients and who felt like their loved one was the only loved one, and because they couldn't come in and deal with it, then we needed to do all these things. I had one family member who was insistent upon us setting up this laptop that he had provided for them, the families to do these Zoom calls, and they had set schedule times. And what, like some days, we couldn't get to it. And he would call the nursing desk every two minutes until someone stopped what they were doing to go and turn on this laptop, when we said, you just need to give us a minute or I'm sorry, but this morning isn't going to work, you're just going to have to wait for your afternoon phone call. And they didn't understand anymore. And that's when we started to be like, OK, COVID is happening [raises voice tone, and gesticulates with left hand] I have something slightly more pressing, I've had this phone call for you every*

> *day prior to, you need to give me a little bit of slack here because we're also all dealing with it. So, you know, we lost a little bit of that. And then when family members were starting to come back in at the beginning, pre [um] vaccinations, [um] you found a lot of staff and a lot of us, were almost nervous to have family back in because we didn't want to, because we hadn't had an outbreak before. (Chrissy, LTC home A)*

As observed in this data, these frequent calls were borne out of fear and worries from family members since they had no other means of contacting their relatives. Tammy in the LTC care home A also expressed this:

> *And with family phone calls, being there, they're worried about their, their loved ones, there it was, it was tough, like it wasn't easy. (Tammy, LTC home A)*

With the frequent inquiries by family members about their relatives, HCWs also experienced other added stressors. Most staff members became stressed to the point of irritability and encountered technical challenges when trying to utilize the virtual platform for family members. These HCWs viewed family members' requests as demanding, presenting an added stressor they had to face. Two participants from this study expressed this:

> *Sometimes you can face, [um] you know, family can, can, can get you, you know, get on your nerves sometimes families, you know… (Hailey, LTC home A)*

> *I did run into problems with [um] a lot of seniors have senior children, so connecting with them with Zoom or Skype was a challenge. (Sally, LTC home C)*

The data from participants indicate how the theme *unpredictability and constant changes* served as added stressors to HCWs, and residents' family members. The results of these recurring protocols and uncertainty led to the mental health deterioration of some residents in these LTC homes. Some participants chronicled how residents' mental health deteriorated due to prolonged confinement in their rooms and the limited social stimulation they experienced. In this context, mental health deterioration refers to changes or declines in residents' mental health since the onset of the COVID-19 pandemic. Such deterioration in the mental health of these residents also presented as an added stressor that HCWs had to experience. The COVID-19 pandemic had

a varied impact on some residents, with some experiencing an improvement in their psychological state due to the enforced restrictions, while others were adversely affected, manifesting in behaviours that had to be managed by HCWs. Upon closer examination, interviewed HCWs noted that the unpredictable changes in policies, protocols, and restrictions, which led to the isolation of some residents, caused these participants to experience a form of loneliness that manifested as depression. Examples of this phenomenon are what Adele from LTC home B and Summer from LTC home C described:

> *...you know, or dealing with extreme behaviours from [um] residents like psychological, psychological challenges that are like based on their disease process, which is expected. (Adele, LTC home B)*

> *I think [um] one of the biggest thing was the residents being lonely and more depressed. Like we obviously know working in health care that residents were depressed before COVID and losing their independence. (Summer, LTC home C)*

Due to unpredictability, constant changes, restrictions, and isolation policies, participants observed and talked about how some residents felt isolated and lonely in their rooms with no social interactions with other residents. Interviewed participants chronicled how this isolation affected the residents' daily routine, such as having meals and coffee in the dining area with other residents. It was also evident during this research study that HCWs, from how they described this phenomenon about their residents, were themselves stressed by witnessing such occurrences in their residents. Data from this study also indicates how some residents, while on their deathbeds, had no family member to hold their hands during their last moments on earth. Upon realizing that their family members were restricted from visiting and being isolated and lonely, these residents became hopeless and, as such, often died in the arms of these HCWs with no loved ones present. Some examples of this are seen in what some participants had to say:

> *Yes, but I feel like there was also some that died of loneliness, which I truly believe is a thing because, [um] because you know, once they couldn't see their*

> *family, they just kind of gave up…. So now, especially at the beginning, it was like they aren't allowed to go in the community anymore. They're not allowed to co-mingle with their, the entire home [um] and then their families, like their families, weren't allowed to come in either. (Summer, LTC home C)*
>
> *And I am like, so they felt caged at the same time, and it's so, it's so hard because you can see them actually being so sad. Their families can't come visit them, they can't really do anything even to eat, they have to like, it's like takeout per se quote-unquote takeout food because you can't dine-in, in dining area. (Delly, LTC home D)*

In summary, the theme outlined in this section highlighted the role changes in protocols and regulations during an infectious disease outbreak could impact frontline HCWs, the residents, and their families. Though these changes were needed and meant to protect the HCWs and their residents, participants in this study saw them as stressors. In addition to their increased and demanding workload, HCWs had to pay close attention to changes in regulations and protocols. On the part of the family members of residents, such constant changes also meant that a policy or protocol they were accustomed to previously may have changed, leading to passive aggression towards HCWs taking care of their loved ones. As mentioned earlier in this section, these changes were responsible for the frequency with which family members consistently called the LTC homes of their loved ones, which was another stressor for HCWs. Finally, the implication of this theme highlights the importance of considering the effects of changes, unpredictability, and restrictions in the LTC home during a pandemic. It also emphasizes the need to understand the impact these changes have on both these HCWs and the residents, to ensure that the best possible care is given to both parties. Therefore, unpredictability and constant changes, as seen in the data, were major stressors to HCWs that led to other challenges, which will be discussed later in this chapter.

Theme 3: Fear of risking being infected and the unknown

The COVID-19 outbreaks in LTC homes, increased deaths of residents due to COVID-19, and an unsupportive management.

The findings from this research study indicate that since the onset of the COVID-19 pandemic, some frontline HCWs have experienced fear of risking being infected and the unknown due to several factors. This theme encapsulates a fear of the potential risk of exposure to the COVID-19 disease, and the fear of getting sick with it, along with the unknown effects that come with such exposure, and not knowing what to expect at their places of work, finances, and health in general during the pandemic. During data analysis, findings from the data indicated that outbreaks in some LTC homes, increased number of deaths due to COVID-19 and an unsupportive management all presented as stressors.

Some participants expressed how they experienced fear due to being exposed to the virus when there was no vaccine and how they had to isolate themselves from their loved ones at home. The fear of infecting their loved ones and the unknown health effects was evident in what some participants presented. In this context, the fear of the unknown is a tendency for an individual to be afraid when an information on a certain phenomenon is unavailable. Such fear of the unknown is stated by Simbi as:

> *When I got exposed to COVID, so I had to stay at home and waited for my COVID test together with my husband and son. I have to stay home together with my husband since my husband is a close contact with me. I feared for my son and husband because of my nature of my work that always expose me. Aside from this, I also feared for my husband who has asthma. (Simbi, LTC home B)*

This participant feared her husband and son risked being infected by the virus, thereby creating an unknown for her family. Simbi became fearful when she realized that her husband's underlying medical respiratory condition could worsen if infected.

Another stressor related to the COVID-19 pandemic revolves around the outbreaks in these homes and the risks they bring. These soon became a cause of concern for some participants as there were many fears related to the risk of being infected and not knowing what each working day would be like. From what participants said, it appeared that these frontline HCWs became stressed and had fears that they risked working during unknown outbreaks. Despite having access to PPEs and the use of the PCRA protocols to protect them when attending to isolated residents, these HCWs still exhibited some form of fear. From what the HCWs implied, this fear emanated as a result of them not knowing the consequences of attending to an isolated resident even when protected. Some explained how it was tough on them and how they had to be overly cautious while attending to and around residents. This is denoted in what some participants from LTC homes A and B shared:

> *It, It was tough days or time because, you know. There were a lot of people they, they were sick, and sometimes we have what we call outbreak? Yeah, it was it was tough, tough time. (Hailey, LTC home A)*

> *…We were actually on outbreak, and everybody was like you know, myself I was grumbling… (Simbi, LTC home B)*

> *…I know this because just recently at my facility, a lot of my residents had [err] the COVID. We were on outbreak continuously, we've been on outbreak continuously, I think we're going in to two months now. (Adele, LTC home B)*

Other participants described how they experienced a higher-than-average number of deaths due to COVID-19 in a brief time. Most had never experienced such a high number of deaths related to a specific disease. As such, this higher-than-average number of deaths served as stressors that translated into the fear of being infected and the unknown. It is evident in the narrative by Adele in LTC home B:

> *This fear that all these mysterious diseases are just going to come in, clear up the world and people are going to die… like when COVID just started, the facility that I used to work at [pauses] ten residents died in a week. (Adele, LTC home B)*

It was one thing for these HCWs to experience the fears of risk and the unknown; it was another to observe them talk about such fears. During data collection, I observed that some participants might be psychologically distressed by watching their visual presentations and expressions. Some participants were teary, used a paper towel to dry their teary eyes and shaking their heads. For individuals that did not have their cameras on, such observable cues were noticeable in the tone and pitch (shaky voice) of their voices and the long pauses mid-sentence. All these are related to the fear of risking being infected and the unknown associated with the higher-than-usual number of deaths due to the COVID-19 pandemic as observed in the non-verbal attitudes of the participants during interviews. Examples of this are presented in what one participant from LTC home A had to say:

> *[Um] so the home that I currently work, work in has been through a lot. [Um] When [pauses] COVID first started, they got the first [um] COVID cases and they had like a number of deaths there. And because they had [pauses], we have so many wings, about three or four wings there is [pauses], it was really, really hard for [pauses] for people to work… (Dilya, LTC home A)*

Another interviewed participant-Mercy described the type and form of fear that she experienced during the pandemic. Mercy from LTC home A described this as follows:

> *I could still see even in our facility, I could still see like even after the, the third jab for the residents, like I have, I already had residents who just passed away even after isolation. So, you know, and I'm like, Oh, three jabs already? Like they were done with 10 days isolation and somebody is dead, you know, like so I don't know. Honestly with me, I am not 100% to that vaccine? (Mercy, LTC home A)*

From the quote above, Mercy's experience of seeing residents of her facility pass away even after receiving all three doses of the vaccine and completing a ten-day isolation period left her feeling uncertain and fearful about the efficacy of the vaccine and its safety.

The increased number of deaths that occurred due to the COVID-19 pandemic indicates that HCWs experienced increased fears of potentially being infected and dying from the COVID-19 disease and facing the unknown on a daily basis. These fears and uncertainty regarding what to expect became another form of stress that they had to manage. Nevertheless, this added stressor was not the only thing they had to face. Workers also had to worry about the respective leadership of their workplace. They feared not having the support they needed or a show of appreciation from their management. Some insufficient support they experienced revolved around the fear of not being approved for their vacation during the pandemic. An example of this is evident in what Mercy from LTC home A expressed:

> *… Like me, I was supposed to go home for vacation, but it had to be cancelled so that I can stay and work. (Mercy, LTC home A)*

Other participants reported a lack of clarity from the leadership of their place of work regarding how to implement the public health revolving protocols and policies during the pandemic. In essence, the pandemic may have created a great deal of uncertainty and confusion for many LTC settings, and one common issue reported by participants is the lack of clarity from their leadership regarding how to implement the public health revolving protocols and policies. According to the participants in this study, this lack of clarity created a sense of unease, fear, and insecurity among employees, which also led to a breakdown in communication and trust between management and staff. Additionally, without clear guidance from the top, it becomes difficult for these HCWs to follow the necessary safety protocols and procedures, which could lead to a possible increased risk of non-compliance. It is therefore imperative for employers to provide clear and consistent guidance to their staff on how to implement the public health protocols and policies during the pandemic. Such provision will help alleviate these HCWs' fears. Chrissy describes her experience relation to this as:

> *And then I turned to my management, who is like, I don't know what's happening, this is thing like, this is all crazy and everyone's just confused, and we felt like we were running around ducks on our heads. (Chrissy, LTC home A)*

Some of these participants experienced the fear of failing their residents and these resident's family members who looked up to them for direction when their leadership were not forthcoming. Some of the support needed included effective communication on implementation plans following new protocols, being empathetic and appreciative in little ways, acknowledging and understanding what the frontline HCWs were going through, and supporting their plans for approving their vacation requests. Expressing this phenomenon is Chrissy from LTC home A who felt that there was lots of confusion and a lack of communication from leadership to the frontline HCWs. This participant said:

> *And then you feel I had a really bad sense of feeling like I was failing my patients for a while and failing my family members because I didn't know what was happening…But it was very, very difficult for quite a long time and background to our director of nursing during COVID, she has now left, been terminated, was not the most supportive person. And so I think to not have even support from upper management as well was an extra stressor because she wasn't providing that support to us that we really needed and look to that leadership.*

The findings of this research study as described by interviewed participants indicate that the staff of these LTC homes required specific support from the leadership of their workplace and often did not receive it. Furthermore, the HCWs' fear and anxiety about the lack of support and appreciation from their managers, especially in regard to vacation requests during the pandemic, reflects a broader concern about the lack of recognition and resources available to them. This fear speaks to a need for greater recognition of their efforts and more meaningful support from their employers. Though pre-COVID pandemic, the leadership of these LTC homes existed and did their jobs as they could, frontline HCWs in this research study felt unsupported when the global pandemic happened. Although, in this study participants did not mention if they

felt unsupported by the management of their workplace pre-COVID-19. The findings from this research study indicate that due to the extra stressors these HCWs were experiencing, workers felt the leadership could have put in the extra support they needed to wade through the many challenges they experienced during the pandemic. Some felt that their management ignored the many stressors that they experienced. As such, their management became another source of stress during the pandemic of COVID-19.

Mental health conditions that emerged in HCWs during the COVID-19 pandemic

Living through the pandemic on the frontline.

During my data analysis, it became apparent that the stressors experienced by HCWs led to several perceived mental health challenges. These challenges made living through the pandemic for these frontline HCWs burdensome. In this context, mental health challenges are conditions related to identified workplace stressors that influence or affect a HCWs' mood and emotions. Many of these participants stated how some stressors identified while working impacted their mental health. Figure 2 shows the relationships between these stressors and the implication on the mental health of these HCWs. This figure below describes how my understanding of the phenomenon being investigated, which was based on the participants' narrative of how the identified stressors had an impact on their mental health.

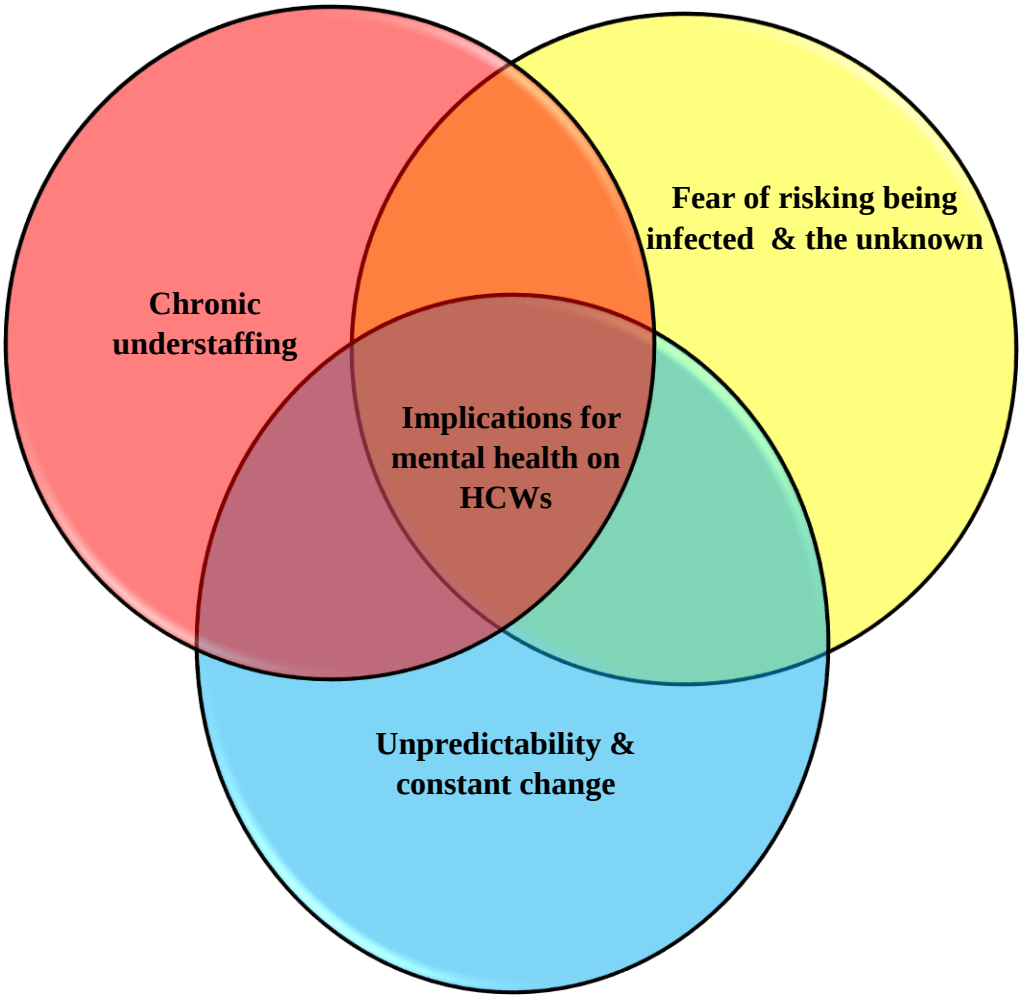
The majority of the participants expressed how chronic understaffing relating to increased and demanding workload, obligatory and mandatory work, and strained relationships among HCWs were stressors that affected their mental health. Ten participants claimed that prior to the COVID-19 pandemic, they did not experience significant mental health challenges in contrast to what they experienced during the COVID-19 pandemic. This is evident in what the following participants had to say about their mental health pre-COVID-19:

OK, mental health pre-COVID, I think was relatively good. I think I, I've suffered from normal amounts of anxiety and stress in any day life like everybody else. (Chrissy, LTC home A)

Okay. I would say [um] before that, my mental health was OK [pauses]. You know, everything was [pauses], no changes. You know, it was just regular. You go in, you know what to expect and then you go home. [Um] There was no issues at all. It was just [longer pauses]. I wouldn't say I was having any issues with my mental health. [sniffs] Yeah, I would say I was OK with working there. I was comfortable, not it's not stressful to me working there, so I really enjoyed working there. So I can't say I had any mental problems with that. (Dilya, LTC home A)

Figure 2

Relationship between workplace stressors and effects on HCWs' mental health



Although these 10 participants may have reported low levels of mental health challenges pre-COVID-19, one participant reported pre-existing anxiety before COVID pandemic. This participant reported that she was clinically diagnosed with anxiety before the advent of COVID-19. Simbi from LTC home B described this as follows:

> *Oh yes, oh yes. I'm going to tell you for me, you know, because this is a confidential conversation, I'm going to tell you, I have anxiety, like I was diagnosed of anxiety at some point in my life. (Simbi, LTC home B)*

One participant acknowledged that working in a LTC home prior to COVID-19 was already a stressful environment but working during the COVID-19 pandemic was a different experience. This HCW noticed the effect of chronic understaffing on her mental health and overall well-being. This participant reported how the stress she experienced pre-COVID-19 was nothing compared to during COVID-19 while working in a LTC home. This concept is described in what Promise from LTC home B had to say:

> *And [um] I could tell the difference, like I thought then that we were stressed, I thought, I thought that, you know, it was a high stress environment then, but when I came back, and probably that was why [um] I was really excited about going back and thinking, yeah let me try this out. So when I came back, I found that things had changed. But then when I got long-term care during COVID, it was really, really stressful. It was super stressful because we were constantly understaffed. Constantly understaffed… (Promise, LTC home B)*

HCWs felt they had no option but to live through the pandemic on the frontline while working in LTC homes. While many workers in different professions switched from working in person to virtual means, these HCWs had to be physically present. While working in LTC homes prior to COVID-19, nothing prepared theses HCWs for what they were about to experience during the pandemic. As the low staffing levels progressed, leading to chronic understaffing, so did the stressors they experienced worsen, and they reported these led to significant and exacerbated mental health challenges. One of the first realities of living through the pandemic on

the frontline with chronic understaffing was the emotional stress, mental exhaustion, and burnout they encountered. Many of them described how a combination of chronic understaffing, unpredictability, and constant changes to the fear of risk and the unknown led to most of the mental health challenges they experienced. Many workers got to the point of being so emotionally stressed, mentally exhausted, and burned out that they had to take time off work. This phenomenon is evident in this quote from Delly in LTC home D:

> *And because I was stressed out, like it took a toll on my body that I had to stay home for two weeks, I did have COVID, but had to stay home for two weeks and just like really think of what to do again, because mentally I was just like, I can't do this anymore. Like short-staffed all the time and the issue of being burnt out like I was burnt out, I was burnt out. I would say that for a fact. (Delly, LTC home D)*

Working in such a high-level stressful environment during such a time stretched these HCWs so thin that they soon became very emotional, resulting in mood changes. Another participant expressed how the unpredictability and constant change negatively impacted her mental health. This participant was so stressed and became very emotional; she indicated that there were days she would cry so much due to being overwhelmed by the stressors she faced at work. Chrissy from LTC home A expressed this exacerbated mental health challenge as:

> *The stress level at work went from, you know, all of a sudden all these new daily changes and you just get comfortable and understand the rules from yesterday. So it went, it, it was a mixed bag of emotions, and some days you kind of just had the whole rollercoaster of them you wanted to cry because you were just so overwhelmed with all the changes, and you didn't know which way was up. The staffing and burnout in long term care is huge. The burnout was significant, but you couldn't burn out because you didn't have anyone to replace you. I think the key things are COVID has definitely caused stress and burnout, staffs, especially, I think, staffing, short staffing ratios pre-COVID and then COVID putting on top of it has sounded alarms desperately all across any long-term care facility you have. (Chrissy, LTC home A)*

The chronic understaffing and increased/demanding workloads that these HCWs experienced negatively affected their mental health by creating self-doubts about their capabilities. These stressors mentally drained workers, who began to experience workplace burnout. Three of these participants described such experience:

> *You also worked so much that it's like, is this affecting me or is it not affecting me? Right? And then that's when you hit burnout, for sure. (Summer, LTC home C)*

> *Then you are now short-staffed that means you probably do it for 2 hours for 2 hours 15 minutes. It is mentally draining. (Simbi, LTC home B)*

> *Yes [pauses]. Yes [pauses]. Yes, a lot of workloads added to burnout, and I wasn't [pauses] I was so mentally drained, but at the same time, you just cannot leave work right, because you have so many people to care for… and just like really think of what to do again, because mentally I was just like, I can't do this anymore. (Delly, LTC home D)*

Although, some of these workers were experiencing emotional stress, mental exhaustion, and burnout, others had to be on the frontline while dealing with anxiety and panic attacks. The anxiety and panic attacks were once again related to the stressors they faced daily at their workplace. Six of the 11 interviewed participants reported having anxiety about working in a LTC home during the pandemic. Two participants said they experienced panic attacks while working during the COVID-19 pandemic. Tammy expressed how the fear and anxiety of seeing her colleagues affected by viral disease impacted her mentally:

> *[Um] anxious, I was anxious, worried and not sure about, about where the world is going. What we're getting in, what is the vaccine and stuff like that?[Long pause] [um] Well, seeing my co-workers like getting sick and not being able to be there, and I was scared of everything else, I had to go and help them so.[long pause]. Yeah... [Long pause] [Um] It kind of took away all the worries that I had and the panic, and an anxiety. (Tammy, LTC home A)*

Other participants, such as Mercy and Dilya, expressed increased fear and anxiety while working. This psychological stressor was noted to be directly related to the possibility of contracting or spreading COVID-19. This is evident in what some participants described:

> *[Pauses] Like for me, in 2020, when COVID was actually at the peak you know, it was still new at that time, anxiety was kicking in when you see all these media. Then you are told there is one person with COVID in your facility, you know, you get really scared and you're like, Oh my God, it's here. Then they did some swabs and I came positive and I was like, Oh my God. So it was really bad for me also … Oh, [sighs] [long pause] let's see. Like that was really hard, [long pause] in terms of work. [Long pause] Yeah. I would say that anxiety also that I had a lot of them, anxiety that I would work, simply thinking going to work and you know that people are positive there, you know? You know, like you don't know what you're getting into. (Mercy, LTC home A)*

> *"Yes, that kind of affected [pauses]. I would say my mental health in that when I'm home, I'm a bit anxious, hoping that I will not receive a call. [Um] though since COVID, I would say my mental health has just been [pauses], it's maybe a bit more anxious because when you go to work, you know there's more expectations in terms of maybe more patients are on isolation. (Dilya, LTC home A)*

Simbi expressed to me during the interview in this research study how she experienced greater fear and anxiety at work than she previously experienced years prior to the pandemic. She stated that she had been clinically diagnosed with anxiety before the advent of COVID-19. She expressed how working in a LTC home during the COVID-19 pandemic exacerbated her anxiety. She also stated she had once previously experienced a panic attack episode unrelated to her work in 2015. However, she stated that since the onset of COVID-19 while working in a LTC home, she experienced two episodes of panic attacks in one year during the COVID-19 pandemic.

> *…I'm about to tell you something personal now, even though at that point I did not acknowledge but later I had to acknowledge it. Prior to now, all my life, I've ever had one panic on anxiety, panic attacks, and that was back in 2015. Do you know that within the last one year, I've had two episodes? [Long pause] Yes. So it's crazy that all my life I've only had one episode, and within a space of one year*

> *I had two episodes. And even though at that point, I didn't acknowledge the fact that it was because of all the stress from work and everything. I never figured out that that was it. As a matter of fact, the first one I had, I was in the bathroom, I was actually thinking of how tired of frustrated I was from my preceptorship and working, and, you know, like the fact that it was like, Oh my god, tomorrow I'm going back in…, I mean, you know, and I don't know, then I was thinking about, if I don't do this, I have to do this for my family because I have to, you know? And from nowhere, I started hyperventilating and I was in the shower and my husband could hear the way I was breathing in the room, so you can you can imagine how loud I was [demonstrates and imitate a person hyperventilating], and that was it. (Simbi, LTC home B)*

It is pertinent to understand the roles that workplace stressors these HCWs experienced and how such stressors translated into these mental health challenges. These workers had to live through the pandemic with some form of mental health challenge and had no choice but to find ways of coping with them. While some of these HCWs reported being emotionally stressed, exhausted, burned out, and having anxiety/panic attacks, others experienced sadness and loneliness that resulted in depression. These participants expressed that the sadness and loneliness related to depression were due to feeling isolated during the pandemic with no social interactions. An example of this concept is noted by the narratives of Delly and Chrissy from LTC homes D and A:

> *And I just feel like there was nobody to talk to, because I was just like on my own… But other than that, it just felt like I got to work being sad, come back home being sad. (Delly, LTC home D)*

> *So I went from being a very socially outgoing person to being by myself alone, luckily with at least my dog. So at least I wasn't completely alone. [Um] And I thought I got sad. I got very hurt by some friends who didn't, I know, didn't mean to do it on purpose... I mean, everyone's sad every once in a while, but this was like a different type of sad… And then you were all sad and you felt like you were, you just didn't know what you wanted to do. (Chrissy, LTC home A)*

In this study, participants ascribed their mental health struggles to the workplace stressors they had experienced during the pandemic. Chrissy and Mercy from LTC home A also expressed how loneliness and sadness resulted in the depression they experienced:

> *I actually started having periods of some depressive episodes, especially at the very beginning of COVID, when all of a sudden we were socially isolated… And, you know, one gets a little depressed and I'd never been depressed or sad, really. (Chrissy, LTC home A)*

> *Yes I was depressed if I may say. [Long pause] [Sighs] yeah, like with the stressors now, [pauses], I will just say the same thing also, the problems were short-staffed you know, those are the things that will cause all these depressions. I'll say I was depressed to start with. [Um] [pauses] Like for me, in 2020, when COVID was actually at the peak you know, it was still new at that time… For, you know, and with me, I'll say I was depressed because I don't have family in Canada… I don't know. I think I was just depressed. But anyway. (Mercy, LTC home A)*

In conclusion, this chapter answered the research question on the psychological stressors HCWs in LTC homes experienced during the COVID-19 pandemic and how they affected the HCW's mental health. Findings from this study indicated that though these workers experienced some workplace stressors prior to COVID-19, these stressors became significantly exacerbated during the pandemic. As such, HCWs started feeling the intensity of such workplace stressors, which led to new or exacerbation of existing mental health challenges that defined how they lived through the pandemic on the frontline. To most of these workers, the stressors they experienced readily translated into psychological challenges they had to manage during the pandemic as frontline workers. With the crumbling Canadian healthcare system, these HCWs pre and during COVID-19 consistently continued to provide care despite the mental health challenges they experience. Some felt unnoticed, underappreciated, underpaid, lonely, mentally exhausted, and depressed. Amid the global chaos and pandemic, HCWs in LTC homes in this inquiry had to develop coping strategies for the many psychological stressors they experienced.

The next chapter discusses how these HCWs coped and lived through the pandemic on the frontline in LTC homes in Southern Alberta.

CHAPTER FIVE: FINDINGS II

The COVID-19 pandemic exacerbated workplace stressors that HCWs in LTC homes experienced. These stressors, in turn, resulted in some mental health challenges for HCWs, which led some to adopt coping strategies to help alleviate these challenges. In this chapter, I present how HCWs in LTC homes managed their mental health stressors during the COVID-19 pandemic. This chapter addresses the research question regarding the coping strategies adopted by HCWs to cope with the stressors identified in Chapter 4. I discuss three key strategies that the HCWs used as coping responses to the identified stressors in Chapter 4 of this research. These three critical strategies are: (a) Behavioural coping responses, (b) Social coping responses, and (c) Internal and spiritual coping responses. I conclude this chapter by summarizing the entire findings, answering this study's second research question.

Theme 1: Behavioural coping responses

Nine participants from this study identified varying degrees of helpful activities and personal care that assisted them in managing the psychological stressors that they encountered during the COVID-19 pandemic. In this context, behavioural coping responses refers to the strategies HCWs utilized during the pandemic that involved changing existing behaviours or adopting or learning new behaviours to manage stressful events, crises, conditions, or situations considered distressing (Carr & Pudrovska, 2007). These behavioural coping responses revolve around several activities discussed in this section, such as enforcing their limits by declining additional work, and gathering credible information about COVID-19 to be more informed, better prepared for care work, and mitigating fear of getting infected and the unknown Participants believed these coping strategies went a long way for them in managing most of their stressors.

Enforcing one's limits by declining additional work

Awareness of one's limits and capacity is essential for a healthy and balanced lifestyle, including thriving relationships (Jo Nash, 2022). One behavioural coping response the participants described was enforcing personal limits and learning to decline additional work. This refers to a HCW understanding how much work they are capable of, and their tenacity to enforce a personal limit by saying 'no' to additional tasks asked of them above and beyond their standard workload. This research study shows that HCWs may have benefitted from understanding their limits and capacity due to how they responded to the stressful events they encountered. Though some participants struggled to say no due to the moral obligations they had for the job they eventually found the courage to stand their ground. These workers recognized their limits, aiding their decision to not be overburdened. This understanding enabled them to manage their energy efficiently when demanded to perform strenuous and draining tasks.

> *...[um] [takes a very long pause] well right, now, right now, [um] having like, [um] put my foot down and knowing what I am doing; when I can come in and when I cannot. [Um] That is the highlight, this is the hardest, this has been the highlight of my job, you know, putting my foot down, saying "well, I cannot do this anymore." I cannot even, I'm not even going to discuss this situation with anybody, you know? That would be it for me. (Promise, LTC home B)*

> *I'm also learning to say no, NO. I'm also learning to say no because I tend to be extremely nice, I'm going to use the word, the phrase extremely nice like my facility, we have staffing issues, we don't have enough registered nurse and I know we don't have enough registered nurse. And I'm like the youngest, nurse amongst the permanent nurses. The other nurses are traveling nurses. So, I'm like when I get a call to come fill-in, I look at the schedule and I know that no one else is going to be able to come in but me and I just pick up those shifts. (Simbi, LTC home B)*

Taking time off from work

Another behavioural coping response identified in the research findings is related to participants actually taking time off from work, which refers to HCWs using accrued vacation days, and in some cases, utilizing stress or sick leave time. These workers chose to be away from their workplace to have personal time for themselves and their family members. HCWs utilized this strategy to reenergize themselves and better prepare for the day-to-day activities and challenges they experienced as HCWs in LTC homes during the pandemic. When these HCWs took time off work, they did not have to be bothered about what was going on at work, and neither were they approached to take on additional workload and shifts as they were away from their workplace. This behavioural coping response of taking time off work through stress leave or sick time significantly helped them manage many stressors they faced, as they could rest up and attend to other things besides work. This coping response was mentally rewarding, as described by Hailey and Delly:

> *And there are many people they take, you know, stress, stress leave, you know, they take that. [Um] I haven't taken that but sometimes, yes, I tell them if I am stressed, yes I tell them, You know, I, I need this just one, one week, you know, I'm a little bit stressed. Yeah. So [err] sometimes they give you, they give you like one week to take your vacation. So and you come back, you feel fresh again. And yeah. (Hailey, LTC home A)*

> *I think taking out time for myself, [pauses] that really helps because like, you can't, you can't do anything if you are not well, you can't do anything if you're stressed, right?... So I had to take two weeks out and just like, think about everything… took lots of rest. Just I, I had to like, take time off work and that was really needed and that really helped me. So just really helped me get back… Taking time off worked for me, it's always important to just take time off… Like my thinking capacity is better, now I know that if, if I'm getting stressed again, I would take time off, which I have to take time off because like you just, you can't work if you're mentally drained. (Delly, LTC home D)*

According to the participants of this study, declining extra jobs, while taking a break from work through stress leave or vacation offered them an opportunity to revive, which may have increased their quality of life both at work and in their personal life.

Gathering credible information about COVID-19 in order to be more informed and better prepared for care work

Other participants turned to informal education and research to further their knowledge about the COVID-19 disease through different credible sources of information. This informal research and individual learning helped alleviate various fears and better prepare HCWs to care for their residents. By being more informed about the nature of the disease, how it spreads, and strategies for containment, these HCWs felt less helpless going into work. They felt increased confidence in their ability to provide safe care for residents and to protect themselves from the disease. Having some sense of control during an uncertain time helped to reduce their stress. Summer from LTC home C stated how she was able to obtain free resources online:

> *…all the good stuff was selling out at first, [um] and then I found like some free resources online which was great, some classes… (Summer, LTC home C)*

> *…so I would say you just take one day at a time and read everything, make sure you're up to date and following all the guidelines… Yes, that's right. Yes, yes. Yes, the education, making sure we're keeping up to date and reading. (Dilya, LTC home A)*

Sally felt that information presented by experts in the field of public health went a long way in getting the knowledge she needed to manage fears concerning the disease and how to be cautious as an HCW during the pandemic. Comparing the information by experts in the field of infectious disease from the previous H1N1 flu outbreak helped her significantly. In essence, Sally felt that now that COVID-19 was in full force, she had no choice but to trust and listen to the knowledge being disseminated by the experts on the disease:

> *It's not about me as if this is what the [um] the health experts feel, I have to believe that they do know what they're talking about and trust them and believe in the system. And so that's when I, how I am educated in believing [um] to the professionals…I think no different than any other vaccination that we've required to be honest, like H1N1, the flu. [um] You know, it's a precautionary thing that it's, it's here to help us not to – I know that some people have had side effects here and there, but that's a very low percentage and that can happen with anything. So I believe in what the experts say… So I think just being educated, I guess. And so we learned things as well of how we had to adapt and change things. (Sally, LTC home C)*

For some HCWs, having the proper information on COVID-19 from credible sources reduced their anxieties and fears. These participants were convinced that adequately following the guidelines and obtaining information from credible sources was an excellent behavioural coping response to mitigating some stressors associated with the pandemic.

Practicing healthy lifestyle behaviours in order to feel well and experience a sense of control over one's health

Practicing a healthy lifestyle (e.g. through diet/eating healthily, exercising, and getting a sufficient amount of sleep) to help live through the global pandemic as frontline HCWs is another behavioural coping response that some HCWs utilized. In this context, practicing a healthy lifestyle meant that a HCW ensured eating healthily during the pandemic. Here, two participants stated how eating nutritiously was beneficial to their lifestyle during the pandemic. Examples of this can be seen in remarks from Summer and Mercy from two different LTC homes:

> *And I was caring a lot for myself, like, I will go to the gym or I was eating healthy. (Summer, LTC home C)*

> *…trying to eat healthy… (Mercy, LTC home A)*

Five participants coped with their pandemic stressors by exercising, having enough sleep, and ensuring that they took their prescribed medications to help with their mental health. Three

participants indicated that going for walks and exercising were beneficial to de-stress, boost mood, and help their mental health alertness. They expressed that recreation in this form was very therapeutic, boosting their self-esteem, and alleviated the stress they experienced from work. Sally and Summer reported on this behavioural coping response:

> *And before that, too, I just should say this. I also take care of myself. I feel recreation is important for my well-being. So throughout COVID, I went for walks. You know when the fitness centres closed down, I, I went for walks. I did things [um] on my own. (Sally, LTC home C)*

> *[Um] and then like working out is super therapeutic for any kind of stress. So, [um] yeah, just staying active with my mind and also with my physical abilities… Yeah [um], at first, I wasn't really doing anything because I was just so busy with work. But then I started to do, like, my own at home workouts, so I got weights, you know… And I was caring a lot for myself, like, I will go to the gym… (Summer, LTC home C)*

Some HCWs expressed how being physically fit – with the end goal of managing their mental health through walks, exercising, having enough sleep, and taking their medications – helped them significantly during the pandemic. These individuals assumed that lack of proper sleep was harmful and led to negative emotional outcomes while at work. To them, quality sleeping meant that they could rest for longer hours, uninterrupted, to renew their energy, and enhance mental clarity for their next shift. They felt sleeping for such a period was not harmful but alleviated workplace and psychological stressors. This concept is expressed in what two participants had to say:

> *And so doing that and giving myself a break, understanding that it was OK that if I came home and needed to go to bed at six o'clock, even though I just got home at three, that it was OK to sleep more…(Chrissy, LTC home A)*

> *I'll say talking to my family on video calls mostly. Trying to get enough sleep… (Mercy, LTC home A)*

Though being physically fit and having a quality sleep greatly countered many psychological stressors, complying with prescribed medications was another effective form of behavioural coping response. Simbi expressed how taking prescribed medications to manage her clinically diagnosed mental health challenges was of great help to her. This strategy was another form of behavioural coping response to the psychological stressors a HCW in a LTC home experienced during the COVID-19 pandemic. The pandemic made this already medicated HCW become more reliable in using her medication than ever before. In this context, being medicated refers to the consistent use of prescribed anti-anxiety and anti-depressant medications to assist in managing specific clinically diagnosed mental health challenges. Simbi from LTC home B reports:

> *And I can assure you before now, I wasn't medicated, but now I am medicated, I am right now, I take my medication, you know when it's – what do you call this? There's this [um] term we use in the health sector. I am more compliant with my medications than ever. I am more compliant than ever because I don't even want anything to stress my family members and you know, like you understand what I mean, so I'm more compliant than ever… I'm sticking with my medication. (Simbi, LTC home B)*

COVID-19 Vaccination

A final behavioural coping response that the majority of the HCWs utilized was getting vaccinated against the COVID-19 virus. Vaccination in this context refers to the proactive measures and treatments taken via intramuscular injections (IM) by participants to produce immunity against COVID-19 disease. The production of the various COVID-19 vaccines alleviated the psychological stressors experienced by some HCWs. Though some participants were initially skeptical about the vaccine, most of them expressed getting vaccinated helped alleviate their fears and helped manage the psychological stressors they experienced.

For many, taking the vaccine was a great help to their mental health. Examples of this are seen in what some participants had to say:

> *[Long pause] [Um] It kind of took away all the worries that I had and the panic, and an anxiety. Knowing that, like, getting vaccinated would actually improve your immunity. And prevent you from getting that. Getting infected and getting maybe hospitalized. (Tammy, LTC home A)*

> *But actually taking the vaccine now has really relieved me a little because I know even if I have COVID, I know there will be less severity and that kind of helped my mental health a little because I know that I[pauses] I might not end up in the hospital because I have the vaccine already and [um] I [pauses] it's one less patient for nurses to be stressed about. So, and that really helped me mentally, because even [pauses] I did have COVID last year, even with the vaccine, but I [pauses] it was just mild and I'm thankful for that because it was [pauses] I didn't end up in the hospital, and that's me not working for a while… But vaccines actually helped me mentally because I know I can go to work. I can go to work and just be happy that at least it's just one less person in the hospital. (Delly, LTC home D)*

Other HCWs felt that the COVID-19 vaccines also assisted in cushioning the effects of consistent outbreaks in contrast to when there were no available vaccines. Some felt that even with residents being vaccinated, some still had the COVID-19 disease. Some HCWs reported this as:

> *So, but what I realized is that, because these residents and myself and everybody that was around that environment had all had their vaccine already, I realized that the effects, the impacts of these, of these [err], of this infection was not severe at all. (Adele, LTC home B)*

> *Now the ones that are getting COVID, yeah, they the, the vaccine has helped, they don't get sick. And they but still the ones that are weak and very low have still passed away even with the precautions, right? So, yeah. (Sally, LTC home C)*

From my data analysis, being vaccinated against COVID-19 was a behavioural coping response as it created positive mental outcomes for HCWs during the pandemic. Being vaccinated against the COVID-19 disease is a central behaviour coping engagement towards the pandemic stressors for the participants.

Behavioural coping responses associated with emotional eating and drinking

During my data analysis, Chrissy reported how eating for comfort and consistent intake of alcohol helped her manage her many psychological stressors. Examples of what she had to say about this are as follows:

> *And I also, food was a big thing for me and still is a big thing. Food comforts me, and so choosing to take that time to either cook something or once restaurants were doing delivery to just decide to treat myself because I couldn't really do that, that comforted me a lot to be able to just enjoy that, to forget about having to access all the gyms closed down and that that went out the window [gesticulates with hand in a circular motion] and exercise and stuff because I was not thinking about, I was too stressed out running around at work, the last thing I needed to do was restrict my food and try and lose 30 pounds… So instead, instead of limiting things like I think I did pre-COVID, because pre-COVID I was going to the gym all the time and I was on food, different meal plans and, I think, health conscious trying to achieve those Victoria's Secret body goals that everyone sort of has for some, I was like screw it, I'm going to eat the cheeseburger and the 10 pieces of chocolate, and if that's what's going to make me feel better at the end of the night, that's what I'm doing. Because guess what? I need to be able to function for my patients in my residents. (Chrissy, LTC home A)*

> *[Um] I drank a lot honestly, Alcohol consumption is a great thing, and I certainly have indulged in quite a lot of alcoholic beverages over the, and I don't think I ever got drunk each night. But I do think a glass of wine at the end of the day, or I drink, or two really help to just de-stress a little bit. [Um]. (Chrissy, LTC home A)*

In conclusion, though only one participant indicated eating and drinking as strategies to cope with her pandemic stressors, she mentioned it several times as an effective strategy for her.

This section explored the theme of behavioural coping responses to manage the psychological stressors participants experienced at their workplace. Among the multitude of behavioural coping responses reported, the most common included: getting vaccinated, enforcing their personal limits by declining additional work, and taking time off work. Participants in this research study explained how these behavioural coping responses significantly helped alleviate mental health challenges related to workplace stressors during the pandemic. However, these

HCWs not only utilized the behavioural coping response to manage their psychological stressors but also engaged in social coping response. This type of coping response is discussed in the next section.

Theme 2: Social coping responses

Interviewed participants reported engaging in some form of social coping response that alleviated the psychological stressors they experienced as HCWs during the COVID-19 pandemic. In this context, social coping response refers to the process through which individuals utilize relationships and connection to help manage their workplace stressors. This could involve leaning on existing relationships, developing new ones, or changing their approach to social relationships to ensure they meet their individual coping needs. Many sought instrumental support in form of relationships and connections to gain assistance and resources from their community through the help of professional therapists and counsellors, family members, and friends. Such social coping responses adopted by participants in this study include: incorporating a mindful daily practice of finding relational and social fulfilment at work, at therapy and counselling sessions, through co-worker support, and by accessing support from family and friends.

Finding happiness and fulfilment as a support to others

During the interviews, finding fulfilment at the place of work was a strategy that one participant reported alleviated her many psychological stressors. This coping strategy refers to being happy and satisfied by positively impacting residents while working and having inner peace. This participant felt fulfilled through the social coping mechanism of being a source of inspiration, support, and care to these residents during such dark moments of the pandemic, especially with no family around to attend to these residents. Promise from LTC home B found that serving her residents positively impacted her mental health:

> *Yeah, that's, that's just how I cope this time, having to – like removing myself from my own situation not putting myself first. I know it's wrong, but when I think of how I am able to, like, impact other people's lives, having to be at work, I, I used it to cope. It makes me like, relax and take another perspective… we could be the recreational staff at the time, and [um] helping them at this crisis, it really helped me feel better. (Promise, LTC home B)*

Being happy and fulfilled by building connections with and helping residents brought satisfaction to this participant and made living through the pandemic as a frontline HCW in a LTC home much better. In a similar manner, some participants found other social coping responses helpful in mitigating the psychological stressors they experienced.

Engaging professional therapists and counsellors

Another social coping response was the use of therapists and counsellors. Participants were able to recognize the need to speak with a professional to help them maneuver and live through the COVID-19 pandemic. These HCWs felt they needed a professional's guidance, someone willing to listen, and guidance regarding any other coping strategies they needed to effectively deal with their current mental health situation. In this context, therapists and counsellors are professionals often paid to listen to the many challenges an individual may be experiencing or may have experienced in the past. These professionals then provide emotional support, practical solutions, and guidelines to address the complex emotions their clients' experience. Frontline HCWs, having faced the many workplace stressors that led to unique mental health challenges, needed an avenue to express their frustrations. These individuals felt that utilizing this strategy was a tremendous social coping response to their psychological stressors. This is evident in some examples described by two participants from two different LTC homes:

> *I now seek for help more than I usually, you know before now, the Nigerian mentality now, you don't need to talk to [mumbles some words] like what is therapy? Therapy for what? Like, Like, I don't get you – understand what I mean?*

> *There's no need for therapy, there's no need for, [ha ha] you know, but now I'm like, therapy is needed when you need therapy. Ask for help… (Simbi, LTC home B)*

> *I went to counseling on a regular basis, and so that was really helpful, not just for stress or like my anxiety, none of that kind of stuff [um] just to like talk and have someone objective. [Um] [Hmm hmm] I think it's normal to deal with stress like there's good stress and bad stress, obviously. [Um] So how did I manage it? I obviously went to counselling… And I was doing online zoom counselling which isn't the funniest, but it's still something... You know, the biggest thing I found is like just having like an employee assistance program or like maybe a counsellor at the home somewhere where you can debrief with them because, if you weren't going and getting help, people are really struggling and you shouldn't have to pay like two hundred dollars to go and talk about it or debrief with someone you don't know. Right? (Summer, LTC home C)*

Coworkers' support system

Another social coping response demonstrated by some participants involved receiving support from their colleagues at their workplace. Having co-workers experience the same form of psychological stressors and being united is observed in this study as a potential social coping response. Many of these HCWs reported depending on their colleagues for much-needed support to help live through the COVID-19 pandemic. Often, these HCWs' interactions centred on informally sharing their experiences and providing much-needed emotional support. Confidently sharing and expressing how they felt to fellow colleagues helped them manage the many mental health challenges they experienced. These shared experiences and support for each other made working together as a team easy, even during demanding and difficult situations.

> *I think being able to talk to other professionals, like other, that healthcare aides there, you just, just venting, just venting. (Delly, LTC home D)*

> *…They come to you with everything, so you have to be able to respond to them, nicely. So you can, you know, boost their own morale even though they are short-staffed… Do you know the honest truth is – what, what has really worked well, what I really looked at, the factor I really looked at to get that resilience and to draw in strength is actually from my team, that's the funny thing…. You know*

> *what I mean? Just sometimes we are doing reports and we are short two, and I look into the face of those HCAs, like I'm the RN, obviously we only have one RN on every shift. And I look at those HCAs, instead of six, I see four. And we are talking in report and after reports they get up and get started [seems like the participant is slamming her table-sounds of table slamming can be heard] I'm like who I'm I to complain? Honestly, you know, do you understand what I mean? Like, I'm like my team are here to do what they need to do I have to be here for them too, I have to, you know, also pull my own weight so that we all deliver the best care we can for our clients. You know, "damn" the consequences, you know, let's OK. OK it's like a matter of ok like the "300" [referring to the epic movie in which 300 strong soldiers in Greece went to war with thousands of enemies]. We can do this, let's go. There was a day I got to work and I told them, I said, sometimes I feel like this is my happy place. (Simbi, LTC home B)*

Friends and family support system

With HCWs having a united front, working, and supporting each other through the pandemic, support from family and friends also immensely helped alleviate the psychological stressors. Some participants identified that family and friends were a crucial support structure they utilized as frontline HCWs during the COVID-19 pandemic. Some participants felt that being able to speak, and hear from, as well as spending quality time with their family and friends were crucial elements to their mental wellness. Being encouraged and emotionally supported by family and friends in this study was found to impact the mental health outcomes of these workers positively. This is evident in what three participants from different LTC homes had to say:

> *[um] I had, I have a very great, very close friend who was super supportive and she was my person and still is my person… go out to eat for meals with friends, go visit friends whenever you felt the need to, go down to Waterton day trips or stuffs on my days off, just relatively being able to be free to do whatever it was and know that once I left work, I am in a comfortable environment and I have access to anything I wanted to do. So that was easy and you know, you didn't have, having to worry about anything… And so we just decided very early on that despite whatever the rules Kenney or the government was putting in place, we would make sure we made time for each other at least once a week to see each other, if not more than that. [um] She understood, still understands what area I'm in. She knew the risks we were taking [um] and we just decided it was more*

> *important for both of us to have each other [um] than not. I mean, she is married and has a husband and has kids, but friendship is different and we've been best friends for forever and a day. And so that was really helpful. (Chrissy, LTC home A)*
>
> *I'll say talking to my family on video calls mostly… I'll say the family one, which was the most – that really supported me most. Yes, for me it worked really well with family. (Mercy, LTC home A)*
>
> *I spend more time with my daughter. [um] I'm also beginning to talk to my husband about us spending more time together to do fun things that can you know, just make you happy, even though there's a lot of stress going on around you and everything. (Simbi, LTC home B)*

In summary, my findings indicate that several HCWs in this study applied adaptive coping strategies in the form of social coping responses. These social coping strategies, which included being fulfilled while working, professional therapists & counsellors, co-worker support, and friends and family support, helped create the support structure needed to live through the pandemic as a frontline HCW. The analysis of the data in this study relating to the social coping responses indicates that several HCWs felt they needed to exhibit courage and stability since it was their choice to serve society during such a global pandemic. The following section discusses how some participants in this study demonstrated another adaptive coping strategy: internal and spiritual coping responses.

Theme 3: Internal and Spiritual coping responses

Internal and Spiritual coping responses is another way that participants lived through the pandemic as frontline HCWs. The spiritual strategies exhibited by participants in this study are those internal ones, based on personal thought patterns, emotional processes, and connection to self or a higher power. By definition, the term "Spirituality" is defined as an aspect of humanity in which individuals seek to express meaning and purpose, the way they experience their connectedness to the moment, to self, to others, to events, to nature, and to the significant or

sacred. (Puchalski et al., 2009). This was expressed through different coping mechanisms centred on believing in a higher and unseen power, and being aware of self through journaling, and other spiritual practices, such as being optimistic about the future, and acceptance of the realities of COVID-19. “Prayers,” “God,” and “Spirituality” were common phrases during the interviews.

Praying to God

These participants believed praying to God assisted them in maintaining a healthy attitude while working as frontline HCWs during the pandemic. Prayer can be defined as an in-depth conversation with a higher being for the purpose of imploring or petitioning for something or someone as an individual or as a group (Saad & de, 2012). During interviews, some participants expressed how they prayed before going to work, and others noted how grateful they were to a higher power that they perceived to be God. Some examples of this concept are evident in what two participants in two different LTC homes had to say:

> *I had to pray every morning before I went to work because I was scared of being exposed to that [um] disease… Yeah, yeah. I said prayer… I'm very principled and I try to [um] go with [um] with research and my spirituality… So, I said it to myself, number one spiritually, I need GOD to protect me because this disease is invisible. I need somebody invisible to protect me as well [pauses] against this disease… My household has never gotten it. Praise Jesus… and I prayed to God for protection because that's all you can do within your human power. (Adele, LTC home B)*

> *…and my spirituality really helped because like, [um] I couldn't really go to church. But like watching, watching [um] my pastor preach online and just getting through like my spirituality and just praying. That really helped me too… I think that really helped me to cope and just, just going to church, like just making sure that my faith is OK… Just pray, strengthen my faith. Pray, [um] just hoping for better, especially taking care of myself… So taking time was actually worked best for me and just strengthening my faith. (Delly, LTC home D)*

This form of spiritual coping response also presents here as an adaptive coping strategy in which they express their faith in God, which enabled them to pray to this higher power.

Reflections and journaling

Reflections and journaling were other mechanisms some participants reported to have used to process the complex thoughts and emotions they experienced as HCWs during the COVID-19 pandemic. A few interviewed participants reported how reflecting and writing down their experiences and reflecting on the same was an excellent way to alleviate their psychological stressors and live through the pandemic as a HCW. Reflections and journaling have both been found to be constructive endeavours that positively impacts the stressors an individual may be experiencing (Marisano, et. al., 2010). This is evident in what interviewed participants described as a coping response to manage their stressors at work during the pandemic. Utilizing this strategy gave them the ability to slow down, take a step back, and document all that they were experiencing to better help manage their stressors. Examples of this are seen in what Delly from LTC home D and Summer from LTC home C expressed:

> *So, I had to take two weeks out and just like, think about everything… So what I did was just, like, sit back down, just write back everything, and reflect on everything that's happening… So I just wrote things down, took lots of rest. (Delly, LTC home D)*

> *[Hmm hmm] I think it's normal to deal with stress like there's good stress and bad stress, obviously. [Um] So how I did manage it… I'm a big writer and so I would write a lot… Like, I'm not doing good and I need to take a step back and take a bath in the night or write some more…. You also worked so much that it's like, is this affecting me or is it not affecting me? Right? And then that's when you hit burnout, for sure… And then I still wrote like, I'm still a big writer, but it's only like at nighttime before bed, which is perfect. (Summer, LTC home C)*

From the data analysis, it is evident that reflection and journaling served as an internal and spiritual coping response, allowing participants to express their thoughts and feelings in a safe space. Furthermore, this response enabled participants to understand better their mental health and the challenges and emotions associated with the pandemic stressors they experienced.

Being optimistic

Some participants described how being optimistic and looking at the bright side of life during the pandemic while on the job was a form of spiritual coping response for them. The type of optimism displayed in this research by two participants presents as a "dispositional optimism." Dispositional optimism refers to the generalized global tendency to expect a positive future outcome rather than a negative future outcome in life (Scheier & Carver, 1985). The dispositional optimism displayed by these participants shows its relationship with spiritual practices. Previous studies have indicated a relationship between spirituality and positive outcomes such as a higher optimism and hopeful outlook (Arrieta et al., 2017; Cid et al., 2021; Salsman et al., 2005). My data analysis utilizes this concept, seeing optimism as a form of spiritual practice participants turned to for motivation and to manage the stressors they were experiencing as frontline workers. This is evident in what Delly and Tammy from two different LTC homes had to say:

> *... I think the hope in people that things would change is what like got me through. Like it actually got me through [pauses]... Hoping for the best. That really helped me, like, to cope with the stress." (Delly, LTC home D)*

> *I just said to myself that everything was going to be fine, and there is a reason for everything that's happening now. (Tammy, LTC home A)*

These participants explained that by having a positive and hopeful outlook on their current situations as frontline HCWs, they could better cope and live through the pandemic.

Acceptance of the realities of COVID-19

Accepting the realities of the COVID-19 pandemic was another internal and spiritual coping response adapted by some participants. These participants felt that by accepting the fate and realities of the pandemic, they could somehow manage the psychological stressors they encountered. In this context, accepting the realities of COVID-19 refers to coming to terms with

the fact that they are unable to control the circumstances caused by COVID-19, and accepting the experiences that COVID-19 has brought their way in a healthy and non-judgmental way. By accepting the realities of COVID-19, they were able to become less prone to worrying which in turn led to better wellbeing and becoming less reactive to the many stressors that they had initially encountered. This coping strategy also made them acknowledge how they had limited control over the pandemic, and with this knowledge, their stress level became minimal. They viewed the emergence of the COVID-19 disease as one that has come to stay; thus, it is something with which they must learn to live.

> *I started accepting that this is the reality now and this is the reality and we can deal with this, we can move through this. We can walk through this. Let's just give it time to, you know, to pass [pauses] to, to, to run its course. (Adele, LTC home B)*

> *Changing my mindset about it, I think finally being able to accept that I can't control, because I have control issues, I have little OCD [um] accepting that I can't control what's happening around the world and around society [raises left hand]… it'll be interesting to see how changes occur and how we get back to a new normal because it's never going to be the same normal. I, it's interesting to know what the new normal is and to see where it goes from there and how we continue to deal with COVID and if it will be treated more like a flu moving forward. (Chrissy, LTC home A)*

As acceptance of the realities of COVID-19 relates to internal and spiritual coping response, some studies have suggested the art of meditation as a form of spirituality (Hamilton, 2022; Holt, 2015). Other studies indicates that meditation and learning how to accept what is, rather than fight it can be a deeply spiritual practice that leads to significantly less stress (Evans, 2009; Lindsay & Creswell, 2019; Swain et al., 2013). While not all participants engaged in structured meditation, they did find that practicing acceptance had significant benefits in reducing their stress.

In summary, this chapter has presented the findings associated with how HCWs lived through the pandemic as frontline HCWs in LTC homes. Three themes, including behavioural, social, and internal and spiritual coping responses, are identified as the strategies that the HCWs utilized. These identified strategies showed that participants could find the much-needed strength and sources of inspiration to help them manage the various psychological stressors they were experiencing. It is worth knowing how the findings from this research study correlate with coping strategies that had been previously used to manage perceived psychological stressors, and how these findings may add to the body of knowledge. Chapter 6 discusses in depth how the findings of this study adds to the body of knowledge and extends to previously published literature.

CHAPTER 6: DISCUSSION

In this chapter, I present and discuss how the major findings of my research study extends, and adds to the body of knowledge in the area of the phenomenon being explored. I also discuss practical implications for healthcare, study strengths and limitations, and recommendations for future research on the phenomenon being explored. To date, the COVID-19 pandemic may have changed the world and the healthcare system (Haldane et al., 2021; Rajkumar, 2020). The result of my research study expands and explores new areas of moments of public health crises, such as the COVID-19 pandemic, while simultaneously furnishing more precise and intricate insights that help improve our knowledge of the stressors of the coping mechanisms that HCWs used during the COVID-19 pandemic in LTC homes. This study also offers rich perspective of the workforce in the LTC sector during a global public health crisis and the distinct challenges they face in the Southern area of Alberta. In addition, my research demonstrates that the mental health of HCWs in LTC homes can be significantly compromised during a public health crisis. In the early stages of the COVID-19 outbreak, HCWs in this study made considerable sacrifices and faced difficult circumstances specific to each individual. Previous studies have predominantly concentrated on the experiences of particular groups of HCWs (RNs) in various healthcare settings, however, this research study and its outcomes encompass a variety of HCWs, such as licensed practical nurses (LPNs), healthcare aides (HCAs), recreation and assistant therapists, and registered nurses (RNs).

Chronic understaffing related to COVID-19

During data analysis, *understaffing* was highlighted by all participants as a major stressor of the mental health challenges they experienced during the pandemic as frontline HCWs. As described and acknowledged in other published literature, work-related stressors are major

contributor to the mental health and wellness outcome of HCWs in any organization (Alghamdi, 2016; OANHSS, 2014). Likewise, another research by Zakeri et al. (2021) defines "work-related stress as an emotional, perceptual, behavioral and psychological reaction associated to negativism related to an individual's job or workplace, respectively." Some research reports that a work environment not conducive to employee mental health may lead to various issues that could affect the performance and productivity of employees (Awan, 2015; Chaudhry et al., 2021). Other documented research demonstrates how workplace conditions within a healthcare organization are among the most important predictors for HCWs' outcomes, including their mental health and physical wellbeing (Aiken et al., 2001; Havaei et al., 2021; Leiter & Laschinger, 2006; Lake et al., 2019). The results of this study indicate that, during a global health emergency like the COVID-19 pandemic, unfavourable conditions in the workplace can have a significant and dramatic effect on the psychological well-being of HCWs in LTC homes. HCWs in LTC homes are usually faced with the stressors that come with the job within their work environment and have become accustomed to them (Lang et al., 2004). This study affirms what most literature has reported, as participants in this study described how the stressors associated with their workplace were seen as being part of the job. Even though these known stressors seem harmful to their physical and mental health, these HCWs' perception about their experiences seems to be the norm pre-COVID-19 pandemic for them. Though stressful, these HCWs view their daily work at a hectic pace and the execution of their tasks in LTC homes as just another working day prior to the pandemic (Aiken & Sermeus, 2012; Kerfoot, 2007). Although understaffing has been an issue for many years pre-COVID-19, it took on new forms as it became worse and more chronic, contributing to mental health challenges in HCWs during the COVID-19 pandemic.

HCWs interviewed for this study described how chronic understaffing was a major work-related stressor that impacted their mental health during the pandemic. HCWs' heavy workload is frequently related to the health of human resource management (Myny et al., 2011). Some HCWs complained that the staffing shortage during the pandemic reduced the quality of their work while attending to their residents compared to when they are fully staffed. A relationship between HCWs' work volume, staffing levels to patient ratios, mental health of HCWs, and the quality and safety of patient care exists (Awosoga et al., 2020; Macphee et al., 2017). In essence, when HCWs experience staffing shortages, the care of residents may not be performed; therefore, the quality of care and safety of residents may become compromised (Aiken et al., 2002; Ball et al., 2014). Some studies report a relationship between staffing levels and the risk of adverse mental health outcomes for HCWs (Aiken et al., 2002; Awosoga et al., 2020; Halm et al., 2005; Havaei et al., 2021; Sheward et al., 2005). Another study reports a strong association between staffing levels, the quality of care, and quality of life amongst residents in LTC homes (Desimini, 2010). The participants in this study confirmed what has been stated in published literature about understaffing and its impact on mental health.

In summary, our study confirmed that understaffing impacts HCWs in LTC homes pre-COVID-19 and during COVID-19. HCWs in LTC homes have been accustomed to the stressors associated with their workplace, seeing them as part of the job. The pre-existing issue of understaffing was amplified during the COVID-19 pandemic, leading to increased mental health challenges for HCWs. This study extends and contributes to the existing scholarship by providing a comprehensive examination of the impacts of understaffing on the psychological well-being of HCWs during a public health crisis such as the COVID-19 pandemic in the context of LTC homes. This study uniquely considers the intersection of the COVID-19 outbreak and

staff shortages, as well as the impact of such a shortage on the mental health of HCWs. Moreover, the findings from this study may be used to inform the required policy interventions at different levels, which may reduce these detrimental impacts on HCWs in LTC homes.

Working longer hours and increased workload

The findings from this study also indicate how working long hours, and heavy workload present as pandemic work-related stressors. Participants described that due to staff shortages on their shifts, they had no choice but to stay at work longer than planned. Other studies report that long hours of work are associated with understaffing and lead to workplace injuries, which are not limited to psychological stressors (CHA, 2009; Desimini, 2010). Earlier studies also acknowledge that HCWs (specifically nurses and health care aides) experienced increased workloads with a negative outcome on both their mental and physical health (Curlings & Simmons, 2010). Other literature found that HCWs working during COVID-19 have experienced a significantly increased workload and longer working hours, leading to substantial levels of physical and psychological stress (Hoogendoorn et al., 2021; Ito et al., 2022; Lucchini et al., 2020). In addition, these literature reviews found that these HCWs were subjected to increased burden of responsibility due to the additional tasks taken on during the pandemic, such as caring for patients with COVID-19, which was accompanied by feelings of anxiety, fear, depression, and burnout.

Some participants indicated they had to work double shifts due to short-staffing during the COVID-19 pandemic. These HCWs described how working longer hours, often 12-to-16-hour shifts, negatively impacted their mental health. They stated that after working that long, they experienced psychological stressors from depression to anxiety and a host of other perceived mental health issues. Previous literature acknowledges how irregular and longer work

by HCWs presents negative consequences to the health and safety of HCWs and residents alike. These studies identified how irregular and long hours of work result in a decreased ability of HCWs to adequately identify any changes and adverse effects in their residents (Griffiths et al., 2014; Son et al., 2019; Trinkoff et al., 2011). Consistent with my findings, other studies reports how HCWs experienced several mental health challenges, such as depression and increased emotional and mental fatigue, coupled with physical health challenges such as insomnia and musculoskeletal disorder (Harris et al., 2015; Reicherts et al., 2022).

In summary, the COVID-19 pandemic has caused immense pressure on an already outstretched and overworked HCWs, causing many to retire or reach their "breaking point" (Registered Practical Nurses Association of Ontario, 2021). This has been exacerbated by the increased workload and the inability of HCWs to keep up with the demands of working as HCWs during the pandemic. This study found that in the LTC homes of Alberta's Southern region, the COVID-19 pandemic has further increased the workload and working hours of HCWs, which corroborates other literature. Overall, the findings of this research study indicate that the extended work hours and increased workloads among HCWs in this study during the COVID-19 pandemic had a detrimental impact on their mental and physical health.

Impacted/strained relationship between the HCWs

Furthermore, studies have highlighted how increased and demanding workload, coupled with chronic understaffing, and longer working hours could lead to strained relationships among HCWs which could ultimately impact their work (Messenger & Vidal, 2015; Yildirim & Aycan, 2008). Some participants expressed how most work-related stressors related to chronic understaffing led to strained relationships amongst colleagues while working in a LTC home during the pandemic. These strained relationships emanated from a place of internal frustrations,

thereby leading to negative outbursts. One study showed how the relationship between HCWs was profoundly disrupted and reshaped during the COVID-19 pandemic (Butler et al., 2021). Another study demonstrated a relationship between a stressful work environment relating to absenteeism stemming from staffing shortage, miscommunication, and tension among HCWs, created a strained relationship among workers (Abd El-Moneam Ahmed & Gaballah, 2023).

Although conflict among workers could occur in any establishment or institution, such issues may often be exhibited in clinical settings where continuous interactions among staff and patients occur (Sulivan, 2012; Williams, 2012). Often, when not resolved swiftly and adequately, these relationship strains result in lack of organizational commitment that eventually affects the quality of patient care (Buchbinder et al., 2014; Chassiakos et al., 2020). Participants interviewed in this research study didn't specifically indicate the existence of strained relationship prior to the pandemic, they only described the occurrence of such conflicts during the pandemic. Other studies report, that while strained relationships may have existed among HCWs prior to the pandemic that affected their mental health, the pandemic worsened or precipitated new strained relationships and conflicts among HCWs (Rocha & Correa, 2020). With the array of literature, it is safe to say that the COVID-19 pandemic readily created stressors that led to conflicts and strained relationship among frontline HCWs.

Though much of the results of this research align with previous literature, my findings highlight the importance of the working conditions in which HCWs find themselves during a public health crisis. The working conditions for HCWs in LTC homes had been a national debate. The interviews with participants in this study suggest that many of these challenges, such as inadequate staffing, and low wages, etc, could have been avoided with better working conditions prior to the emergence of the COVID-19 pandemic. My findings reinforce how work-

related stressors are a huge factor in the mental and physical health of HCWs in LTC homes during the COVID-19 pandemic. Numerous factors already existed in the workplace pre-pandemic, and it is imperative to know that the intense workload of HCWs is a major threat to their physical and mental health stability (Liu et al., 2020; Martínez-López et al., 2020; Sarboozi Hoseinabadi et al., 2020; Serrão et al., 2021). Therefore, efforts must be put in place to improve the working environment of HCWs in LTC homes, specifically in the area of adequate staffing levels more suitable to a public health crisis, thereby preventing HCWs from further experiencing unfavourable psychological stressors.

In summary, my findings add and contributes to the existing literature by further emphasizing the negative impacts that chronic understaffing and increased workload can have on HCWs in LTC homes. Specifically, I found that these factors can lead to strained relationships among HCWs, which can ultimately impact their work. Additionally, I found that the relationship between HCWs was profoundly disrupted and reshaped during the COVID-19 pandemic, as well as a relationship between a stressful work environment relating to absenteeism stemming from staffing shortage, miscommunication, and tension among HCWs. It is also noteworthy that my research focused on LTC home specific context, which can also be applied to the Alberta context, as well as other contexts. My research has highlighted the mental health impacts of working in LTC homes that may not have been addressed in prior literature, such as the impact of strained relationships among HCWs.

Effects of Variability and Fluctuations on HCWs in LTC homes during the Pandemic

The onset of the COVID-19 pandemic witnessed the implementation of protocols and isolation measures across the globe to curb and control the spread of the disease (WHO, 2020). The implementation of these measures meant that HCWs had to ensure they carefully followed

the guidelines of donning personal protective equipment (PPE), and always utilizing the PCRA before attending to suspected or confirmed cases and isolated residents. Though these measures were documented to be effective, HCWs had a different experience as to what such protocols meant to them. Participants in this study claimed that these measures which led to additional workloads, variability and fluctuations, the fear of the unknown, and fear of being infected all led to psychological stress they encountered. Previous literatures suggests that HCWs often experience an array of negative effects as a result of protocols and measures implemented during previous public health epidemics such as influenza outbreaks (Saragih, 2020). Other literature reports that HCWs had to deal with the cascade of psychological and physical stressors during a public health crisis (Cabrera, & Perez, 2020). During the SARS outbreak of 2003, HCWs experienced the psychological effects of the necessary infection control practices and protocols put in place to manage the spread of the disease (Maunder et al., 2006; Shaw, 2006). These psychological effects resulted in heightened levels of depression, stress, and anxiety as indicated by participants. The mental health of HCWs in China during the early outbreak of the COVID-19 disease in 2019 was also negatively affected due to the increased workload and the need to strictly adhere to the laid down protocols and isolation measures (Chen et al., 2020). Due to such measures, literature reports that HCWs experienced varying degrees of depression and anxiety. These same negative effects associated with strictly adhering to protocols and measures to curb and reduce the spread of a viral disease was also experienced in HCWs tending to Ebola patients (Jalloh et al., 2018). In essence, within the array of research, it is evident that protocols implemented to manage the spread of a viral disease often causes psychological and mental health challenges for HCWs on the frontline (Hossain et al., 2020). These general trends were also seen in our study, which aligns with other research studies.

In summary, though the protocols and isolation measures implemented to curb and control the spread of COVID-19 have been documented to be effective, they have also caused psychological and mental health challenges for HCWs on the frontline. The implications are that HCWs need to be supported to better manage the psychological and mental health effects of these protocols and isolation measures. Additionally, it highlights the need for increased research into better protecting healthcare workers from the psychological and mental health challenges caused by protocols and isolation measures.

Devastating outcome of COVID-19 spread in LTC Homes and the consequential rise in residents death

Participants in this study commonly noted experiencing stress due to the significant and sharp rise in resident death rates as frontline workers with confirmed COVID-19 residents in LTC homes. During the pandemic, HCWs regularly observed the suffering and deaths of infected COVID-19 patients (Pappa et al., 2020). Often, HCWs had to watch infected patients suffer to death with little or no help coming, which negatively affected staff members' psyche (Galehdar et al., 2020). Such exposure and experience further exacerbated the psychological stressors that these HCWs encountered (Cheung et al., 2020; Labrague & Santos). Another common response by some participants during this study was related to the many outbreaks of the COVID-19 crisis. This meant HCWs had to attend to the needs of suspected and confirmed cases of COVD-19 disease. As mentioned in other research studies, these COVID-19 outbreaks made frontline HCWs very vulnerable to temporary and possible long term psychological stressors associated with fears of contracting the diseases and being isolated themselves (Mohsin et al., 2021). Possible outcomes included facing stigmatization and being rejected by the general populace in their locality (Sakib et al., 2021; Temsah et al., 2020). Some participants in this study also echoed the feared that *they* may be infected, and as such infect their loved ones with

other underlying medical issues. Such concerns and fears towards infecting family members are shown to be common responses in some other published studies (De Kock et al., 2021). Also, Cai et al. (2020) found that fears and concerns about close-knit loved ones was one of the main stressors among HCWs aged 31 to 40 years old. Some published literature reported how outbreaks related to a global public health crisis negatively impacted the HCWs in such a working environment (Hewlet et al., 2005; Kim, 2018; Liu et al., 2019). These outbreaks were another form of stressor that took the best out of them. Emerging studies indicate how HCWs experienced some poor mental health outcomes associated with the fear of the COVID-19 outbreaks in their LTC workplace (Labrague & Adelos Santos, 2020; Havaei et al., 2021).

In summary, the findings of this study add and contributes to existing studies by highlighting the psychological stressors experienced by frontline HCWs in the LTC homes during the COVID-19 pandemic. HCWs in this study experienced a range of stressors during the COVID-19 pandemic, including witnessing the suffering and deaths of infected residents, and fear of infecting themselves, and their loved ones. Additionally, the implication of this pandemic fear can have a negative impact on their mental health and wellbeing, which can lead to a variety of other mental health challenges that may be distressing and difficult to cope with. Such stressors had an adverse effect on the mental health of HCWs, which was also reported in other research studies. Although participants in my research study did not report grief from observing their residents in distress and passing away, it is worth noting that HCWs may have endured some form of trauma that could potentially present as post-traumatic stress disorder (PTSD) stemming from the circumstances. This emphasizes the importance of providing additional care for the psychological well-being of HCWs during public health crises to reduce their psychological anguish. Furthermore, HCWs should be encouraged to seek professional help if

they feel overwhelmed, and employers should endeavor to provide the needed support and resources to help them better manage their COVID-19 pandemic fears.

Leadership responsibilities in LTC homes for HCWs during the COVID-19 Pandemic

Unsupportive management associated with poor leadership, lack of guidance, and communication gaps towards the frontline HCWs is another pandemic stressor presented in this study. Some participants described how they perceived the leadership of their workplace failed to provide the necessary support they required during such a global health crisis, which became a stressor to them. For this study "*supportive management"* by some participants in this research study was expressed as being appreciated, recognized, and visibility for the efforts they (participants) made during the COVID-19 pandemic period from the management of their workplace. These participants suggested that their management show more appreciation for their work in order to increase the sense of satisfaction and recognition among the employees. According to the feedback from the participants, increased representation and visibility of management had a positive effect on their morale. They felt valued when they had the opportunity to express their concerns and first-hand experience to their managers. Furthermore, words of encouragement and thank you gestures such as buying coffee for them were considered important forms of support that helps elevate their moods and confidence.

Previous research studies have implied how a lack of support during a public health crisis place significant pressures on frontline HCWs (Gamble et al., 2022; Rhéaume et al., 2021). One study indicated that during the 2003 SARS outbreak, frontline HCWs reported a lack of support from the leadership of their workplace, which ultimately resulted in severe psychological and acute distress (Tam et al., 2004). During this study, some participants felt that having the much-needed support and direction from their workplace leadership would have served as a significant

conduit to their psychological well-being. Some studies have reported that a supportive leadership, at the individual and organizational level, usually results in positive outcomes in the mental health of frontline HCWs (Barry et al., 2019; Franzosa et al., 2018; Nielsen et al., 2008; Zhang et al., 2012).

In conclusion, the importance of supportive leadership from workplace management for frontline HCWs during a public health crisis cannot be over-emphasized. In addition, employees in these LTC homes should receive the necessary support from professional development to access to mental health services, and recognition or rewards to ensure HCWs have the necessary support and guidance from their workplace leadership. Without this support, frontline HCWs can experience psychological distress and other negative impacts on their mental health. Furthermore, findings from this study extends and contributes to previous studies concerning pandemic stressors. Although previous studies specifically revolved around acute care settings, and some in LTC home settings. However, the findings from the acute setting might be transferable in the sense that both acute and LTC settings have the potential to be high-stress environments due to the dangers of the pandemic. In particular, both settings have the potential for a high rate of infection and the associated risks, such as the spread of the virus and the need for additional safety and precautionary measures. LTC homes may be distinctly different in that the individuals in these settings are more vulnerable due to their age and/or existing health conditions. In addition, LTC homes may be more likely to experience a prolonged period of stress and anxiety, both for the residents living in these homes, and the HCWs who are providing care.

Implications for Mental Health of HCWs

In this study, most participants expressed that they did not encounter significant mental health issues at work pre-pandemic, although they still experienced some form of workplace stressors. Most claimed to have had reasonably good mental health in contrast to their mental health experiences since the onset of the COVID-19 pandemic. The result of their state of mental health before the pandemic are inconsistent with previous literature. In essence, this study may indicate that the mental health of HCWs is context specific as the HCWs interviewed in this study responded to having good mental health pre-COVID-19. However, since the onset of the COVID-19 pandemic, some HCWs in this study report significant mental health issues. Some studies suggest that the mental health status amongst the Canadian nursing teams has always been a major issue that interfered with their ability to work effectively (Shields & Wilkins, 2006). A recent study shows a higher number of HCWs (nurses) in British Columbia expressed various mental health issues from anxiety, depression, emotional exhaustion, and PTSD (Havaei et al., 2021). In essence, findings from my study into the mental health of certain HCWs further expand the evidence surrounding the mental health outcomes they experience by examining pre-existing and pandemic-induced stressors and their coping strategies. The COVID-19 pandemic presents a unique and difficult challenge for healthcare services, and consequently, the responses of institutions and individuals may be equally distinct.

This study has demonstrated that some HCWs in LTC homes during COVID-19 experienced an increase in psychological issues such as being emotionally stressed and burned out. Being emotionally stressed while working in a LTC home during the COVID-19 pandemic was a negative mental health outcome which some participants spoke about. Many interviewed participants described the stress level at their place of work as going from manageable to

overwhelming during the COVID-19 pandemic, leading to participants being emotionally stressed and burned out. In line with findings of this study, several other studies reported higher levels of emotional distress and burnout among HCWs during the COVID-19 pandemic (Barello et al., 2020; Guixia & Hui, 2020; Jalili et al., 2021). It is important to consider the psychological impact experienced by HCWs working during a global public crisis (Dewey et al., 2020; Greenberg et al., 2020). HCWs typically endure mental and physical stress at their respective worksites (Wijdenes et al., 2019); however, the chronic understaffing during COVID-19 exacerbated their emotional distress and burnout. Therefore, the COVID-19 pandemic has exposed systemic issues in the LTC sector with many LTC homes facing understaffing, inadequate protective equipment, and limited access to testing. This has had a detrimental impact on the psychological health of HCWs in the LTC sector. This highlights the need for greater investment in healthcare infrastructure in this LTC sector, staffing, and adequate resources to support HCWs' mental health during this period of crisis. Moreover, it is also essential to reduce the workload of HCWs in order to prevent or reduce stress. Furthermore, it is important for healthcare organizations to provide the necessary training and education for HCWs to handle their emotions and stress effectively.

Aside from being emotionally stressed, participants also started experiencing burnout while working during the pandemic. HCWs working in LTC homes during the pandemic had to interact daily with different residents including those with potential and confirmed cases of COVID-19. The word "burnout" is attributable to an individual's reactions to chronic stress involving direct interactions with people (Freudenberger, 1974). Typically, burnout experiences are characterized by increased levels of emotional exhaustion, depersonalization, and an overwhelming sense of diminished personal accomplishment (Callahan et al., 2018; Maslach &

Jackson, 1982). Existing literature demonstrates that risk factors for such burnouts in HCWs are increased work volume, stressful professional experiences, and reduced quality of work (Murali & Banerjee, 2018). Experiences of burnout in HCWs are often associated with substance abuse, increased risk for medical errors, depression, and anxiety (Kumar, 2016; Lapa et al., 2017; McCain et al., 2018).

In summary, the implications of what this burnout mean to these HCWs are significant, as it can lead to decreased job satisfaction, increased absenteeism, and turnover, and decreased quality of care. It is essential that the stakeholders, decision makers and leadership of the LTC sector take steps to reduce burnout by reducing work-related stressors such as chronic understaffing and increased workloads. This can be achieved through strategies such as hiring more staff, providing adequate financial resources and support, and engaging in open communication between staff and management. It is also important for HCWs to be aware of the signs of burnout, such as emotional exhaustion and depersonalization, and to take proactive steps to manage their workloads and stress levels. Since the data collection for this research was conducted, it is likely that the situation has changed in some way. For example, the COVID-19 pandemic has put increased pressure on HCWs, leading to an even greater risk of burnout. This highlights the need for LTC homes to ensure that HCWs have the necessary resources and support they need to cope with additional stressors, and to minimize the risk of burnout.

My findings also indicates that a degree of *anxiety and panic attacks* was expressed by some participants. This findings showed how being anxious and fearful of the dreaded COVID-19 virus greatly affected HCWs. Some participants reported how the fears and anxiety they encountered while working as frontline HCWs in a LTC home during the pandemic resulted in panic attacks. Many of them witnessed the medical experiences of their colleagues and residents

with confirmed cases and became frightened and anxious. While some experienced anxiety and panic attacks, others perceived that they were experiencing depression while working as HCWs in LTC homes. Previous research has shown how epidemics can cause severe psychological stressors in frontline HCWs. As observed, the findings from this research study are in line with HCWs' experiences in previous public health crises of the H1N1 influenza, Ebola, SARS and MERS-Cov (Galehdar et al., 2020). During these epidemics, HCWs developed mental health concerns including anxiety, depression, fear, and a host of other mental health issues (Chung et al., 2005; Kim, 2018; Khalid et al., 2016). In this research study, some participants who experienced fear and anxiety did so due to fear of being infected by the virus, which is consistent with similar previous research studies (Mok et al., 2005; Shih et al., 20107). Working during such a fearful time escalated their anxiety, which in turn exacerbated mental health symptoms leading to the aforementioned panic attacks. Consistent with a previous research study, Ornell et al (2020) reported that the "pandemic fear" of the COVID-19 virus increased the anxiety and stress symptoms of HCWs, resulting in numerous exacerbated symptoms of mental distress.

In summary, the pandemic fear of the COVID-19 virus may have resulted in a negative impact on the mental health of HCWs which could lead to higher levels of stress and anxiety. If left unmanaged, this could lead to worsened long-lasting mental health issues for HCWs in LTC homes. Additionally, it is important to recognize that mental health issues may arise after the pandemic has ended. As such, HCWs should be supported during this time, ensure that they can address and manage any long-term issues that may arise. Such resources to manage and address these panic attacks and other mental health challenges amongst HCWs could include access to mental health professionals such as psychologists, and psychiatrists who can provide them with the necessary counseling and therapy sessions. Also support groups and peer to peer networks

where these HCWs can share their experiences and feeling with others experiencing similar situation may be beneficial. Furthermore, it is important to understand that the long-term effects of the pandemic on HCWs' mental health may not be immediately evident, and so healthcare providers should remain vigilant in monitoring for any signs and symptoms of mental distress. Though these issues may have occurred, it is possible that the mental health stressors have lessened at this point in the pandemic, as levels of fear and anxiety may have decreased due to improved understanding of the virus and its impacts. As more treatments and vaccines become available for the virus, HCWs may feel more confident in protecting themselves and their residents from the virus.

Another factor associated with anxiety that was echoed by some participants was the higher-than-average number of resident deaths that occurred while they worked. The findings from this study indicated that HCWs were subjected to psychological stressors associated with the deaths of their residents. These psychological stressors were presented in the form of anxiety, fear, and panic attacks. Earlier studies suggest that during a public health crisis, deaths of residents usually creates a moral distress that in turn negatively affected the mental health of HCWs (Galehdar et al., 2020). Another study also indicates the concept of death and anxiety as a multidimensional construct involving the emotional, experiential, and cognitive aspects of humanity (Peterson et al., 2010; White & Coyne, 2011). The nursing practice being the heart and soul of healthcare was challenged during the early stages of the pandemic leading to a variety of issues in these HCWs. HCWs workers facing such were subject to moral distress and compassion fatigues (Silverman et al., 2021).

In summary, findings of my current study regarding fear and anxiety associated with the concept of death extends and contributes to some previously published research studies. The

results of my findings also corroborate with prior studies indicating that, during a public health crisis, the mortality of residents can cause some form of psychological issues for HCWs.

Some participants started feeling depressed while working during the pandemic. These individuals attributed their detectable depression to chronic understaffing at their workplace and being socially isolated. The advent of COVID-19 made such mental symptoms of depression prevalent amongst interviewed HCWs. Previous research indicates that HCWs who are exposed to unfavorable working conditions such as understaffing during a public health crisis often experience depression (Magnavita, 2017). Further, earlier studies have reported an elevated rate of depression specifically associated to the COVID-19 crisis, in HCWs around the world (Dunnell et al., 2020; Greene et al, 2020; Lai et al., 2019). These studies attributed this increased depression to the growing stress associated to workplace stressors unique to the demands of COVID-19 (Dunnell et al., 2020; Greene et al, 2020; Lai et al., 2019). As studies reported, prior to the onset of the pandemic, HCWs already experienced some mental and psychological stressors as evidenced by a growing body of knowledge related to incidences of stress, burnout, depression, and other issues in many countries (Carrier et al., 2018). However, research participants in this study reported that they did not experience certain mental and psychological stressors prior to the onset of the COVID-19 pandemic.

In summary, to support HCWs recovering from the psychological impacts of the pandemic, the LTC homes can implement measures to reduce workplace stressors, such as providing sufficient staffing resources and creating an environment where HCWs' mental health is a priority. Psychological practices and practitioners can provide comprehensive assessments and interventions for HCWs to aid their recovery, including therapy, psychotherapy, trauma-informed therapy, cognitive behavioural therapy (CBT), mindfulness, relaxation techniques, and

other evidence-based modalities. Additionally, psychological professionals can equip HCWs with coping skills to manage stressors in their current work environment. Lastly, it is crucial for LTC homes that employ HCWs to have access to psychological resources and services to ensure their employees feel supported. Other psychological stressors that interviewed participants experienced include being mentally drained and feeling lonely and sad. Another study reported how HCWs attending to SARS patients in different countries experienced chronic levels of workplace stressors that led to elevated rate of depressions (Su et al., 2007; McAlonan et al., 2007). Findings from this research study align with previous studies on how infectious disease epidemics are directly related to the psychological stressors that HCWs experience while working. During the COVID-19 pandemic, interviewed participants also indicated other mental health issues such as being mentally drained, sad, and lonely, which workers related to being understaffed and having an increased workload. The sadness and loneliness were also alluded to as being isolated while working during the pandemic. During the MERS and SARS epidemic outbreaks, Hall et al., 2003 and Kim, 2018, noted that nurses experienced loneliness. Previous studies have shown loneliness is a significant predictor of exhaustion in HCWs (Karcz et al., 2022). Ofei-Dodoo (2020) also reported an association between loneliness and emotional exhaustion, while others have also found a relationship between loneliness and burnouts in HCWs (Rogers et al., 2016). Being lonely at the workplace often affects the efficiency of HCWs and their work relationships (Karcz et al., 2020). With the pandemic workplace stressors identified earlier in this chapter, an array of evidence indicating a relationship between workplace stressors and psychological stressors exists. As suggested by participants in this study and earlier studies, it appears that loneliness and being emotionally stressed go hand in hand during a global health crisis.

Coping Strategies

My findings showed that many participants were able to employ some coping strategies to continually work as HCWs during the pandemic. Most participants utilized individual strategies to address their perceived mental health challenges during the pandemic. Conversely, certain coping responses discussed in this section have been shown to increase confidence, and a sense of total control to manage identified psychological effects due to the pandemic. Litman (2006) also identified some adaptive coping skills to include suppression of competing activities, acceptance, religion, positive re-interpretation, and growth, and seeking social support.

As previously discussed in Chapter 5, three themes were identified as the coping strategies that participants utilized during the pandemic. These themes include (a) Behavioural coping responses, (b) Social coping responses, and (c) Internal and spiritual coping responses.

Behavioural coping responses

Behavioural coping responses are strategies HCWs utilized during the pandemic that involved changing existing behaviours or adopting or learning new behaviours to manage stressful events, crises, conditions, or situations considered distressing (Carr & Pudrovska, 2007).

As the pandemic progressed and HCWs had to continually face the many work-related pandemic stressors resulting in come mental health concerns, HCWs had to develop resilience towards these pandemic stressors. Resilience in this context was how HCWs could resist the disruption of normal functioning in the face of a distressing event by anticipation and preparation (Chan et al., 2006; Maunder et al., 2008). Some HCWs could resist additional work by enforcing their limits. As Josh Nash (2022) puts it, being aware of one's limits and capacity is pertinent to a thriving relationship and a healthy, balanced lifestyle. Some studies have demonstrated how

setting and enforcing one's limits by setting boundaries and declining additional work served as a coping strategy for these workers (Maresca et al., 2022). Hence, HCWs must know and understand their limits, capacity, and resiliency to decline additional work as a good coping strategy.

In summary, though the findings from our study indicate that some participants felt morally or legally required to work, this strategy of declining additional work might have provided these HCWs some relief in specific situations, but it does not address the systemic issues around workplace stress and LTC homes staffing. Additionally, relying on individual-level responses to the problem can be risky as there are potential repercussions for the HCWs in terms of job security and employment opportunities. The current system may not adequately support HCWs in identifying and enforcing their boundaries, which is why systemic change is needed in the LTC sector if HCWs are to be properly supported. In essence, this strategy is particularly helpful during times of high stress such as the pandemic as this may allow workers have a better work-life balance and reduce their anxiety concerns over exposure to the virus.

Another typical response in this study by participants was utilizing their accrued vacation days and in some cases, using their sick leave time. A study also demonstrated how HCWs must practice a work-life balance, using their vacation and sick days (Hansen et al., 2021). From this study, it is observed that HCWs who took time off to attend to themselves were energetically refreshed, better prepared, and suited to do the job at hand as frontline HCWs. Another study reports that taking time off work was considered crucial to their rehabilitation and the maintenance of their workability (Figueredo et al., 2020). Taking time off and gradually returning to work is also demonstrated to be a multidimensional process solely influenced by psychosocial factors as opposed to medical factors (Chu et al., 2019; Fiabane et al., 2012).

In conclusion, though taking time off work was a coping mechanism for these HCWs, it appears that the psychosocial process of taking time off and returning to work may not be solely determined by medical factors but also by the context of the work situation. In particular, during times of crisis and chronic understaffing, it can be difficult for individuals to take vacation time without feeling guilty or worrying about whether it would be seen as acceptable by their colleagues or supervisors. Additionally, though taking time off during such a time may have been frowned out, these HCWs in this study had no choice than to take time off to help them properly cope with the stressors they experienced.

The COVID-19 pandemic became a global public health crisis that had many individuals and HCWs searching for answers and information concerning the viral disease from different sources. The inconsistent and rapidly changing information and knowledge about the transmission and contagion only increased the pandemic stressors these HCWs experienced (Chung et al., 2005; Holroyd & McNaught, 2008; Ives et al., 2009; Liu & Liehr, 2009). As such, HCWs in this study began to personally search for a credible and suitable source of information that helped them manage the pandemic psychological stressors they experienced. A study from China demonstrates how HCWs during the COVID-19 pandemic, in a bid to manage their psychological stressors, sorted knowledge through media platforms such as WeChat (Huang et al., 2020). However, this research study concluded that most of these social platforms only generated arbitrary, overabundant, and often false information, thereby leading to further exacerbation of the psychological stressors HCWs experienced (Merchant & Lurie, 2020). Though participants from this study stated how properly gathering credible information about COVID-19 assisted them in managing their pandemic psychological stressors, it is imperative

that HCWs pay attention to obtaining the right and credible information related to a given public health crisis.

In conclusion, though these HCWs sought to obtain the correct information about the pandemic, the implications for these workers, and family members gaining access to inadequate and unreliable information during a pandemic can be far-reaching. It is imperative for the stakeholders, decision makers and leadership of LTC homes to provide HCWs with the necessary training and education on how to access verified, up-to-date information about the disease. This will help them make informed decisions and reduce the risk of misinformation on social media platforms which can lead to increased stress. Furthermore, at the provincial level, the government should also provide guidance and resources to help HCWs manage their pandemic-related psychological stressors. Additionally, it is important to develop public education initiatives that address the widespread of false or inaccurate information in order to better protect communities and individuals from the dangers of pandemic disinformation. Finally, healthcare managers should be aware of the psychological stressors HCWs face and provide support in addressing these issues.

Participants referenced how adopting healthy lifestyle behaviours in order to feel well and experience a sense of control over their health was a coping response to them. Some explained how healthy eating, sleeping, exercise, and even being vaccinated against COVID-19 were helpful behavioural coping responses to pandemic stressors. Previous studies have indicated how a balanced and habitual lifestyle directly impacts the mental health of HCWs (Jahrami et al., 2020; Ferini-Strambi et al., 2020). Further, evidence-based studies acknowledge that a well-balanced diet is as important to mental health as is to physical health (Davis et al., 2015). HCWs also reported exercising to help manage their mental health during the pandemic.

Some studies report a relationship between exercising and positive mental health outcome (Malhi & Byrow, 2016; Larcom, 2021; Preiato, 2022; Raglin, 1990; Sutton, 2022). Adopting a healthy lifestyle as a behavioural coping response during a public health crisis is considered essential as a lack of it during such moments could prove to be detrimental to HCWs (Mills et al., 2015). Also, a study has indicated that not utilizing effective self-care during events such as the COVID-19 crisis increases the risk of maladaptive coping strategies (Lloyd & Campion, 2017). Most findings on the use of these coping mechanisms aligns with previous research. Some participants reported how sleeping was a good coping strategy for them in alleviating their perceived mental stress. One study showed how sleeping was very important in preventing burnout and promoting personal resilience (Lapa et al., 2017; Kelly et al., 2020).

In essence, the interviewed participants in this study reported that their work schedule and the public restrictions created conditions for healthy behaviours. Since these HCWs had to work long hours and endure the many stressors they faced at work. The structure of their work impacted their ability to be well by making it more challenging to prioritize health-related activities such as exercise, healthy eating, and getting enough sleep. This was further compounded by limited access to health resources and insufficient support from their workplaces. This speaks to the importance of developing systems that prioritize the social determinants of health, including adequate working conditions and resourcing of healthcare services so that HCWs can care for their health while caring for others. It is also an important reminder of the need to consider individual symptoms of a public health crisis, such as burnout and exhaustion, to prevent the onset of physical and mental health challenges.

Being vaccinated was the highest and most common response from participants as their behavioural coping strategy. Most participants stated how drastically their perceived mental

health challenges associated with the pandemic were alleviated when they received their first dose of the COVID-19 vaccine. This coping strategy has been reported in previously published literature. A report indicated that individuals who got vaccinated between December of 2020 and March of 2021 reported a decrease in their mental health distress (Francisco et al., 2021). Another study in Bangladesh reporting the psychological outcomes and associated factors amongst vaccinated and unvaccinated HCWs found that compared with unvaccinated HCWs, vaccinated HCWs experienced lower prevalence of mental health challenges from anxiety, depression, and post-traumatic stress disorder (Alam et al., 2022). These studies reflect how the findings of this research study are in line with several published studies that recognize "being vaccinated" as a good coping strategy for the many psychological stressors associated with the pandemic.

In conclusion, the findings of this research study suggest the potential for using vaccinations as an effective tool to help reduce mental health challenges associated with the pandemic. Additionally, it is important to note that supportive effects of vaccination on mental health may not be lasting and individuals should be encouraged to seek help if necessary. Moreover, vaccination can be used in conjunction with other interventions, such as psychosocial support, to further aid individuals in managing their mental health. This also serves to emphasize the importance of increasing the vaccine uptake to ensure a better mental health outcome in HCWs.

Social coping responses

The COVID-19 pandemic has had a significant impact on the ability of individuals to be socially connected. In the early stages of the pandemic, social distancing regulations, lockdowns, and travel restrictions made it difficult for people to connect in person. As the pandemic

progressed, these restrictions have been somewhat relaxed, but virtual communication techniques (e.g., video and phone calls, etc.) are now more commonly used to stay connected with friends, family, and coworkers. Additionally, many people have reported feeling isolated due to their limited ability to engage in physical activities or meet other people. However, as the public health measures are slowly relaxed, people are once again able to return to their usual day-to-day activities and build social connections; thus, the feelings of isolation may be alleviated.

Participants in this study expressed utilizing social coping responses as a strategy which greatly helped manage their many psychological pandemic stressors. Previous literature has reported how social coping responses are very effective for coping with stressful events, including connecting with friends, spouse, family, co-workers, and the community as a whole (Kim et al., 2008). For example, participants presented friends and family as a major coping tool in managing their perceived mental health. This is evident in previous studies that reported how friends and family was a common coping tool in form of a social support in managing the many identified mental health issues (Louie et al., 2020; Sun et al., 2020). Another previously published study specifically indicated how friends and family were "very important" to HCWs in managing their perceived psychological stressors (Cai et al., 2020). Another evidence-based study suggests the social coping response is crucial in managing a variety of psychological stressors (Babore et al., 2020). Furthermore, a systematic study indicates how nurses utilized the social coping response to help address growing mental health stressors they encountered during the COVID- 19 pandemic (Ali et al., 2020; Cai et al., 2020; Gunawan et al., 2021; Hu et al., 2022; Zhang et al., 2020). In essence, the findings from this research, as well as other studies, suggest that utilizing social coping responses such as friends, family and co-workers are essential strategies for managing stressors in the COVID-19 pandemic context.

Finding happiness and fulfilment as a support system was also reported also as helping participants through the pandemic. Although these can also be considered as coping strategies or feelings that help these HCWs cope, however, this can also be seen as support systems in a broader sense. This is so because the support that HCWs provide to their residents can give them a sense of purpose and can bring them feelings of happiness and fulfilment, which can help them to manage the psychological impact of the pandemic. Some HCWs stated that though they experienced many psychological pandemic stressors, they choose to be happy and fulfilled while taking care of their residents. Previous studies have indicated how workplace happiness is regarded as a social coping response with a positive mental outcome in workers (Kun & Gadanecz, 2019). Another study also indicated a relationship between self fulfilment and orientation to happiness as a social coping response at the workplace in the face of a stressful event (Tandler et al., 2020).

In conclusion, based on the findings, it is recommended that LTC managers take action to ensure that their employees are supported and able to develop social connections in order to better manage the psychological stressors of the pandemic. This could include encouraging more frequent communication between staff members, offering opportunities for staff to get together (virtually or in-person when possible), providing resources and support to help employees build meaningful connections, and emphasizing the importance of social connections to overall wellbeing.

Internal and spiritual coping responses

Internal and spiritual coping response is another common tactic to effectively deal with participants' perceived mental health issues. Internal and spiritual coping response has been identified as an important tool to buffer against stressful events (Krok, 2008). Some studies in

the wake of the COVID-19 pandemic have demonstrated how a spiritual coping response was very significant in reducing the psychological stressors HCWs encountered (Algahtani et al., 2022; Holmes et al., 2020; Thomas and Barbato, 2020). Other literature also suggested a correlation between spirituality and a positive mental outcome. For example, a systematic study based on pre-COVID-19 pandemic indicates a positive inverse relationship between spirituality and clinical depression, where spirituality as a coping mechanism moderately reduced the symptoms of depressions (Brama and Koenig, 2019). A study conducted during the COVID-19 pandemic examined how spirituality in form of Islamic practices served as a coping mechanism that provided mental health relief and support during the pandemic (Fardin, 2020).

In essence, the findings suggest that spirituality in the form of internal and spiritual coping response is an important tool for HCWs to effectively manage stress during COVID-19 pandemic. The findings also extend and confirm previously published studies which indicate a positive relationship exists between spirituality and clinical depression, suggesting that spirituality as a coping mechanism may moderately reduce the symptoms of depression. Other studies have also found a relationship between spirituality and positive mental outcomes, suggesting that spiritual practices can provide mental health relief and support.

The majority of interviewed participants expressed depending on prayers and often mentioned God during the interview process. This aligns with previous studies; spiritual and religious practices have been identified as tools utilized by HCWs during an infectious disease outbreak. This was evident during the Ebola outbreak, where HCWs in Liberia depended on several coping mechanisms, including religion (Rabelo et al., 2016). Other studies have also suggested that internal and spiritual coping responses offer cognitive and emotional tools to deal with uncertain events as well as to overcome any known or unknown adversity (Freire &

Moleiro, 2015; Koenig et al., 1992; Salts et al., 1991). Other published literature has proposed that an internal and spiritual coping response was a form of religiosity that is positively related to mental health issues (Chen et al., 2020). Many more studies have found a relationship between spirituality and mental health issues in the face of COVID-19 and other infectious disease outbreaks. (Al Eid et al., 2021; Fatima et al., 2020; Kim et al., 2021; Kowalczyk et al., 2020; Lucchetti et al., 2020). However, a pattern was observed in the demographics that utilized this coping skill in this study. Most of the interviewed participants who utilized the internal and spiritual coping strategy were of African and Asian descent. With an array of literature suggesting a link between mental health and spiritual practice, it is evident that the findings from this study align with previously published research.

In summary, the findings of this research relating to praying to God adds new insight by demonstrating an internal and spiritual coping strategy was observed more often among those of African and Asian descent, in contrast to those of Caucasian descent. This is a noteworthy observation for further discussion in the near future, as it could suggest potential disparities related to race/ethnicity in accessing spiritual practices as a form of mental health support.

This research study also observed how some participants utilized the art of reflection and journaling as an internal and spiritual form of coping with the pandemic's many psychological stressors. Farrel (2004) described reflection as a holistic approach revolving around the intellectual, cognitive, metacognitive, spiritual, moral, and emotional aspects of coping. Dimitroff et al. (2016) referred to journaling as a record of personal reflections, events, and evolving thoughts that are the foundation for creativity, understanding, and spiritual guidance. Some studies allude to journaling and reflection as dynamic coping tools of self-discovery and expression closely associated to spirituality (Wiggins, 2011; Winfrey, 2009). In this study,

several participants utilized this form of internal coping response to manage the psychological stressors that they experienced and expressed in this study. A study conducted in 2011 indicated how this coping response was used to reduce stress and as a way to release negative emotional thoughts and feelings associated to stressful events (Ramirez & Beilock, 2011).

In conclusion, the use of journaling and reflection as an internal and spiritual coping response to the stressors that these HCWs faced appeared to be useful. Using this coping tool appears to help HCWs gain insight and better understanding and meaning into life during the pandemic as frontline workers. Finally, the findings from this study aligns with other studies as it indicates that journaling and reflection are essential tools for HCWs to cope with the stress of the pandemic. It can provide an outlet for stress relief, help them gain insight and better understanding into life during the pandemic as frontline workers, and lead to more positive and progressive coping responses.

Acceptance of the realities of COVID-19 was another way through which these HCWs managed to cope with their pandemic stressors. A relationship between spirituality and accepting realities of a given event exists, as they both involve personal beliefs and values. Some HCWs in this study were able to manage and cope with these psychological stressors by accepting and largely adapting to the stressful situations that came with the COVID-19 pandemic. This coping strategy was also described and presented as a useful tool in managing the stressors that arose with the COVID-19 pandemic in some published studies (Akkuş et al., 2021). According to a 2017 study by Gorg et al (2017), accepting the reality of an event or circumstance is presented as a coping mechanism relatable to an internal and spiritual coping response. In conclusion, HCWs in this study were able to manage and cope with psychological stressors caused by the COVID-19 pandemic by accepting and adapting to the stressful situations. This extends and confirms

with previously published studies as a useful tool in managing pandemic stressful situations and circumstances. Therefore, as corroborated by other published reviews, the implication of this is that HCWs are able to utilize acceptance and adaptation as a means of managing their psychological stress during the COVID-19 pandemic. Finally, to support and promote the mental wellbeing of HCWs, managers should understand the coping process and the use of models of psychological flexibility.

Confirmed assumptions.

The study results are consistent with my pre-supposition that HCWs had mental health issues in the beginning of the COVID-19 pandemic. Also, I had assumed that HCWs had mental health difficulties before the pandemic, but this study highlighted a fresh perspective of HCWs in this study reporting that they had positive emotional wellbeing before COVID-19. Put simply, the pandemic gave rise to the psychological health challenges that HCWs across LTC homes in Southern Alberta confronted.

Strengths and limitations of the study

It is important to recognize that a small sample qualitative study does not necessarily provide an ideal basis for asserting generalizable or transferable findings. In this case, due to the varied backgrounds of the HCWs, there may be potential for transferability; however, rather than making such claims, this research focused on their experiences in a precise and thorough manner. This helps to ensure that the study is seen as a valuable representation of the HCWs at a particular point in time and can provide insights into their lived experiences. Though the sample size for this study was small, this research captured the diverse views, and perceptions of each interviewed participant from four different LTC homes in three cities within Southern Alberta.

Being qualitative in nature, the findings are *in-depth* representations of HCWs' experiences from registered nurses, licensed practical nurses, healthcare aides, and recreation therapists during the COVID-19 pandemic in LTC homes. Though women dominate this field of work, it would have been interesting to capture the views, and perceptions of men working in this field. Another limitation is that the sample comprised participants with higher educational backgrounds. Ten of the 11 participants possess a bachelor's degree, while only one holds a post-secondary diploma.

The inclusion of male HCWs and individuals with varying degrees of educational backgrounds could have further contributed to the phenomenon being explored. With the second most mentioned coping strategy being internal and spiritual coping, it was evident that many participants were Christians, which in a way is also a limitation to this research study. If this research study only presented the views, perceptions, and voices of participants who were of the Christian faith, it thereby unintentionally excluded individuals with different religious and spiritual belief systems and backgrounds.

The third limitation of this research study centers on how the data were collected. Due to public health restrictions on movement and social distancing, data were collected via a virtual platform – Zoom. It would have been beneficial to have a face-to-face sit-down data collection because, it would have provided me with the opportunity to have a more natural and interactive conversation with the participants, allowing for more in-depth and open-ended conversations. It would also have enabled me to pick up on subtle nuances in the conversation that may not have been as apparent in a virtual setting. Virtual interviewing may have influenced the responses of some participants who were not familiar or comfortable attending interviews digitally. This is so because, I assume that some participants may have been more hesitant to share their opinions or provide honest answers to questions due to the lack of a face-to-face interaction. They may also

have been less comfortable with the technology, which may have resulted in decreased engagement during the interview process. Additionally, the lack of physical presence may have had an impact on the body language of the participants, which could have hindered communication and understanding during the interview. Also, not all participants turned on their video during the interviews, and as such made it difficult to observe nonverbal cues that may have been very important for meaning interpretation. Only the few participants who voluntarily had their videos on could have nonverbal cues observed. Another notable limitation was the brevity of some participants' responses to questions posed which may be due to the virtual interview, though I still managed to probe further to get detailed answers.

Finally, I believe that my role as a HCW working in a LTC home in Southern Alberta during the pandemic and my knowledge concerning the phenomenon being explored may have slightly affected the research process. Though my biases were already presented in Chapter 3, to minimize the impact of my role and preconceived knowledge of the phenomenon being explored, I endeavored to consistently exercise reflexivity throughout the research study process by being mindful of my potential biases as I actively worked to minimize their impact on the research. I also took extra steps to ensure that the data I collected was not influenced by my own preconceived notions of the phenomenon I was exploring. This included using various techniques such as participant observation, interviews, and to allow participants to provide their own perspectives without my influence. Furthermore, I conducted multiple rounds of data analysis to ensure that my interpretations were not biased by my own beliefs and assumptions. Keeping in mind the overall limitations of this study, the next section discusses recommendations for future research on the psychological stressors and coping mechanisms of HCWs in LTC homes during the COVID-19 pandemic.

Recommendations for future research

The findings and results from this research study can inform future studies seeking to identify the stressors and coping experiences of HCWs in LTC settings during a public health crisis (Mills & Birks, 2014). Since the advent of the COVID-19 pandemic, some research has been conducted on the psychological stressors frontline HCWs in LTC homes experience during an infectious disease crisis. Existing literature suggests that HCWs' mental health must be attended to during COVID-19 and other previous crises, but very few specifically discuss the mental health of HCWs in LTC homes. Based on this study, researchers and health care professionals may want to further explore the workplace stressors and psychological stressors frontline HCWs in LTC homes experience in any infectious disease outbreaks.

Based on the identified limitations of this research study, future research can build on this study by obtaining samples from the remaining four geographical zones in Alberta. These zones are the North, Edmonton, Central, and Calgary zones. I also recommend that future research on this phenomenon include men, individuals with other educational backgrounds, and individuals with different religious and spiritual backgrounds. I also recommend longitudinal research that affords adequate time with each participant to obtain further valuable data. I also recommend that additional data collection strategies, such as focus groups, be used for more diverse views and perceptions.

Knowledge Translation

The findings from this research study add to the body of knowledge in the academic sphere and serve as a source of local data for clinical establishments in the Southern Zone of Alberta. This data will inform stakeholders' decision-making on the mental health of HCWs in LTC homes for future infectious disease outbreaks.

To achieve effective dissemination of my research, I intend to make my findings available to the academic community and to scholarly journals such as the Journal of Mental Health and World Journal of Psychiatry for publication.

Findings from this study will also be provided to Occupational Health, Safety, and Wellness departments (OHSW), the leadership and handlers of LTC homes in Southern Alberta, and the provincial LTC policy advisory committee in Alberta. I will reach out to the respective leadership of OHSW departments through emails, webinar presentations, and executive summaries, describing the study and its findings. This study will provide evidence-based findings for policy considerations that revolves around equitable distribution of services, appropriate staff rotation, and adequate training and support, as well as OHSW for these LTC homes in Southern Alberta. Report of this study will also be shared with participants in this research that indicated to have a copy of the findings. Also, staff concerned within the LTC homes where the study was conducted will also get a copy of this research study sent to them through the participants in this study.

Conclusion

This study captured the voices of HCWs' views and experiences in LTC homes relating to their psychological stressors and coping strategies during the COVID-19 pandemic. Though existing literature primarily captured and primarily focused on the impact of COVID-19 on acute care settings, this study provided a detailed in-depth understanding of front-line HCWs' experiences in LTC homes. HCWs witnessed and experienced complex issues from chronic understaffing, unpredictability and constant change, and fear of risk and the unknown. All these workplace stressors during the pandemic exacerbated mental health issues for HCWs in LTC homes.

It is important to understand and recognize the adverse consequences of psychological stressors related to workplace stress during an infectious disease outbreak. Psychological stressors to HCWs in LTC homes may not be unique and harmful only to them, but also to their residents, the organization, and health care services in general. The leadership, handlers, policymakers, stakeholders, and decision makers of LTC homes are encouraged to actively support HCWs in LTC homes with poor working conditions. Providing LTC homes with enough resources for adequate staffing will be of utmost benefit as the increased workload and the short time ratio for a HCW to a resident will improve. Adequate resources supporting practical and visible workplace mental health strategies and policies are essential for a healthy working environment. In conclusion, the findings from this research study may be useful and policy and clinical practice in the LTC sector in the Southern Zone.

CHAPTER 7: RECOMMENDATIONS

The COVID-19 pandemic brought to light the negative effects it had on staff in this research study and what they did to overcome them. HCWs in this study went to great lengths to make sure their residents received the necessary care during a global health crisis. As previously mentioned, Chapter 5 of this research study examined the individual behaviours of HCWs and the response to the stressors that were identified. However, many of these problems at the macro-system level are being downloaded onto individuals and organizations without any acknowledgement that they arise from structural issues. As a result, this chapter proposes policy-level (macro) and practice-level (meso) suggestions based on the findings of this research. Many of the identified individual (micro) level stressors in this research study will be resolved by addressing the systemic stressors such as the chronic understaffing at the macro-level. Addressing systemic stressors such as chronic understaffing at the macro-level is key to resolving many of the individual micro-level stressors identified in this research study.. Doing so is essential in order to reduce the amount of stress experienced by those involved in the research. The recommendations provided in this research is context-specific that can be employed as part of a public health emergency special preparedness protocol should a public health crisis occur. In addition to traditional protocols, these recommendations may be beneficial in safeguarding overall public health of HCWs in this healthcare setting (LTC homes).

Recommendations for policy and practice at the macro and meso levels

The challenges of staffing levels during a public health crisis in LTC homes and potential solutions

Based on this research, it is clear that the current staffing ratio of HCWs to residents in LTC homes in Alberta may be inadequate and should be reviewed. In Alberta, the current staff

ratio to residents is at an average of 3.12 hours of direct care per LTC resident, which is below the recommended 4.1 hours in direct resident care (Canadian Health Coalition, 2018; Harrington et al., 2012). The pandemic-related issues only highlight the existing challenges present in the LTC sector. Therefore, I suggest and recommend that the relevant stakeholders, decision, and policy makers involved in the LTC sector should revise the staff ratio to residents by increasing the HCWs to ensure better safety, quality of care and improved quality of life for the residents living in LTC homes. This can be done by assessing if the current staffing levels are appropriate to provide adequate quality of care while ensuring HCWs' safety, productivity, and job satisfaction. They should also consider the impact of workplace stressors and contentions between nursing staff and other departments on the overall working atmosphere and the long-term effects on HCWs. Moreover, additional funding and better staff recruitment and retention strategies should be implemented to ensure that the current and future needs of the LTC sector are met. This will ensure that the LTC sector is adequately staffed and that the residents in LTC homes receive the highest quality of care. However, while providing additional funds, they should also consider the financial implications of increasing staffing levels or implementing revised LTC standards.

The reviews at the policy level should enable healthcare administrators in these LTC homes adequately assess their current workload and staffing levels and create strategies to reduce stressors in the workplace. It should help ensure that HCWs receive adequate support and resources to allow them to provide quality care safely, productively and with greater job satisfaction. In essence, at the practice level, if the policy recommendations mentioned in the previous paragraph are adhered to, the leadership of LTC homes can create recruitment strategies that can address the chronic understaffing. To do this, they can develop a comprehensive

recruitment plan that includes offering attractive benefits to HCWs from outside their city or province. These incentives could include relocation payments and housing to encourage prospective HCWs to work for them.

Prior to the pandemic, a nursing shortage already existed. The pandemic only exacerbated the situation, bringing with it heightened pressures, workloads, and stress levels. These deteriorating work conditions and psychological strain may have caused many HCWs to leave the profession, thereby leading to significant staffing shortage. In order to effectively address the issue of understaffing, I propose that LTC homes consider implementing an *in-house, hands-on* training program for individuals looking to get into the healthcare profession, in collaboration with institutes that provide such training. This strategy would not only assist in replacing HCWs who may have retired due to a public health emergency, but is also likely to reduce burnout, fatigue, and workload for certified HCWs. Additionally, it may decrease the amount of overtime worked by HCWs. To further incentivize the program, those who participate in the training should be informed that they will be paid for the duration of the training and that the tuition will be covered. Furthermore, those who complete the training should be asked to make a one-year commitment to the implementing LTC homes. This recommendation has the potential to have a beneficial effect on the mental health of HCWs in LTC homes by improving their perceived job satisfaction and reducing their levels of burnout and fatigue. It can also lead to fewer physical and mental strain factors amongst these HCWs that would typically be present due to the higher staff-to-patient ratio.

Addressing HCWs' workload during a public health crisis through Systemic Solutions

The findings from my research study suggest that the majority of participants proposed systemic solutions to the micro-level mental health challenges they faced, such as changes to

workload, staffing management and meeting basic staff needs. In order to effectively address these issues, it is important to consider the needs of HCWs in LTC homes on a larger scale. It is therefore imperative for the leaders responsible for these LTC homes to adopt systemic solutions in order to fully address the psychological needs of HCWs. Supportive management practices and an understanding of the unique stressors faced by HCWs in the field must also be considered in order to ensure that they remain resilient and effective, both during and after the COVID-19 pandemic. The onset of the COVID-19 pandemic exacerbated the workload of HCWs. Therefore, a policy addressing the tasks for HCWs should be developed and the workforce reinforced to reduce the increased workload being experienced by HCWs. In this context, the developed policy revolving around tasks for HCWs would involve breaking down tasks into clearly outlined steps and assigning responsibilities to specific individuals. It would also involve assessing the workloads of HCWs and setting attainable goals for their completion. Having effective communication methods between staff members and a clear chain of command could also help with proper organization of tasks.

Additionally, creating systems in order to promote efficiency, utilization of resources, and improved workflow can help ensure that HCWs have a manageable workload. Since the findings of this study presented a link between workplace stressors and the psychological stressors they faced, it is pertinent that the workload and staffing strength of HCWs be further reviewed in this policy. The research findings of this study also suggest that the workload of HCWs should be consistently reviewed on an annual basis by policymakers and management of these LTC homes. This review can be conducted in light of the national scholarship that has emerged from the pandemic, calling for LTC reform and new standards. The pandemic has clearly exposed the deplorable state of staffing management in HCWs' workload, and other

noted issues affecting the LTC homes. In conclusion, this systemic solution is beneficial for HCWs' mental health, as it can help reduce the increased stress caused by their increased work overload. Finally, such a system can also lead to greater job satisfaction and better mental health for the HCWs in LTC homes.

Addressing bullying and harassment in LTC home: A framework to mitigate stress among HCWs

In this research study, some participants reported strained relationships amongst their colleagues as a form of stressor. These strained relationships as described by the HCWs involved, presents as passive-aggressive behaviours, bullying, and harassment, which had a detrimental impact on their mental health. To address and manage these issues, an existing policy should be amended to be more implementable at the practice level. Such policy should emphasize the need for respect and open communications amongst HCWs. In addition, a quarterly training that addresses all forms of bullying and harassment amongst HCWs should be incorporated into this policy. Furthermore, appropriate conflict resolution and effective ways of mediation should be included in the policy in order to resolve strained relationships among HCWs. Given that a public health crisis serves as an additional stressor to HCWs, these policies and recommendations should be designed to address such issues, even during an infectious disease outbreak in long-term care (LTC) homes. Finally, the policy should establish that there are consequences for any staff members who do not adhere to the policies against bullying and harassment, which could lead to strained relationships amongst frontline HCWs.

In summary, the implementation of a recommendation to address bullying and harassment in LTC homes will have a positive impact on the mental health of HCWs by enhancing the work environment and providing a sense of safety and respect.

Improving mental health support for HCWs through spiritual development practices

A recommendation for policy and practice level at the macro and meso levels based on this finding would include considering the cultural backgrounds of HCWs when providing mental health support to ensure equitable access to mental health resources for these workers. However, more research may be required to explore the relationship between mental health and spiritual practice among HCWs of different cultural backgrounds in the face of infectious disease outbreaks. Furthermore, LTC homes can support this spiritual development in a variety of ways. One of such way is to provide access to spiritual materials, such as books and publications related to spiritual development. The leadership of these LTC homes could also encourage HCWs to engage in spiritual practices, such as mindfulness and meditation during work breaks or work hours to reduce stress and promote mental well-being. They may also offer counseling and other mental health services to employees. Finally, these employers in the LTC sector can ensure that religious and spiritual holidays are recognized and that employees receive adequate time off to observe such beliefs. However, implementation of such spiritual development support may come with some potential pitfalls in that; it could alienate some employees with diverse beliefs by favouring certain religious or spiritual beliefs over others, and not allowing for freedom of expression in religious and spiritual practices. Also, there can be a lack of recognition of particular spiritual and religious holidays, which can lead to feelings of exclusion and marginalization among employees who practice those beliefs. Finally, employers should also be aware of potential safety risks associated with spiritual practices, such as ritualistic activities that may involve open flames or other hazardous materials. This recommendation has the potential to positively impact the mental health of HCWs in that they are assured equitable access to enormous resources for their spiritual development while recognizing their cultural backgrounds.

Recommendations at the Micro level

Encouraging vacation time for HCWs during a public health emergency

Findings from this research study also indicated some micro-level behaviours of some HCWs during the pandemic in relation to taking time off work to de-stress and manage identifiable stressors. Though these HCWs had to take time off work, the implication that this meant resulted into further understaffing in which leadership of these LTC homes may have struggled to cover each staff's shift when such time off is taken. To assist, prevent and manage any burnouts that HCWs encounter, employees should be encouraged to take regular breaks through out their shift and the year. Just like in the attendance awareness policy, I suggest and recommend that flexible working hours to assist employees in taking time off at the most appropriate time should also be considered. Policy to develop and implement vacation awareness campaign that encourages employees to take their allotted vacation days should be in effect as well. Although some of the HCWs involved in this study reported that they needed time off from work to help them manage their stressors, some may not use such strategies. Generally, the leadership of the LTC homes may require HCWs to indicate their vacation plans in advance. Nevertheless, due to the restrictions imposed by the COVID-19 pandemic, staff behaviour can make this vacation policy unfeasible. This may be due to the fact that staff members may choose not to take vacations, as there were no places to relax and de-stress, and instead opt to be financially reimbursed for unused vacation hours.

Additionally, the leadership of these LTC homes should ensure that the resources they provide are tailored to the needs of the HCWs; for example, offering flexible work schedules and providing access to a variety of resiliency strategies, such as meditation and yoga classes, could help HCWs cope with the pressures of their jobs. Also, at the micro level, increased

communication, and support between HCWs may enable them to share their professional and personal challenges and support each other. As such, leaders in these LTC homes can establish a 'buddy system' that provides each HCW with someone they can turn to when they are struggling during a public health emergency.

Fatigue threshold: Developing strategic recommendations to manage mental health of HCWs in LTC homes during a public health crisis

Fatigue threshold that addresses the mental health difficulties of HCWs in LTC homes during a public health crisis such as the COVID-19 pandemic should be implemented. Based what participants in this study implied, fatigue threshold is the maximum level of physical and mental exhaustion that HCWs could endure in order to perform their duties safely and effectively. The fatigue threshold concept is a recommendation that is essential for these HCWs' mental health, because reaching an excessive level of fatigue may have damaging effects and consequences on their psychological and physical wellbeing. According to Lopez and Copper (2019), excessive fatigue and stress may lead to a host of negative mental health symptoms such as irritability, difficulty concentrating, anxiety, depression, poor judgment, and even delusions or suicidal thoughts. Therefore, ensuring that HCWs is LTC are cognizant to their fatigue threshold is important in the management of their mental health. Education around these HCWs knowing and understanding what the signs of fatigue are, and how such fatigue begins to affect their ability to function, and effectively may prepare to take proactive action to counter, or even prevent, negative mental health symptoms is recommended. In essence, LTC homes should have a system to regularly educate all employees on the significance of adequate sleep and rest, and the potential harmful effects of sleep deprivation, especially during a public health crisis.

In general, emergency policies should be established to anticipate and manage any potential public health crisis. This proactive approach will ensure that the LTC home leadership is well-equipped to handle the challenges of a public health crisis HCWs in LTC homes may experience. The effects of the COVID-pandemic such as the exacerbated understaffing, increased workload, and other stressors, were observed to have detrimental impact on the mental wellbeing of HCWs in this study, resulting in fatigue and other implications. Consequently, I recommend that evidence-based fatigue thresholds should be integrated into the policies and procedures of each LTC homes. Finally, I recommend that every LTC homes should have a system in place to effectively monitor fatigue levels of HCWs in their policies and procedures.

Finally, the recommendations provided in this research may be helpful during and after a public health emergency. However, though this study was tailored to a particular context and specific geographical area, the findings and recommendations may also be helpful in other healthcare settings and provinces.

Conclusion

In conclusion, the results of this research study show the need to understand and monitor the numerous psychological stressors HCWs in LTC homes experience during a public health crisis. Providing a strong mental health support system and better communication to these frontline HCWs in LTC homes by the managers, and other stakeholders involved in the care of those in LTC homes will go a long way. Leadership of LTC homes must implement interventions, strategies, psychological counselling, better education, and training programs to better prepare HCWs for any future public health crisis. Some of this intervention revolves around the leadership and management of these LTC sectors implementing a variety of strategies such as revisiting and revamping the staff to resident ratios in the LTC sector. Educational and

training programs should focus on crisis management, up-to-date public health awareness, and communication skills. Perhaps most importantly, leadership should provide mentoring and support for HCWs so that they are better equipped to handle any future public health crisis.

The leadership may also create an environment where HCWs feel supported and free to express their concerns, and where they can receive feedback on how they can best protect themselves and provide care in a safe and efficient manner. Additionally, leadership should consider implementing programs to reduce the stigma associated with public health measures, such as isolation and quarantine protocols. Finally, leadership should continuously monitor and review policies to ensure that all stakeholders are informed and up to date on the latest public health developments.

The study results are relevant for designing the necessary interventions to implement during future public health crises for HCWs in LTC homes across Alberta's different health zones. In order to design this necessary and effective interventions to help HCWs in LTC homes across Alberta, healthcare leaders and decision-makers should advocate for sustainable resources such as improved working conditions, better safety measures, increased access to mental health support, and education on best practices. Furthermore, healthcare decision-makers should prioritize the well-being of HCWs and foster an environment whereby HCWs feel supported, respected, and valued for their contributions. By advocating for these resources and creating a supportive and positive work environment, HCWs will be better equipped to handle any future public health crises. In designing these interventions, healthcare leaders and decision-makers of LTC homes need to advocate better for sustainable resources for HCWs. These resources revolve around financial and human capital to help support these HCWs. Also, clearly developed policies and procedures around the staffing levels and workload of HCWs in LTC homes that are

operational and feasible need to be put in place throughout LTC homes. These policies then need to be implemented to address frontline HCWs' stressors while carrying out their duties at the workplace.

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APPENDICES

APPENDIX A: PARTICIPANT CONSENT FORM

Title of Study: Exploring the stressors and coping experience of healthcare workers in long-term care homes during COVID-19 crisis within Southern Alberta.

Investigators:
Silvia Koso, MD, MPH, CE Instructor – Faculty of Health Sciences
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Adebayo Adeosun, B.Sc., MSc Student – Faculty of Health Sciences
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Why am I being asked to take part in this research study?
You are being invited to take part in a research study about the stressors and coping experiences of healthcare workers in long-term care homes during the COVID-19 pandemic in Southern Alberta. You are invited to take part in this study because you are a healthcare worker in a long-term care home with experiences of providing nursing care to residents during the COVID-19 pandemic. One of the researchers will explain this study to you before you decide to take part or not. You are encouraged to ask questions about anything you do not understand. You will be given a copy of this form for your records.

What is the reason for doing the study?
Since the start of COVID-19 pandemic, especially in long-term care homes in Canada, little or no attention has been given to the negative impacts on the mental health of healthcare workers in these homes. We intend to understand how the demands of COVID-19 may have affected the mental health of healthcare workers. With the help of our participants, this research will help provide information needed to promote necessary intervention.

What will I be asked to do?
You will be asked take part in a Zoom interview at a suitable time, a secured location of yours, and to complete a short demographic survey of about eight questions. This interview will be a semi structured informal conversation that will be audio recorded. You are allowed to turn off your camera during the interview. This interview will approximately be 30-90 minutes.

What are the risks and discomforts?
There are little anticipated risks or discomforts that are no greater than what you would normally experience in your day-to-day life. However, speaking about your mental health challenges may be upsetting. If need be, a list of counselling services will be provided for you. It is not possible to know all of the risks that may happen in a study, but the researchers have taken all reasonable safeguards to minimize any known risks to a study participant.

What are the benefits to me?
You may experience personal satisfaction in knowing that you will be contributing to the body of knowledge concerning the impact a public health outbreak may have on the health of healthcare

workers. Your participation in this research study will allow for the information needed for interventions to promote the psychological wellbeing of healthcare workers caring for suspected and or confirmed cases of COVID-19 residents. The findings from this research will be shared with the leadership of the Occupational Health, Safety, & Wellness departments of long-term care homes.

Do I have to take part in the study?
No. Please note that your participation in this research is completely voluntary. You also have the right to choose to not answer any question or you may choose to also withdraw from the interview at any point in time for any reason. Withdrawing from the interview will not affect your employment with your employer, or your relationship with the University of Lethbridge. During the Zoom interview session, you have the choice to turn off your camera at any point in time. Either way, only audio content will be recorded.

Will I be paid to be in the research study?
No, you will not be paid for this research study. However, once the study is completed, you will be given a copy of the findings of this research study if you wish to have one.

Will my information be kept private?
The recorded interview will be assigned a pseudonym name (a name totally different from yours). This pseudonym name will not be associated with your name or any identifying information from you. All information gathered from you during the research study will be strictly kept confidential. Your name will not appear in any report of publication of the research. The data obtained from your will be digitally recorded and transcribed manually and through the use of a transcription software. All digital data will be saved on a secure server, an encrypted external hard drive as well as on Adebayo Adeosun's password protected computer that will be encrypted. All physical or paper data will be safely stored in a locked cabinet at the University of Lethbridge accessible only to the researcher. The obtained data will be saved up to 5years, after which it will be destroyed. The findings of the study will be shared within the academic space through conferences, presentations, as well as through written documentations such as reports and academic papers. During the final stage of the research, you will be contacted via-email or telephone calls for clarification and or follow-up purposes. Kindly let us know if you would want a copy of the findings from this study.

What if I have questions?
If you have questions about the research in general or about your role in the study, please feel free to contact Silvia Koso either by telephone at (587)-228-3132, or by e-mail (silvia.koso@uleth.ca), and/or Adebayo Adeosun either by telephone at (416)-835-4430, or by email (adebayo.adeosun@uleth.ca).

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615. This office has no affiliation with the study researchers.

CONSENT FORM

Title of Study: Exploring the stressors and coping experiences of healthcare workers in long-term care homes during the COVD-19 crisis within Southern Alberta.

Principal Investigator: Silvia Koso, **Contact information: (587) 228-3132**
silvia.koso@uleth.ca

Investigator: Adebayo Adeosun, **Contact information: (416) 835-4430** adebayo.adeosun@uleth.ca

	Yes	No
Do you understand that you have been asked to participate in a research study?	☐	☐
Have you read and have received a copy of the Consent Form?	☐	☐
Do you understand the benefits and risks involved in taking part in this research study?	☐	☐
Have you been opportune to ask questions about this research study?	☐	☐
Do you understand that you are free to leave the interview at any time, for any reason?	☐	☐
Has the issue of confidentiality been explained to you?	☐	☐
Do you understand who will have access to your data?	☐	☐

Who explained this research study to you?_____

Do you consent for us to follow up with you after the interview for the purposes of sharing research findings or discussing future research opportunities? ☐ ☐

I agree to take part in this study:

_____
(Signature of Research Participant)

_____
(Printed Name)

Date: _____

Signature of Investigator or Designee: _____
Date: _____

APPENNDIX B: Participant Recruitment Poster

PARTICIPANTS NEEDED FOR

RESEARCH IN Stressors and Coping Experience of Healthcare Workers in Long-term care homes

I am looking for volunteers to take part in a study of *exploring the stressors and coping experience of healthcare workers in long-term care homes during COVID-19 crisis within Southern Alberta.*

Participants must be:

(a) A registered nurse (RN) or licenced practical nurse (LPN) or health care aide (HCA) or recreational therapist or assistant therapist.

(b) Have at least one year working experience as a casual, full-, or part-time staff in LTC homes since COVID-19 started.

(c) Willing to share about your mental health experiences while working in a long-term care home prior to Covid-19 and during Covid-19 pandemic.

You would be asked to participate in a 30-90minute individual face to face videoconferencing interview

Participation is anonymous and confidential

For more information about this study, or to volunteer for this study, please contact:
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This study has been reviewed for ethical acceptability and approved by the University of Alberta REB 3: Health Research Ethics Board-Health Panel and operational approval from Alberta Health services.

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APPENDIX C: Member Check Guide

- Does any part of this interpretation/text/themes reflect your experience?
- Do you require further clarifications or changes made to any part of this interpretation/text/themes?
- Would you require any part of this interpretation/text/themes be omitted/removed?
- Does any part of the interpretation/text/themes uniquely stand out for you?
- Are you in support and comfortable of me proceeding with the identified themes?

APPENDIX D: Participant demographic Information form

Date:

Name (Pseudonym):

Age:

- 18-22
- 23-27
- 28-32
- 33-37
- 38-42
- 43-47
- 48-52
- 52 & Above

Gender:

Professional designation:

- HCA
- LPN
- RN
- Recreation Therapist
- Recreation Therapist Assistant

Education:

- Postgraduate diploma
- Undergraduate degree
- Post-Secondary Diploma
- High School Diploma

FTE:

- Full-time
- Part-time
- Casual

Total Number of number of years working in LTC: _____

Religious views:

Political affiliation:

APPENDIX E: Interview Guide (*Interview Questions)*

1. How did you come to work in a long-term care home?
2. How has Covid-19 impacted your work in LTC?
3. How was your mental health working in LTC before Covid-19?

    3a) What were the stressors you experienced?

    3b) How did you manage them?
4. What has your mental health been like since the onset of Covid-19?

    4a) What are the stressors?

    4b) How have you been able to manage them?
5. What has worked well for you?

    5a) Where have you felt resilient?
6. How has the introduction of Covid-19 vaccines impacted your work life?
7. What supports and changes would you like to see/would be beneficial for LTC workers?
8. Finally, is there anything that we haven't talked about yet that you think I should know about this topic?

APPENDIX F: Professional Counselling Services and Mental Health Resources

List of Professional Counselling Resources with the Southern Zone of Alberta:

1. Alberta Health Services Mental Health Clinic- 1-403-329-4775
2. Alberta Blue Cross-Mental Health Support- 1-877-303-2642 (toll free)
3. Canadian Mental Health Association-Alberta South Region- 403-327-7905 or toll free 1-888-787-2880. (Available 24 hrs. a day, and 7 days per week)
4. City of Brooks Mental Health Support- 1-866-585-0445 or visit their website at : https://wellnesstogether.ca/en-CA
5. Community Crisis line Lethbridge: 403-327-7905.
6. Lethbridge Counselling Services. Address: 740 4 Ave South of Lethbridge, Suite 207. Telephone: 403-9542-0452.