The Experience of Posttraumatic Growth (PTG) for Social Workers Working in Healthcare Settings During the COVID-19 Pandemic in Aotearoa, New Zealand: A Qualitative Exploration

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Abstract

The risk of decreased mental health for healthcare workers working during the COVID-19 pandemic is well established. This risk was found to be a result of significant occupational stresses and fears in response to the spread of a novel virus. Numerous measures were identified to mitigate this risk. These measures are primarily directed at enhancing workers' self-care and resilience and their ability to bounce back to pre-pandemic levels of coping. These measures are effective in reducing workers' risk for negative outcomes; however, emerging research is finding that there may be positive and rewarding outcomes from working during COVID-19. The aim of this study was to contribute to this evolving research by qualitatively exploring the possibility of transformational growth for social workers working in healthcare in Aotearoa, New Zealand, during COVID-19. To achieve this, semi-structured interviews were conducted with a sample of six social workers. A reflexive thematic analysis was performed by applying the theoretical lens of Tedeschi and Calhoun's posttraumatic growth (PTG) theory. The key findings of this study were: All six participating social workers experienced transformational PTG from struggling with the challenges posed by the pandemic. PTG was experienced in the PTG domains, personal strength, new possibilities, relating to others, and appreciation of life. The participants expressed a high identification with their social work profession including its culture and focus on reflexivity, supervision, collegial support and self-care. This identification appeared to have increased their likelihood of experiencing PTG during the pandemic. Many participants experienced PTG in the form of an increased sense of self and a shift toward paying more attention to their own needs. These findings contribute to the development of future pandemic response strategies that emphasise healthcare workers' experiences of positive transformational growth. Further research is recommended to explore the experience of PTG in greater depth, examine the prevalence of PTG for social workers in healthcare during COVID-19, and investigate the identified PTG experience of a shift toward paying attention to one's own needs from a theoretical analysis perspective.

Acknowledgements

I was engaged in researching and writing this thesis from February 2020 to March 2023. When a few weeks into my study programme, on 11 March 2020, the World Health Organisation (WHO) declared COVID-19 a pandemic, we entered new territory, and I knew that my research would not continue according to plan. But what was ahead of me, put everything in the shade. Over the three years of my master's programme, I experienced the challenges of the pandemic as a social worker first-hand in my employment at a hospital, and I experienced life altering trauma in my personal life.

As I conducted my research into the positive transformational growth that originates from highly challenging and traumatic experiences, in a parallel process, I got to experience seismic positive transformational growth in my own life. A growth, that includes surviving and healing from trauma, becoming educated, learning how to communicate, and feeling an abundance of gratitude and love.

Four women at Massey University were sent into my life, who held me in a safe, supportive learning space for the period of my thesis, helping me grow beyond what I thought was possible. They are my two supervisors, Associate Professor Dr Ksenija Napan and Associate Professor Dr Shirley Jülich, my consultant at the Centre for Learner Success, Janet Wutzler, and my counsellor at Student Health, Lynn Yang. I can best describe my gratitude using images: Learning from Dr Jülich was like being taken to a mountain lake - its surface so still and water so clear, the light permeated its depths. She made the complex clear and accessible. Learning from Dr Napan was like finding myself swimming with dolphins in a glistening ocean of profound joy and inspiration. Never will I forget her comment at the beginning: "I am looking forward to all of it". I experienced working with Janet Wutzler as creating new trails for written communication. I felt I mastered the nuances of language, syntax and structure, equipping me to really communicate what I was trying to say, connect with my reader and be understood. Being treated by Lynn Yang was like visiting my far away childhood to talking with my mother one more time, which set me free.

I cannot express how grateful I am for having been able to study at such a wonderful and supportive university and I know now why people wear their university colours and t-shirts lifelong.

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And, finally, I have to thank my partner, who, in the midst of the building site we live in, made me the perfect workstation with a new notebook and multiple screens.

This research project was granted full ethics approval by the Massey University Human Ethics Northern Committee in Auckland, New Zealand, on 06 December 2021: NOR 21/70.

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Introduction

A memory is burned into my mind, and into my heart. The image of a white coffin being carried out the door of our church was the last I saw of my mother. I was 14 years old, in a grey coat from her closet. It was winter in Germany, and the world was grey. Everything was grey. And it stayed grey. Until, many years later, on Tinos in Greece, a friend told me that the trauma of my childhood was not the destruction of my life, but to the contrary, the motivation for my growth, and my life's purpose. That day in Greece, my life changed, and the colours returned. How beautiful it was, the early morning sun over the blue Mediterranean Sea.

Today, I live in New Zealand. I am a social worker at a tertiary hospital, and it was only a few weeks into my master's programme, that, on 11 March 2020, the World Health Organisation (WHO) declared the coronavirus disease (COVID-19) a pandemic (WHO, 2023).

COVID-19 is the illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in Wuhan, China in December 2019, and, from there, evolved into a global pandemic and the health crisis of our time. After three years, the WHO still regards COVID-19 as a pandemic, while plans slowly begin to emerge toward regarding SARS-CoV-2 as an endemic virus in the near future. As of 18:21 CET, 7 March 2023, the WHO recorded 759,408,703 confirmed cases of COVID-19 and 6,866,434 deaths globally with numbers continuing to rise; and as of 6 March 2023, the WHO recorded 13,229,471,213 vaccine doses administered worldwide (WHO, 2023).

Aotearoa, New Zealand was one of the most successful countries in the world to control the spread of COVID-19 and minimise the loss of health and lives. This success was thanks to the New Zealand elimination strategy *Going Hard and Going Early* (Cumming, 2022; Jamieson, 2020; Ministry of Health, 2020, 2021) which involved entry controls at the border and took advantage of the country's geographical location. The strategy also involved a four-level national alert system and lockdowns. As of 11:59 NZST, 6 March 2023, the Ministry of Health recorded 2,228,291 cases of COVID-19 in New Zealand and 2,548 deaths ("Covid-19", 2023).

In response to a national vaccination campaign, the vaccination uptake in New Zealand was high. As of 6 March 2023, the WHO reported 84.76 persons per 100 population in New Zealand to be fully vaccinated (with the last dose of the primary series), and 56.34 per 100 population to be boosted (Ministry of Health, 2020, 2021). The vaccination mandate for healthcare workers came into force in New Zealand on 30 April 2021 (COVID-19 Public Health Response (Vaccinations) Order 2021).

The COVID-19 pandemic posed major challenges for the community of nations and our socioeconomic and healthcare systems globally. In particular, the pandemic posed challenges for the healthcare workforce that combats the disease on the front line. During pandemic times, the continuation of healthcare is critical, and healthcare workers' coping and willingness to come to work must be preserved despite their risk for adverse outcomes. The adverse outcomes, in this context, include morbidity and mortality, mental health issues, moral injury, and transmission of the disease to loved ones. Specifically, healthcare workers' risk for negative mental health outcomes has been investigated with respect to severe stress reactions and vicarious trauma (Vagni et al., 2020), fatigue (Teng et al., 2020), depression and anxiety (Chen et al., 2020), and burnout (Matsuo et al., 2020).

Healthcare workers' risk for adverse consequences from working during COVID-19, and the requirement on them to continue their employment, elicited research to find answers to the problem of how to enhance healthcare workers' coping and resilience This important research focused on protective and mediating factors, to guide individual and organisational measures to mitigate this risk.

While acknowledging the relevance of this response-focused research and its immediate professional value, another type of research is gaining credence: research that applies a holistic and salutogenic perspective and is interested in what the pandemic can teach us. While this salutogenic-oriented research is gaining momentum, there is qualitatively still little known about the rewarding and transformational outcomes for healthcare workers during the pandemic. And there appears to be a paucity of qualitative investigation into social workers' positive transformational growth experiences in healthcare during COVID-19 in New Zealand.

This study aimed to address this gap by qualitatively exploring social workers' transformational posttraumatic growth (PTG) experiences from working in healthcare settings in New Zealand, during the COVID-19 pandemic and its related lockdowns. The study used individual online interviews with a semi-structured interview guide and applied the lens of posttraumatic growth (PTG) theory (Tedeschi et al., 2018) to explore how social workers in healthcare experienced personal transformational growth from suffering adversity during the COVID-19 pandemic.

I was drawn to investigate the experiences of social workers in health settings from the moment the COVID-19 pandemic arrived in New Zealand. As a hospital social worker, I was in the midst of it when it happened and, together with my colleagues, I was trying to make sense of it. My instant interest to use the theoretical lens of PTG theory (Tedeschi et al., 2018), likely goes back to this moment in Greece, when my understanding of the world shifted and I started to believe that things in life don't happen against us, but for us, to help us move forward and grow.

Overall, this study aims to contribute to the evolving body of salutogenically oriented research into the healthcare workforce during a pandemic. It also aims to inform future crisis response strategies that take a salutogenic approach and are sensitive toward learning what a pandemic or health crisis can teach us. I expect that this shift in perspective, away from essentially *coping with* to *growing in response to* provides the space for rethinking the nature of crisis and how we conceive our response to it.

Individual interviews with six social workers in this study consistently revealed the participants' experience of posttraumatic growth (PTG) from working in healthcare during COVID-19. The participants frequently identified PTG experiences in the areas of sense of self, self-identity, personal strength, and increased attention to their own needs versus the needs of others. According to the participants, their transformational growth experiences were desirable outcomes with regard to how they viewed themselves and the world we live in, and were representative of authentic and often long-desired changes.

This research thesis is structured as follows: following the introduction, I review the existing literature on the negative mental health outcomes as well as the posttraumatic growth (PTG) outcomes for healthcare workers from working during the COVID-19 pandemic. Then, I present my methodological design of a thematic analysis following the approach of Braun and Clarke (2013), and an introduction to posttraumatic growth (PTG) theory (Tedeschi et al., 2018), which is the theoretical lens of this study. The analysis and discussion are combined into one narrative that is told about the data in this study, followed by a conclusion.

The three years of my part-time master's programme in social work at Massey University were overshadowed by deep personal trauma that took me back to the early years of my life which had been filled with existential fear and my mother's illness.

It all started when I had to cancel my flight to our welcome workshop to the programme as the first cases of COVID-19 were recorded in New Zealand and the country went into a national lockdown. It was overnight that we lost many of our sources of income, and that we no longer were able to finance the lease for the warehouse we, until then, worked and lived in. And as we moved into a 'do-up', fearful of how to manage our finances, a family member was diagnosed with a dangerous illness. Suddenly, all I could think of was, 'I am back here again' in a dirty grey house, on the stairs, in a pain for which there are no words.

But this time, it was different. Thanks to the wonderful women I had in my life, my colleagues at work who prayed with me in the hospital closet, my professors who held me in the space of their wisdom and somehow were always there when I needed them, the wonderful woman from the

academic support service who, on zoom, always felt a bit like a visitor from the future where everything was easy and good, and my university counsellor who did an exercise with me that finally took me back to my childhood, and set me free.

Working on my research during this time became a deeply healing and reflexive experience, as my topic began to reflexively inform my experience, and my experience to inform my understanding of the research topic. Listening to the reflections of the women in the study sample, who invited me into their personal stories, made me deeply respect the inside-out beauty of these powerful women with whom I share my discipline.

Literature Review

Healthcare Workers' Mental Health During COVID-19

A dynamic and fast-evolving global COVID-19 crisis has led to equally dynamic and fast-evolving research into many of its impacts, and in particular, impacts within healthcare. The front-line healthcare workforce and its ability to function under pandemic conditions have been central topics of this research. Specifically, healthcare workers' negative mental health outcomes were given attention (Al Falasi et al., 2021; Magnavita et al., 2021; Santabárbara et al., 2021).

The character of the increasing research into the healthcare workforce appears essentially crisis-driven and oriented towards preserving the status quo healthcare during pandemic times. The risk for healthcare workers to suffer negative mental health consequences from working during the pandemic has been well established, and findings from the evolving research on this risk inform crisis response strategies (Rolling et a., 2021; Sockalingam et al., 2020) and occupational recommendations (Jerg-Bretzke et al., 2021).

Overall, research into the front-line healthcare workforce during COVID-19 uses similar research methods and reveals similar findings to research into the front-line healthcare workforce during preceding pandemics (Belfroid et al., 2018; Broom & Broom, 2016; Kang et al., 2018, Tang et al., 1017). The preceding pandemics include Ebola virus disease in 2014, H7N9 influenza (bird flu) in 2013, Middle East respiratory syndrome (MERS) in 2012, H1N1 influenza (swine flu) in 2009, and severe acute respiratory syndrome (SARS) in 2003.

A common feature of research into any pandemic is its emphasis on healthcare workers' risk for negative mental health outcomes, contributing and protective factors, and mitigating measures to address this risk. Resilience plays a central role in this research (Baskin et al., 2021; Croghan et al.,

2021; Di Giuseppe et al., 2021). This focus on risk and resilience is indicative of a research orientation towards status quo healthcare preservation and 'bouncing back', rather than the transformation of health systems that impact professionals' health and wellbeing.

From the perspective of a longer-term outlook and a wider evaluation of the global impact of COVID-19, another type of research has been increasingly evolving and gaining credibility. It has an orientation toward the salutogenic realm, that is, the holistic focus on what adaptation and growth can be engendered from adverse experiences (Antonovsky, 1987), and is interested in rewarding consequences for healthcare workers during COVID-19 (Rajkumar, 2021). Two of the main theoretical concepts applied by this research are a sense of coherence (SOC) (Antonovsky, 1987) and posttraumatic growth (PTG) (Calhoun & Tedeschi, 2014). Examinations into SOC focus on frontline workers' competency to stay well during adverse times (Gómez-Salgado et al., 2020; Veronese et al., 2022), while examinations into PTG go a step further and focus on workers' positive transformation (Zhang et al., 2021; Feingold et al., 2022).

Within the salutogenic perspective, research into PTG most clearly shows a shift toward a future-oriented paradigm. It seems that research into PTG leads the way into a new research direction, away from the examination of negative mental health consequences, resistance and resilience, toward the examination of newly mobilised psychological resources and positive transformation. With this direction, research into PTG holds merit in discovering what we can learn from the COVID-19 pandemic, and what it can teach us.

There is an increasing endorsement for salutogenic and PTG-focused research into healthcare workers' mental health during COVID-19, for example, by Kalaitzaki et al. (2020) in a letter to the editor of the Asian Journal of Psychiatry, and by Olson et al. (2020) in an opinion article published in the Journal of the American Medical Association JAMA. Their endorsement is supported by the findings of several original studies into healthcare workers' PTG during COVID-19. These studies consistently point toward the incidence of PTG in the healthcare workforce and call for further research into this positive outcome from working during a pandemic (Cui et al., 2021; Feingold et al., 2022; Peng et al., 2021).

The boundaries between primarily risk-oriented research and primarily salutogenic-oriented research, however, are fluid, with some risk response-oriented studies using a resilience concept of learning and growing (Heath et al., 2020), and some studies into PTG viewing PTG as one factor amongst others to positively buffer against negative mental health outcomes at crisis times (Aggar et al., 2022).

Domineering Quantitative Paradigm

Most of the healthcare workforce preserving research into COVID-19 subscribes to quantitative research methodologies. It investigates a wide spectrum of negative mental health consequences and examines the contributing, protective, and mediating factors. It also often suggests preventative organisational and individual measures. The design of these quantitative investigations, to a major extent, employs cross-sectional surveys with validated Likert-type scale instruments and builds on multivariate logistic regressions. Frequently used instruments include national adaptations of the Maslach Burnout Inventory (MBI) (Maslach et al., 1997), the Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995), the Insomnia Severity Index (ISI) (Morin et al., 2011), and the Moral Injury Events Scale (MIES) (Nash et al., 2013). While frequently used instruments to examine adaptive coping and resilience in this research include national adaptations of the Brief Resilience Scale (BRS) (Smith et al., 2008), the Resilience Scale (RS) and the 14-item Resilience Scale (RS-14) (Wagnild, 2011), and the Intolerance of Uncertainty Scale (IUS) (Freeston et al., 1994). A further characteristic of this quantitative research is a dominant representation of the medical disciplines, nurses and physicians, within its samples, versus an under-representation of the allied health disciplines including social work.

Healthcare Workers' Risk for Negative Mental Health Outcomes

The quantitative research into healthcare workers' mental health, in conjunction with similar research conducted during previous pandemics, forms a substantial and multidimensional body of knowledge about healthcare workers' risk for negative mental health outcomes. The identified negative outcomes include stress (Jerg-Bretzke et al., 2021; Tam et al., 2020; Vagni et al, 2020), psychological distress (Mulfinger et al., 2020; Tam et al., 2020), exhaustion (Secosan et al., 2020), emotional exhaustion (Moreno-Jiménez et al., 2021), fatigue (Teng et al., 2020), alcohol and drug misuse (Stuijfzand et al., 2020), insomnia (Lai et al., 2020; Secosan et al., 2020), anxiety and depression (Elbay et al., 2020; Lai et al., 2020; Teng et al., 2020), burnout (Jang et al., 2021; Magnavita et al., 2021; Matsuo et al., 2020; Nishimura et al., 2021), moral injury (Hines et al., 2021), vicarious trauma and secondary traumatic stress (Secosan et al., 2020; Moreno-Jiménez et al., 2021; Vagni et al., 2020), trauma (Chen et al., 2021), and posttraumatic stress disorder (PTSD) (Al Falasi et al., 2021; Batra et al., 2020; Stuijfzand et al., 2020). Secondary traumatic stress in this research results from witnessing the trauma of patients and co-workers (Moreno-Jiménez et al., 2021), while traumatic moral injury results from knowing what a patient needs but being prevented from helping, either by protocol, line-management instruction, or limited available resources including PPE (Hines et al., 2021).

Many quantitative studies have also hypothesised and tested the interactional and mediating effects between the different psychological stresses and mental health issues. An example of this is a study by Secosan et al. (2020), who found that among Romanian healthcare workers, the relationship between

secondary traumatic stress and negative mental health outcomes was mediated by insomnia and exhaustion.

Consistently, the prevalence of mental health issues was found to be high within the healthcare population during any pandemic, often situated between the 30% to 50% margins and higher, with many workers experiencing more than one issue (Chen et al., 2021). Examples of findings on pooled prevalence are depicted in Table1.

Table 1

Negative Mental Health Outcomes - Pooled Prevalence

Healthcare Workers' Negative Mental Health Consequences During COVID-19 Examples of Pooled Prevalence	
alcohol and drug misuse	at 13% (Stuijfzand et al., 2020)
anxiety	at 25% (Santabárbara et al., 2021), 34.4% (Batra et al., 2020), 37% (Sun et al., 2021), and 45% (Stuijfzand et al., 2020)
burnout	at 37.4% (Batra et al., 2020)
depression	at 31.8% (Batra et al., 2020), 36% (Sun et al., 2021), and 46% (Stuijfzand et al., 2020)
insomnia	at 27.8% (Batra et al., 2020), 32% (Sun et al., 2021), and 39% (Santabárbara et al., 2021)
psychological distress	at 40% (Stuijfzand et al., 2020) and 46.1% (Batra et al., 2020)
PTSD symptoms	at 11.4% (Batra et al., 2020), 21% (Stuijfzand et al., 2020), and 25.1% to 71.5% for China and 26.5% to 60.2% for the USA (Al Falasi et al., 2021)

Examples of findings on prevalence are depicted in Table 2.

Table 2

Negative Mental Health Outcomes - Prevalence

Healthcare Workers' Negative Mental Health Consequences During COVID-19 Examples of Prevalence	
anxiety	at 44.6% for China (Lai et al., 2020), 51.6% for Turkey (Elbay et al., 2020), and 56.3% for Indonesia (Setiawati et al., 2021)
burnout	at 30% to 50% for Japan (Matsuo et al., 2020; Nishimura et al., 2021)
depression	at 50% for China (Teng et al., 2020), 50.4% also for China (Lai et al., 2020), and 64.7% for Turkey (Elbay et al., 2020)
emotional exhaustion	at 63% for Korea (Jang et al., 2021)
insomnia	at 34.0% for China (Lai et al., 2020)
moral injury	at similar prevalence to that of military service members deployed to a war zone for 7 months for the USA (Hines et al., 2020)
psychological distress	at 38 % for China (Tam et al., 2021)

Occupational Stress

The overarching cause for most of the identified negative mental health outcomes was found to be occupational stress, consisting of chronic stress and acute stress. Magnavita et al. (2021) identify in an umbrella review of reviews into COVID-19 and previous pandemics, that "the COVID-19 pandemic presents a sort of perfect storm regarding the intersection of chronic workplace stress resulting in high rates of healthcare workers' burnout and acute traumatic stress imposed by the pandemic" (Magnavita et al., 2021, p. 3). Magnavita et al. suggested that burnout syndrome is likely present in about a third of healthcare workers during any pandemic and warned that its symptoms of exhaustion, lack of motivation, low efficacy, and cynicism pose a direct risk to the quality of care to patients. Jerg-Bretzke et al. (2021) correspondingly found in their VOICE/egePan online survey that 60.80 % of workers in the German-speaking healthcare sector experienced increased work-related stress three-

to-six-months into the pandemic. The specific stresses thereby were suggested to differ between professional groups and employment-related circumstances (Bretzke et al., 2021).

COVID-19-related occupational stress as the main cause of front-line workers' negative mental health outcomes has been researched as a multidimensional interplay of different types, qualities, and facets of stress. The literature in this context delineates several main categories of stress. These categories can be approximated as: stresses related to fear of infection and of passing it on to others (Jang et al., 2021; Vagni et al., 2020); stresses related to workload and worsening employment conditions, including lack of personal protective equipment (PPE) (Kisely et al., 2020), discomfort using PPE including heat stress (Davey et al., 2020; Moreno-Jiménez et al., 2021; Parush et. al, 2020), and quarantine requirements (Madden et al., 2020); stresses related to management structure and leadership style (Barello et al., 2020); stresses related to a double exposure to the pandemic professionally and in one's personal life (Heath et al., 2021; Hines et al., 2021; Tam et al., 2020); stresses related to a sudden visibility and hero status of the non-physician healthcare disciplines (Hennekam et al., 2020) and stigma (Jang et al., 2021; Kisely et al., 2020; Magil et al., 2020; Nishimura et al., 2021); stresses related to moral conflict (Hines et al., 2021); and stresses related to exposure to trauma directly and in others (Secosan et al., 2020; Moreno-Jiménez et al., 2021; Vagni et al., 2020).

Many studies have investigated the interactional and mediating effects of different stresses in view of the resulting impact on frontline workers' mental health. An example of this is a descriptive analysis study by Moreno-Jiménez et al. (2021), who found that amongst Spanish healthcare workers, the relationship between the availability of PPE and secondary traumatic stress and emotional exhaustion was mediated by workload, exposure to death and suffering, and fear of contagion.

Contributing, Protective, and Mediating Factors

A characteristic of quantitative research into healthcare workers' negative mental health outcomes is its focus on a magnitude of research variables within the interplay of contributing, protective, and mediating factors. These manifold variables range from personal characteristics such as gender (Jerg-Bretzke et al., 2021; Sun et al., 2021; Teng et al., 2020) and age (Bozdağ et al., 2021; Elbay et al., 2020; Teng et al., 2020); to personal circumstances such as marital status (Tam et al., 2020), parenting status (Elbay et al., 2020) immigration status (Jerg-Bretzke et al., 2021), geographical location (Lai et al., 2020), social and family support (Teng et al., 2020), and spread of the disease in one's own family (Al Falasi et al., 2021); to vocational specifics such as clinical discipline (Jerg-Bretzke et al., 2021; Vagni et al., 2020; Matsuo et al., 2020), years of experience (Matsuo et al., 2020), level of exposure to COVID-19 positive cases (Batra et al., 2020; Lai et al., 2020; Nishimura et al., 2021; Santabárbara et al., 2021; Stuijfzand et al., 2020; Sun et al., 2021), re-deployment (Jang et al., 2021), institutional support (Finstad et al., 2021; Holmes et al., 2021; Jang et al., 2020; Tam et al., 2020), and availability

of appropriate PPE (Moreno-Jiménez et al., 2021; Parush et al., 2020); to personal coping styles such as self-care (Health et al., 2020), life satisfaction (Bozdağ et al., 2021), ability to tolerate uncertainty (Di Trani et al., 2021), hardiness (Vagni et al., 2020), utilisation of psychological counselling (Magill et al., 2020), and resilience (Serrão et al., 2021; Setiawati et al., 2021; Vagni et al., 2020).

Consistently across these quantitative studies, it has been found that being a woman, being younger, having fewer years of experience, belonging to a non-physician healthcare discipline, lacking family and social support, and having high exposure to COVID-19-positive patients increases the risk of developing negative mental health outcomes (Al Falasi et al., 2021; Elbay et al., 2020; Jerg-Bretzke et al., 2021; Lai et al., 2020; Matsuo et al., 2020; Sun et al., 2021; Teng et al., 2020).

Preventative Measures

An urgent need for preventative measures has uniformly been identified by almost all studies into frontline healthcare workers' mental health. Magnavita et al. (2021), in an umbrella review on burnout during COVID-19 and previous pandemics, for example, identified a pressing need for immediate preventative interventions to preserve healthcare workers' mental health and thereby safeguard our healthcare during COVID-19. However, importantly, Magnavita et al. also concluded that addressing healthcare workers' occupational stresses at baseline, and before a pandemic occurs, should have been, and should be, a public health priority to better protect these workers' mental health. That is, Magnavita et al. proposed protecting this group's mental health by improving the working conditions in healthcare systems, in general, and not only during crisis times.

Research into frontline workers' risk for negative mental health outcomes has identified two overarching categories of preventative measures: individual techniques and organisational strategies. These categories were found to complement each other, and therefore, are best applied conjointly. When used in this way, many studies suggest, they are more effective in preserving frontline workers' mental health during a pandemic (Heath et al., 2021; Magnavita et al., 2021). Tam et al. (2020), in a socioecological study into Chinese HIV healthcare providers, consistent with this suggestion, developed a serial mediation model that illustrates how individual resilience and institutional support can conjointly mediate between COVID-19 stressors and psychological distress outcomes.

Measures at the Organisational Level

At the organisational level, research findings identified many key areas organisations should focus on to best protect healthcare workers' mental health. They conclusively suggested that preventative measures at the organisational level should facilitate a supportive, safe, appreciative, collegial, and adequately resourced vocational environment (Health et al., 2021; Hines et al. 2021; Magnavita et al., 2021). Research suggests there are many specific preventative methods organisations should consider. These include adequate staffing and equipment resources, including personal protective equipment

(PPE) (Moreno-Jiménez et al. (2021); more sophisticated PPE design (Parush et al., 2020); balanced roster methodologies with adequate working hours, regular breaks, and emphasis on a work-life balance (Heath et al., 2021; Nishimura et al., 2021); organisational justice and effective leadership (Heath et a., 2021); consistent flow of information and communication (Stuijfzand et al., 2020); voluntary versus forced redeployment (Stuijfzand et al., 2020); practical support with childcare (Teng et al., 2020); COVID-19 related training (Parush et al., 2020; Stuijfzand et al., 2020); facilitation of professional networking and a 'Battle Buddy' system (Heith et al., 2021); supervision and peer supervision (Elbay et al., 2020); provision of free physiotherapy (Rolling et al., 2021); health-promoting programmes (Magnavita et al., 2021); online wellness activities (Batra et al., 2020); psychoeducation (Nishimura et al. 2021; Rolling et al., 2021); resilience enhancing training (Hines at al., 2021; Tam et al., 2020); psychological treatment (Di Trani et al., 2021; Vagni et al., 2020; Santabárbara et al., 2021; Sun et al., 2021); monitoring and early risk detection (Jang et al., 2021; Stuijfzand et al., 2020); and stepped care mental health response strategies (Magill et al., 2020).

In addition, Matsuo et al. (2020) suggested that line managers' and co-workers' praise might be an effective measure to further mitigate frontline workers' risk for negative mental health outcomes. This recommendation is based on the idea that workers of the non-physician disciplines have less control and decision-making authority in comparison to physicians, and therefore, have a higher need for appreciation to maintain mental wellness.

Measures at the Individual Level

In addition to preventative measures at the organisational level to better protect healthcare workers' mental health, many studies suggested the facilitation of preventative measures also at the individual level. Measures suggested by this research, build on workers' identified innate protective factors and are largely assigned to the concepts of resilience and self-care. Both concepts, resilience and self-care, thereby are viewed as adaptive coping mechanisms that can be learned and practised by the individual worker and taught and facilitated at the institutional level (Bozdağ et al., 2021; Di Trani et al., 2021; Heath et al., 2020; Hines et.al., 2021; Peñacoba et al., 2021; Serrão et al., 2021).

Resilience

Whereas COVID-19-related research into frontline workers' mental health defined resilience, for example, as "the ability to resist disruption of normal functioning in the face of a distressing event, by anticipation and preparation" (Heath et al., 2020, p. 1365), and as "the positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility" (Serrão et al., 2021, p. 637).

Quantitative studies into frontline workers' resilience during COVID-19 conclusively suggest that individual resilience functions as a key protective factor of workers' mental health. Resilience was

found to be a mediator between COVID-19-related stresses and depression and personal-, work-related-, and client-related burnout (Serrão et al., 2021), and to have a significant negative correlation with anxiety (Setiawati et al., 2021). Di Trani et al. (2021) further found that the relationship between resilience and burnout is moderated by the intolerance of uncertainty.

Resilience-enhancing methods, suggested by these quantitative studies are directed at fostering a wide spectrum of identified innate protective qualities. Examples of these qualities include altruism, active coping, emotional intelligence, meaning-making, life purpose, relational interconnection, and pre-emptive preparedness (Heath et al., 2020); life satisfaction, happiness, family relational connectedness, and emotional balance (Magnavita et al., 2021); self-compassion, gratitude, social connection, and sense of purpose (Serrão et al., 2021); positive emotions (Bozdağ et al., 2021); and the ability to tolerate uncertainty (Di Trani et al., 2021).

Self-Care

Next to resilience, the keeping of personal self-care was identified as an effective preventative method at the individual level, and a major player to safeguard healthcare workers' mental health. Both concepts, resilience and self-care, were found to be complementary in mitigating workers' risk for negative mental health outcomes (Heath et al., 2020). Effective self-care strategies, suggested by research into frontline workers' mental health, involve physical exercise, better sleep hygiene, meaningful social interaction, regular mindfulness training and practice, and meditation (Health et al., 2020). The close interdependence between resilience and self-care was supported for example by Bozdağ and Ergün (2021), who found that the quality of sleep was a key determinant of quality of life and life satisfaction, and in turn, resilience.

Qualitative Paradigm

A smaller, however, growing, body of qualitative research into healthcare workers' experiences during COVID-19 complements the dominant quantitative research into workers' negative mental health outcomes. The topics of this qualitative research reflect the various stages of the unfolding pandemic. More than two years into COVID-19, many studies are no longer exploring workers' experiences at a single point in time but are looking retrospectively at the different phases and waves of the pandemic, since COVID-19 began in Wuhan, China, in December 2019 (Eftekhar Ardebili et al., 2021; Koontalay et al., 2021).

The focus of these qualitative examinations, similar to those of their quantitative counterparts, is mostly on workers' challenging workplace conditions, their exposure to trauma, their ability to cope, and their resulting mental health consequences (Eftekhar Ardebili et al., 2021; Fontanini et al., 2021; Koontalay et al., 2021). However, in contrast to the prevalence-oriented findings from quantitative studies, the findings from qualitative studies provide a deep understanding of front-line workers' lived

experiences and views, and their authentic emotional and psychological states. Findings from this research supplement quantitative research findings, in that they give rich real-life background to many statistical findings (Eftekhar Ardebili et al., 2021).

There are a limited number of qualitative investigations into the healthcare workforce during COVID-19. Therefore, these investigations can only provide a reliable account of what is qualitatively known about healthcare workers' experiences during a pandemic in conjunction with qualitative investigations into previous pandemics. Looking at the qualitative literature on any pandemic, it is apparent that diversified, specific, and in-depth knowledge about a range of experiences already exists and calls for further study. Examples of these experiences are feelings of failure and being undervalued (Fontanini et. al, 2021), distrust and betrayal in the workplace (Koontalay et al., 2021), self-sacrifice (Eftekhar Ardebili et al., 2021), disadvantage and inadequate protection due to the unjust distribution of PPE (Hoernke et al., 2021), overwhelming media-exacerbated fear (Munawar & Choudhry, 2021), overwhelming workloads (Kang et al., 2021), as well as feelings of passion to serve humanity and country (Munawar & Choudhry, 2021).

The findings from qualitative studies into COVID-19 and preceding pandemics seem to form clusters around central themes. These themes include: healthcare workers' morality of duty including self-sacrifice, which, interestingly, is characterised by a lot of military terms evoking a sense of uniting as a front-line defence to fight a common enemy (Broom & Broom, 2016; Eftekhar Ardebili et al., 2021; Fontanini et al., 2021; Liu et al., 2020); healthcare workers' vulnerability, overload, distrust, and yet resistance in the workplace (Billings et al., 2021; Fontanini et al., 2021; Hoernke et al., 2021; Kang et al., 2018; Liu et al., 2020); healthcare workers' existential fear for themselves and loved ones in the face of a novel threat (Belfroid et al., 2018; Broom & Broom, 2016; Fontanini et al., 2021; Koontalay et al., 2021); healthcare workers' exposure to social media attention and public discourse (Broom & Broom, 2016); and healthcare workers' experiences of trauma including secondary trauma and moral injury (Fontanini et al., 2021; Koontalay et al., 2021).

Collectively, findings from these studies provide rich and in-depth knowledge of what it can be like to work as a healthcare worker during a pandemic. Many studies provide a high volume of contoured themes illustrated with abundant direct quotes from participants. An example of such a theme, *Do Not Abandon Us*, was identified by Fontanini et al. (2021) in a study into the experience of Italian nurses during the first wave of COVID-19. Fontanini et al. derived this theme from posts made on a professional nursing media platform and provided illustrating quotes of two main experiences: the surreal and dramatic experience of "being in another dimension, to have landed on another planet" (Fontanini et al., 2021, p. 243); and the warlike experience of being "sent to the frontline to fight an enemy that is stronger and more prepared than we are" (Fontanini et al., 2021, p. 243). Another example of such a theme, *Religious Coping*, was identified by Munawar and Choudhry (2021) in a

study into the experience of emergency healthcare workers in Pakistan three months into the spread of COVID-19. Munawar and Choudhry derived this theme from semi-structured interviews about coping mechanisms and provided quotes about faith-based practices of believing that "This virus too is a test from God" (Munawar & Choudhry, 2021, p. 289), and "Fear of God is better than fear of Corona" (Munawar & Choudhry, 2021, p. 289).

The overall focus of qualitative research into workers' experiences, similar to that of quantitative research, aims to inform improved risk management for workers' negative mental health outcomes and, thereby, preserve the status quo of health care, even during a pandemic. There are, however, groups of qualitative studies that differ from this focus in that their aim is to learn from the pandemic in a way that can inform workers' individual and collective growth and a positive transformation of future healthcare (Liu et al., 2020; Sun et al., 2021). Sun et al. (2020), in a qualitative study into frontline nurses' psychological experiences in China in January and February 2020, found that nurses initially experienced negative emotions, but later, and in parallel, also positive emotions, and that they grew from working under pressure. The identified areas of growth, in this study, were gratefulness and affection, self-reflection, and increased responsibility. While Liu et al. (2020), in a qualitative study into healthcare providers' experiences in Hubei, China, in February 2020, found that healthcare workers had transcendental experiences from working during the COVID-19 crisis. The identified areas of transcendence were taking pride in oneself for having the courage and ability to combat the virus, finding meaning, recognising what is important to oneself, and cherishing life.

Healthcare Workers' Posttraumatic Growth During COVID-19

A Wellness-Focused Perspective

In parallel to primarily risk-focused research into healthcare workers' negative mental health outcomes, another type of research into workers' mental health has been gaining credence. It subscribes to a wider salutogenic trend within the research into COVID-19 and moves away from a predominately disease-focused model towards a wellness-focused model. That is, it seeks distance from a still dominant medical model of mental health and associates with a holistic, salutogenic, and positive psychology perspective on human well-being (Kalaitzaki & Rovithis, 2021; Shigemoto, 2021; Stoyanova & Stoyanov, 2021; Vazquez et al., 2021; Veronese et al., 2022; Zeng et al., 2021; Zhai et al., 2021). Salutogenic and positive psychology-based research thereby emerge in both paradigms: the quantitative (Kalaitzaki & Rovithis, 2021; Moreno-Jiménez et al., 2021; Veronese et al., 2022) and the qualitative paradigm (Hyun et al., 2021).

Posttraumatic Growth Versus Sense of Coherence

The two main theoretical concepts applied by this research are a sense of coherence (SOC) (Antonovsky, 1987) and posttraumatic growth (PTG) (Calhoun & Tedeschi, 2014). While research

into SOC is primarily interested in learning why some healthcare workers seemed to stay well during COVID-19 times (Stoyanova & Stoyanov, 2021), research into PTG is interested in learning why some workers seemed to have a growth experience from working during the pandemic (Feingold et al., 2022). However, some studies investigate both concepts, SOC and PTG, in combination, to examine their interactional mechanisms and joint effects on healthcare workers' mental health (Veronese et al., 2022). Veronese et al., in a study into Palestinian healthcare workers in the West Bank, Israel, in August 2021, found that SOC and PTG, conjointly with subjective well-being (SWB), play a mediating role between COVID-19 stress and the negative mental health outcomes of trauma and burnout.

The key difference between the concept of SOC and the concept of PTG is in their inherent dynamics. The concept of SOC, similar to that of resilience, has a stabilising dynamic toward the preservation of workers' mental health while the concept of PTG has a forward dynamic toward individual transformation. Consistent with this key difference, SOC, like resilience, is typically associated with less severe traumatic stress symptoms (Gómez-Salgado et al., 2020), whereas PTG is associated with more severe traumatic stress symptoms (Aafjes-van Doorn et al., 2021). The association between PTG and more severe traumatic stress is consistent with the theory of PTG which recognises traumatic stress as the trigger for PTG to occur (Calhoun & Tedeschi, 2014). In other words, research into PTG suggests that the more severe a collective or individual traumatic experience, the higher the chances for the incidence of PTG. Calhoun and Tedeschi (2014) acknowledge that no one deserves to go through trauma and pain; however, they have found that some people do have a growth experience as a result of it.

Research into healthcare workers' SOC, in contrast to research into the experience of PTG, investigates workers' ability to stay well during the pandemic. Antonovsky (1987) defined SOC as a person's three-dimensional confidence: first, that the external and internal stimuli of human life are comprehensible; second, that sufficient resources are available to make them manageable; and third, that engaging with the demands of life is worthwhile and meaningful. To measure these three dimensions of SOC, conceptualised as *comprehensibility, manageability,* and *meaningfulness*, many quantitative studies employ national adaptations of the validated 29-item SOC Scale (SOCS) and 13-item SOC Scale (SOC-13) (Antonovsky, 1993), and the brief nine-item SOC Scale (SOC-9) (Klepp et al., 2007).

Posttraumatic Growth – Domineering Quantitative Paradigm

Research into healthcare workers' positive posttraumatic growth (PTG) during COVID-19, like the research into healthcare workers' risk for negative mental health outcomes, predominately subscribes to the quantitative paradigm (Aggar et al., 2022; Aafjes-van Doorn et al., 2021; Chen et al., 2021; Feingold et al., 2022; Mo et al., 2022; Moreno-Jiménez et al., 2021; Veronese et al., 2022). Original

studies of this research, like those into the risk for negative outcomes, typically employ cross-sectional surveys with validated Likert-type scale instruments and logistic regressions (Cui et. al., 2021; Feingold et al., 2022; Kalaitzaki & Rovithis, 2021; Peng et al., 2021).

PTG, in this body of quantitative research, is measured using national adaptations of the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) and the Posttraumatic Growth Inventory-Short Form (PTGI-SF) (Cann et al., 2010). Both scales measure a total PTG score and differentiate sub-scores for the PTG domains, *personal strength*, *new possibilities*, *relating to others*, *spiritual and existential change*, and *appreciation of life*. Other validated Likert-type scale instruments, employed by the quantitative research into PTG, are, for example, national adaptations of the Event-Related Rumination Inventory (ERRI) (Cann et al., 2011), the General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 2010), the Passion toward Work Scale (PTWS) (Lajom et al., 2018), the Professional Self-Doubt Scale (PSD) (Nissen-Lie et al., 2017), and the Working-Alliance Inventory-Short Form (WAI-SF) (Hatcher & Gillaspy, 2006). The study samples of these studies, like the samples of studies into frontline workers' negative mental health outcomes, show a high presence of the medical disciplines, mostly nurses, versus an under-representation of the allied health disciplines, including social work (Aggar et al., 2022; Cui et. al., 2021; Mo et al., 2022; Peng et al., 2021).

Many studies into healthcare workers' experiences of PTG, like those into healthcare workers' negative mental health consequences, aim to identify measures to support healthcare workers' mental health during pandemic times (Ciu et al., 2021; Feingold et al., 2022; Kalaitzaki et al., 2021; Peng et al., 2021; Prekazi et al., 2021). However, the aim of these measures is less on restoring workers' coping to pre-pandemic levels, than it is on instigating transformation and gaining new coping repertoires beyond pre-pandemic levels. In other words, this research aims to find measures that can instigate and facilitate growth experiences for healthcare workers during pandemic times. Like studies into the risk for negative mental health outcomes and resilience, studies into PTG differentiate between measures at the individual level and measures at the institutional level (Aggar et al., 2022; Peng et al., 2021).

Quantitative research into healthcare workers' experiences of PTG, consistent with the quantitative paradigm, is primarily concerned with the statistical prevalence of PTG, the associated contributing and mediating factors, and the individual and institutional measures that can positively influence PTG outcomes. Specifically, this research examines the aspects of the overall prevalence and level of PTG (Feingold et al., 2022; Kalaitzaki & Rovithis, 2021); the specific levels of PTG as they are distributed among the five PTG sub-categories: *personal strength*, *new possibilities*, *relating to others*, *spiritual and existential change*, and *appreciation of life* (Feingold et al., 2022; Peng et al., 2021); the significant internal and external contributing factors (Peng et al., 2021; Moreno-Jiménez et al., 2021); the correlations with other positive and negative mental health outcomes (Chen et al., 2021; Lyu et al.,

2021); the interactional and mitigating effects between PTG and other mental health-relevant indicators (Aggar et al., 2022; Chen et al., 2021; Lyu et al., 2021); and the individual and organisational measures to enhance healthcare workers' PTG at pandemic times (Ciu et al., 2021; Moreno-Jiménez et al., 2021).

Prevalence of Posttraumatic Growth

The experience of posttraumatic growth (PTG) for healthcare workers during COVID-19 was found to be relatively common; however, to different degrees according to PTG scores. Feingold et al. (2022), in a study into healthcare workers' PTG at a tertiary hospital in New York City, USA, during the COVID-19 spring peak in 2020 and six months thereafter, for example, found that 76.8% of healthcare workers experienced moderate-to-higher levels of PTG, which equals a ratio of almost 4-out of-5.

Across the quantitative research, the total PTG scores, and the sub-scores for the domains, *personal strength, new possibilities, relating to others, spiritual and existential change,* and *appreciation of life,* were exclusively measured by national adaptations of the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) and the Posttraumatic Growth Inventory-Short Form (PTGI-SF) (Cann et al., 2010). The Chinese adaptation of the PTGI, however, used a slightly altered format, due to the removal of one item from the domain, *spiritual and existential change*, referring to religion (Cui et al., 2021, Lyu et al., 2021). The total PTG scores of both instruments, the PTGI and the PTGI-SF, range from 0 to 105 points, with higher scores pointing to higher levels of PTG. The identified levels of PTG, from research into healthcare workers during COVID-19, range from low (Aafjes-van Doorn et al., 2021; Prekazi et al., 2021), to low-to-moderate (Kalaitzaki et al., 2021), to moderate (Peng et al., 2021), to moderate-to-high (Cui et al., 2021; Feingold el a., 2022), to high (Mo et al., 2022), according to total PTG scores.

The mean total PTG scores, identified in healthcare workers during COVID-19, range over a span width from as low as 21.60 to as high as 96.26 points out of 105 points. Examples of the mean total PTG scores are depicted in Table 3.

Table 3

Mean Posttraumatic Growth Scores

Healthcare Workers' Posttraumatic Growth (PTG) Scores During COVID-19 Examples of Mean Total PTG Scores	
21.60 (+/-11.75)	for nurses in the acute care sector in New South Wales (NSW), Australia, from September to November 2020 (Aggar et al., 2022)
47.13	for healthcare workers in Kosovo, in January 2021 (Prekazi et al., 2021)
65.65 (+/-11.50)	for frontline nurses in Wuhan, in April 2020 (Peng et al., 2021)
67.17 (+/-14.79)	for frontline nurses in China, in June 2020 (Zhang et al., 2021)
70.53 (+/-17.26)	for frontline nurses in designated COVID-19 hospitals in Henan and Hubei Provence, China, in February 2020 (Cui et al., 2021)
96.26	for frontline nurses in Hubei Province, China, from February to April 2020 (Mo et al., 2022)

The PTG sub-scores, identified in the five PTG domains, *personal strength*, *new possibilities*, *relating to others*, *spiritual and existential change*, and *appreciation of life*, differ considerably between studies. Interestingly, each study identified high PTG scores in different domains. Examples of PTG sub-scores are depicted in Table 4.

Table 4

Posttraumatic Growth Sub-Scores

Healthcare Workers' Posttraumatic Growth (PTG) Sub-Scores During COVID-19 Examples of High PTG Sub-Scores	
personal strength	at 18.87 (Mo et al., 2022)
new possibilities	at 22.01 (Mo et al., 2022), 13.38 (+/- 4.02) (Cui et al., 2021), and 12.00 (Peng et al., 2021)
relating to others	at 31.27 (Mo et al., 2022)
spiritual change	at 12.18 (+/- 4.24) (Cui et al., 2021) and 12.00 (Peng et al., 2021)
appreciation of life	at 22.61 (+/- 5.13) (Cui et al., 2021) and 22.00 (Peng et al., 2021)

Correlation of Posttraumatic Growth

The correlation of posttraumatic growth (PTG) with other mental health-relevant factors and outcomes is a central topic to quantitative research into healthcare workers' PTG at COVID-19 times. However, the ability of quantitative research to provide conclusions about the causality between its findings is limited because of its purely cross-sectional study design. To learn more about the causality between findings, qualitative and longitudinal investigations are needed, which can provide deeper insight and a better understanding of the lived experience of PTG. The need for qualitative and longitudinal research was suggested by Aggar et al. (2022), who quantitatively investigated the impact of pandemic-related stress in relation to psychological adjustment outcomes for nurses in the acute care sector in NSW, Australia. Aggar et al. found that the PTG scores of Australian nurses, as expected, were lower than those of nurses in countries more gravely impacted by the pandemic, which is consistent with the theory of PTG. They further found that PTG was linked to better psychological adjustment at the 8 to 10-month mark into the pandemic. Whereas, self-compassion, counselling, and sharing of experiences were linked to higher levels of PTG.

The correlation of PTG with other mental health influencing factors was found to be differentiated and specific. The theory of PTG identifies three factors as most relevant in contributing to the experience of PTG: a more severe traumatic experience, deliberate rumination (the process of conscious reflection), and in-tuned social companionship (Calhoun & Tedeschi, 2014). The

quantitative research into correlations of PTG frequently confirmed a strong correlation between these three factors and PTG. However, in addition to these factors, the research identified a wide range of other correlated factors. Examples of findings from quantitative research include that higher traumatic stimuli, such as fear of contagion versus high workloads, and harmonious passion (passion which includes selfcare) versus obsessive passion (passion which depletes the self) for one's work, positively correlate with PTG (Moreno-Jiménez et al., 2021); that deliberate rumination versus intrusive rumination most strongly correlates with PTG, and older age, higher level of education, higher professional title, more working years, being married, previous experience of a public health crisis, confidence about frontline work, awareness of risk, feeling prepared, and psychological intervention and training also positively correlate with PTG (Cui et al., 2021); that social support and professional self-identity positively correlate with PTG (Mo et al., 2022); that social and family support, physical discomfort such as insomnia and hair loss, and having children positively correlate with PTG (Peng et al., 2021); that higher education versus higher title, and self-efficacy, social support, subjective social support, and a positive coping style positively correlate with PTG (Zhang et al., 2021); that higher vicarious traumatisation and higher acceptance of online intervention provision positively correlate with PTG (Aafjes-van Doorn et al., 2021); that longer periods of attending to COVID-19 patients and adaptive coping skills positively correlate with PTG (Prekazi et al., 2021); and that employment in ICUs at COVID-19 designated hospitals positively correlates with PTG (Chen et al., 2021).

Research suggests that there is a dynamic association of PTG with other COVID-19-related mental health outcomes. Specifically, quantitative studies investigated the associations between PTG and burnout and PTSD (Feingold et al., 2022), PTG and resilience and burnout (Lyu et al., 2021), and vicarious PTG (VPTG) and secondary traumatic stress (STS) (Kalaitzaki et al., 2021).

Feingold et al. (2022) conducted a study into the association between PTG and burnout and PTSD for healthcare workers in a hospital in New York City, USA. They investigated this association over two waves: at wave one during the spring peak of the pandemic in 2020, and at wave two, six months thereafter. Feingold et al. found that a non-white ethnicity, COVID-19-related PTSD symptoms, positive emotions, inspiration by role models, and dispositional gratitude at wave one were independently associated with PTG at wave two; that PTG in the domain, *spiritual and existential change* at wave two was associated with a 50% lower likelihood for PTSD symptoms and a 44% lower likelihood for burnout at wave two; and that PTG in the domain, *relating to others* at wave two was associated with a 36% lower likelihood for burnout at wave two.

Lyu et al. (2021) conducted a study into the association between PTG and resilience and burnout for frontline healthcare workers in a COVID-19-designated hospital in Shenzhen, China. They investigated this association over three waves, at wave one in February 2020, wave two in March

2020, and wave three in May 2020. Lyu et al. found that the relationship between PTG and resilience is dynamic and circular; that both factors positively facilitate each other over time; and that the burnout symptom of emotional exhaustion strengthened the relationship between PTG and resilience. In other words, healthcare workers with more severe emotional exhaustion experienced higher levels of PTG, and in the following, higher levels of resilience.

Kalaitzaki et al. (2021) conducted a study into the association between vicarious PTG (VPTG) and secondary traumatic stress (STS) in healthcare workers in Greece. They investigated this association during the lockdown in Greece from March to May 2020. Kalaitzaki et al. found that the association between STS and VPTG was partially mediated by adaptive coping styles and, somewhat surprisingly, fully mediated by maladaptive coping styles. An explanation for this might be that avoidance coping and self-distraction coping create a distance from the adversity and, thereby, free the mind for more deliberate rumination to take place, which is the key determent for PTG to occur (Kalaitzaki et al., 2021). Another surprising finding was that not only deliberate rumination but also intrusive rumination, a core symptom of PTSD, was positively associated with PTG (Kalaitzaki et al., 2021). An explanation for this might be that intrusive thoughts during the pandemic surge create a need for relief and, therefore, lead to the subsequent activity of more deliberate rumination (Kalaitzaki et al., 2021). These findings suggest that for the experience of VPTG, similar to that of PTG, deliberate rumination is the key contributing factor. A factor that seems to outweigh the range of other identified correlates.

Fostering of Posttraumatic Growth

Discovering measures that foster PTG is a key aim of many investigations into PTG. The theory of PTG identifies deliberate rumination, conjointly, or together with, social support, as the key process for growing after trauma. Consistent with the theory, quantitative research has identified many measures directed at enhancing deliberate rumination and social support. These suggested specific measures to instigate and facilitate PTG processes in healthcare workers include the promotion of communication with family and friends and the provision of psychological counselling (Peng et al., 2021); the consideration of good social support, a group atmosphere, and self-efficacy stimulating training in clinical practice (Zhang et al., 2021); the investment into peer support, buddy programmes, and programmes towards meaning-making (Feingold et al., 2022); the promotion of social support systems (Mo et al., 2022); the provision of psychological treatment and guidance (Cui et al., 2021); the provision of psychological interventions (Prekazi et al., 2021); the provision of supervision (Veronese et al., 2022); the implementation of intervention programmes for successful coping strategies (Kalaitzaki & Rovithis, 2021); the provision of interventions at the individual and the organisational level that include sharing of experiences and psychological therapy (Aggar et al., 2022); the promotion of harmonious passion through the provision of more free days and

psychoeducation (Moreno-Jiménez et al., 2021); the provision of programmes for the development of coping techniques and new perspectives on adversity (Lyu et al., 2021), and the organisational encouragement of staff to embrace opportunities for growth and self-reflective activities (Barnicot et al., 2023).

The Gap in the Research

There is a paucity of qualitative research into healthcare workers' posttraumatic growth (PTG) during COVID-19 times. This research is needed to better understand the development trajectory of PTG as a lived experience for healthcare workers, and to add to the body of salutogenic knowledge about what we can learn from the pandemic. A need for qualitative research into workers' PTG has been highlighted. Aggar et al. (2022), in this context, discussed the limitations of cross-sectional quantitative research in the areas of depth and richness of knowledge, understanding of the PTG process, and insight into the sequential causality between correlating factors. Qualitative research in this area could provide the depth and richness of knowledge that is needed to better understand and effectively foster the experience of PTG in the healthcare workforce.

There are, however, several qualitative studies that identify healthcare workers' positive, transformative experiences during COVID-19, without a reference to the PTG theory (Liu et al., 2020; Sun et al., 2020).

Liu et al. (2020) conducted an empirical phenomenological study with healthcare workers from designated COVID-19 hospitals in Hubei province, China, in February 2020. They identified experiences of transcendence, the discovery of one's potential to overcome challenges, the re-evaluation of what is important in life, and the finding of new meaning. These findings seem to resonate with the PTG subdomains, *personal strength, appreciation of life,* and *spiritual and existential change* respectively.

Similarly, Sun et al. (2020), in a phenomenological study with nurses from a hospital in Henan, China, in January and February 2020, identified experiences of growth from working under pressure without applying a PTG theory lens. They quoted participants' expressions about recognising their ability to overcome almost everything, discovering meaning in their professional identity as nurses, noticing the beauty of nature and the sky, and realising feelings of enhanced affection for others. These quotes, again, resonate with the PTG subdomains; in this study, the subdomains, *personal strength, spiritual and existential change, appreciation of life,* and *relating to others* respectively.

This study project aims to contribute to the urgently needed qualitative salutogenic positioned research into healthcare workers' experiences of PTG during COVID-19. Specifically, it aims to examine PTG experiences for social workers working in healthcare settings in New Zealand. To the

best of the researcher's knowledge, no discipline-specific qualitative research into PTG during COVID-19 has been conducted on social workers working in the health sector in New Zealand.

Ultimately, the goal of this research project is to add to the emerging body of salutogenic positioned knowledge about healthcare in general, and the healthcare workforce in particular, during the COVID-19 crisis. This knowledge constitutes a shift away from a focus on negative consequences to understanding what the COVID-19 pandemic can teach us. This knowledge is needed to inform new measures, at the individual and the organisational level, that can support healthcare workers to not only 'bounce back' from the pandemic but move forward from it. Looking at COVID-19 as a health emergency, and, at the same time, as a 'teacher' can be useful for the development of our healthcare systems internationally and beyond the COVID-19 crisis.

Methodological Design

Methodology

Qualitative Research Paradigm

This study project is a qualitative exploration of social workers' experiences of posttraumatic growth (PTG) (Tedeschi et al., 2018), working in healthcare in New Zealand, during the COVID-19 pandemic. It is situated within a qualitative research paradigm (Braun & Clarke, 2013) and the social constructionism framework of reality (Berger & Luckman, 1967; Burr, 2015). In alignment with the qualitative research paradigm, the subjectivity and contextuality of human perceptions and interpretations are appreciated; and the existence of multiple realities within us and within the world around us is recognised (Braun & Clarke, 2013). The notion of subjectivity extends to both the participants and the researcher, with a requirement for the researcher to be visibly positioned within the research.

This study qualifies as experiential qualitative research because its emphasis was put on participants' subjective experiences, views, interpretations, and meanings (Braun & Clarke, 2013). In other words, the motivation of the study was "to 'get inside' people's heads as it were" (Braun & Clarke, 2013, p.33) to capture people's authentic contextual accounts and meanings and to let these accounts and meanings speak for themselves within an organising interpretive framework. The theoretical lens for interpretation was posttraumatic growth (PTG) theory (Tedeschi et al., 2018). This experiential qualitative research design inherently levelled the power balance between participants and researcher and democratised the research process.

The Ontology of Relativism and the Epistemology of Social Constructionism

This study was based on the ontological position of relativism and the epistemological position of social constructionism. The ontological position of relativism, in contrast to positivism, refuses the idea of a single true reality but, instead, assumes the existence of many socially constructed realities which change over time and are defined by context (Braun & Clarke, 2013). Concurrently, the epistemological position of social constructionism assumes that the production of knowledge is not a form of discovery about a single true reality, but a form of construction, co-construction, and creation of reality (Braun & Clarke, 2013). Social constructionism is based on Berger and Luckman's (1967) concept of a social construction of reality. This concept has evolved over the last 50 years and was deepened by the influences of other theories such as communicative constructivism, sociological valuation and evaluation, and practice theory (Pfadenhauer & Knoblauch, 2019).

The Active Role of the Researcher and Reflexivity

Within qualitative and social constructionism-based research, a researcher is recognised as an active player in the research process; a player, who decisively influences the research process from beginning to end (Braun & Clarke, 2013; Burr, 2015). However, to ensure the integrity of knowledge production, the researcher's influence must be overtly addressed and made visible at all phases of the study process (O'Leary, 2017). In order to do this, Burr (2015) asked the researchers to recognise their intrinsic partaking in the study process and, most importantly, to perform reflexivity at all phases of the study. This is to ensure visibility of how the researcher's involvement will have influenced the study findings. Because of the significance of this influence, Burr (2015) advised: "The researchers must view the research as a co-production between themselves and the people they are researching" (p.172).

To adhere to this demand for transparency and reflexivity on the part of the researcher, I engaged in critical reflection, self-disclosure, and reflexivity at all stages of the research process. This included keeping a reflexive research journal; utilising academic supervision to reflect on the influence of personal values and experiences, such as previous trauma, on the research process; using professional supervision to reflect on personal stresses and coping mechanisms in the context of COVID-19; attending individual sessions with the Massey University academic support service to reflect on the integrity of the academic communication of this research; and, performing reflexive self-disclosure as part of the analysis and discussion of this research. Comments about my positioning as the researcher within this study are included in the analysis and discussion chapter in conjunction with the respective items they refer to.

Insider Researcher Status

In qualitative and social constructionism-based research it is also important for the researcher to maintain transparency about the degree to which he or she presents with personal experience in relation to the research topic (O'Leary, 2017). This transparency is critical for the integrity of knowledge production. Researchers who themselves are affected by the topic of their research, are not only likely to present with more insight into the field of their investigation but also with more bias. A researcher, who shares, wholly or partly, the experience of the research phenomenon is assigned insider researcher status (O'Leary, 2017). I was assigned insider researcher status, as I am a registered social worker in New Zealand and was working in a tertiary hospital during the COVID-19 pandemic. The insider researcher status was declared in the human ethics application for this study, was included in my self-reflection and reflexivity during the study process and was disclosed to participants before their interviews were held.

Reflexive Thematic Analysis

The methodological design of the study is that of a reflexive thematic analysis based on that proposed by Braun and Clarke (2013). In keeping with Levitt et al. (2017), this design was chosen in respect of its utility in achieving the study goal of this project. Reflexive thematic analysis has high utility for studies that aim to explore an experience from the participants' perspectives, including the ways participants make sense of their experience and make meaning (Braun & Clarke, 2013). This utility extends to studies with a primarily experiential focus and studies with a primarily theoretical-interpretive focus.

In this study, the goal was to explore and understand the experience of PTG (Tedeschi et al., 2018) for social workers working in healthcare in New Zealand during COVID-19. This goal has two components: an experiential component and a theoretical-interpretive component. Therefore, the study was placed in a fluid continuum between an explorative and inductive semantic focus of analysis and an interpretive focus of analysis. The explorative and inductive semantic focus is the participants' descriptions of their experience in their own words; the interpretative focus is the researcher's interpretation of what was said through a specific theoretical lens (Braun & Clarke, 2013). Combining an explorative and inductive semantic focus and an interpretative focus of analysis in this study, enabled authenticity and 'true to the experience' data finding about the lived experience of the theoretically conceptualised phenomenon of PTG (Tedeschi et al., 2018).

Two psychologists, Braun and Clarke, are the authors of the methodology of reflexive thematic analysis. They first published their approach to thematic analysis (TA) in 2006 (Braun & Clarke, 2006), which they have continued to develop. Braun and Clarke (2013) understand subjectivity as an essential part of qualitative research, highlighting that "we, as researchers, bring our own histories, values, assumptions, perspectives, politics and mannerisms into the research" (p. 49). In concurrence

with Burr (2015), Braun and Clarke (2013) place high importance on the researcher's reflexivity during the research process. They distinguish between functional reflexivity about how the study methods might have influenced the study findings and personal reflexivity about how the researcher might have personally influenced the study findings.

I chose individual online semi-structured interviews for data collection. From the perspective of functional reflexivity, this choice of method advanced the depth and richness of data generation. This effect was further strengthened by using a semi-structured interview guide, allowing for high flexibility and a participant-centered, empathic, and accepting interview style. From the perspective of personal reflexivity, this choice of method appealed to me, as I have extensive training and experience in providing conversation-based social work interventions.

However, my professional skill and knowledge base in the area of therapeutic conversations also was recognised to pose a risk of role confusion between the role of a researcher and the role of a counsellor in this study. This risk was addressed by careful monitoring of the boundaries between the two roles including during mock interviews with my academic supervisors, the actual research interviews, and critical reviews of the recordings of the interviews.

Methods

Purposive Sampling

A purposive study sample of six registered social workers, who worked in physical healthcare settings in New Zealand during COVID-19, was recruited over four months, from 01 March 2022 to 30 June 2022. The reason for this prolonged recruitment was an overall slow recruitment response which might have been a result of the narrow focus of the sampling for this research. To provide rich, substantial data for analysis, participants were not only required to have worked in a physical healthcare setting during COVID-19 but to also have experienced a transformation and be willing to share this deeply personal experience for research purposes.

The purposive recruitment was conducted via the Aotearoa New Zealand Social Work Association (ANZASW) internet page and social media platform (see Appendix G), via my professional network, and snowballing. The specific recruitment criteria included having a minimum of three years of experience working in a physical health setting; having worked in healthcare during COVID-19 and its related lockdowns in New Zealand; and not currently receiving psychiatric treatment for an acute mental health issue. The latter criterion was included to mitigate a potential risk of discomfort and harm to participants as a result of their participation in this research. This exclusion was based on the consideration that any conversation about a potentially traumatic experience might trigger re-traumatisation and that the risk for harm from this might be higher in participants with an acutely increased mental health vulnerability.

During the recruitment process, it was left up to potential participants to self-identify whether participation in this research was indicated. This form of identification was considered appropriate as the professional pool of social workers in New Zealand holds professional registration, is accustomed to critical self-reflection and reflexive analysis during supervision, and is familiar with the concept of psychological trauma.

Demographic Data

An anonymous demographic form was completed by all participating social workers before the interviews were held (see Appendix D). The form had a tick box format and asked for information about the age, ethnicity, gender identification, sexual orientation, relationship status, children, years of practice as a social worker, type of healthcare setting, and previous trauma. The demographic data was not gathered for statistical purposes but purely to describe the cultural space inhabited by the study sample. It was relevant to assign qualifying diversity data to the sample to adequately limit the potential transferability of the study findings (Braun & Clarke, 2013; O'Leary, 2017).

Individual Online Interviews With a Semi-Structured Interview Guide

Within the methodological design of a reflexive thematic analysis based on Braun and Clarke (2013), this research project employed the method of individual online interviews with a semi-structured interview guide for data generation (see Appendix F). Based on the research guidelines of Braun and Clarke, a sample of six participants was recruited to take part in a single online interview. All six participants were registered social workers who had been working in a healthcare setting in New Zealand during COVID-19. The first outbreak of the pandemic occurred in New Zealand on 28 February 2020 with the first nationwide lockdown being imposed on 26 March 2020.

Most interviews took an hour or less, one took a little more than an hour. The interviews were held via a professional Zoom account using Massey University's digital network. The interviews were video-recorded and real-time transcribed by the Zoom transcription facility. The transcripts were carefully proofread against the recordings and anonymised by the researcher, which included the use of pseudonyms and the removal or replacement of all identifying detail. The anonymised verbatims were the data items that formed the dataset for analysis in this study.

The interview style was participant-centered, empathic, respectful, and level-headed. This interview style was chosen as it is a good fit to honour the experiences of the study participants and to obtain rich and in-depth personal accounts. I used open-ended questions, reflections, and summaries to enable a free flow of exploration, while loosely following a semi-structured interview guide. The goal of the interviews was to obtain deeply personal accounts and views about what it was like to experience PTG as a social worker working in healthcare during the COVID-19 pandemic. I minimised leading questions by, for example, not directly inquiring about the five domains of PTG

(Tedeschi et al., 2018) but instead about any experiences of transformational growth. At one interview, I probed for growth experiences within each of the five domains of PTG at the end of the interview. The direct inquiry did not yield new information to what was already identified during the interview.

Reflexive Thematic Analysis

A reflexive thematic analysis based on Braun and Clarke (2013) was undertaken via the coding of meaning units and the development of a pattern-based, interpretative thematic framework. The coding of meaning units, also referred to as single ideas or aspects, was continued until saturation was reached and no new meaning units were identified. Closely following Braun and Clarke's approach, the identified codes were clustered into themes, also referred to as central organising concepts, the building blocks for the construction of a thematic framework. The identified thematic framework, in this study, consists of five themes, seven subthemes, and two overarching themes across the dataset. The themes, at all three levels, were identified in view of the study objective (O'Leary, 2017) and through the lens of PTG theory (Tedeschi et al., 2018). The subthemes are aligned with the central organising concept of the respective theme they vertically relate to and emphasise distinct aspects of this concept.

An example of an identified theme with two related subthemes, in this study, is the theme I *Am a Social Worker, It's Who I Am*. This theme represents the central organising concept of participants' identification with their social work profession, its culture, values, and theoretical concepts. This theme was created by a combination of codes such as *I Run out of My Social Work Value Base, I Love My Job, Social Work is Inherently Positive, I Deeply Care, We Understand Trauma, We Understand Resilience and Self-Care, Social Work Is All About the Right of Self-Determination*, and *Social Work Is My Passion.* The theme *I Am a Social Worker, It's Who I Am*, has two subthemes that emphasise distinct aspects of participants' identification with their profession. These subthemes are called:

- *Supervision Is Brilliant*, focusing on the usefulness of reflexive social work supervision.
- *We Are There for Each Other*, focusing on the recognised importance of collegial support.

The analytic process, in this project, was based on the constant review, reflection, comparison, and going back and forth over the dataset; and involved the refining of codes, themes, the thematic structure, and the coherence of the narrative that is told about the data in this study and speaks to the study objective (Braun & Clarke, 2013). The software program NVivo 20 was used for the qualitative data analysis.

Combination of Analysis and Discussion

After an organising thematic structure was identified with the help also of visual mind mapping on the NVivo 20 program, the core findings of the study were abstracted into a coherent narrative to authentically depict what it meant to experience PTG as a social worker working in healthcare in New Zealand during COVID-19. The analysis and the discussion of this study were combined into one coherent story to present the data and answer the research question. The combination of analysis and discussion minimised repetition, enabled an integrated flow of analysis and simultaneous interpretation, and led to a line of argument in relation to the study objective (Braun & Clarke, 2013). The voices of participants have been included to illustrate the data categorised by each theme and to provide the basis for analytic interpretation. Participant quotes were cleaned up by removing repetitions and hesitations and some of the less relevant passages contained within quotes.

Ethics Approval

This research project was granted full ethics approval by the Massey University Human Ethics Northern Committee in Auckland, New Zealand, on 06 December 2021: NOR 21/70 (see Appendix A). It upholds the biculturalism of New Zealand, the obligations of Te Tiriti o Waitangi, and the core values of the Māori ethics framework of Te Ara Tika (Hudson et al., n.d.). It observes the principles of partnership, participation, and protection of Te Tiriti o Waitangi.

The Māori ethical framework makes it paramount for research in New Zealand to be directed at collective welfare (MUHEC, 2017). In alignment with this expectation, as well as the principles of benefit, justice, tika, and mana, this research project aimed to contribute to the knowledge required to inform our future pandemic response strategies, in New Zealand and globally, for the collective welfare of all.

The ethical principles of autonomy and manākitanga were observed by providing a participant information sheet (PIS) (see Appendix B) and a consent form (see Appendix C) during the recruitment process for this study. The PIS included information about the topic of PTG, the aim of the study, and the potential risk of temporary psychological discomfort because of participation. In addition to this, the PIS included information about participant anonymity, privacy and confidentiality, voluntariness, safe digital data management, the return of interview recordings and transcripts for review, and the option to withdraw from the study until one week after the interview.

Participant anonymity and confidentiality, in this study, were realised by anonymisation of the interview transcripts. This included the use of pseudonyms which were chosen by the participants themselves, if wanted, and the removal or replacement of any potentially identifying detail. Safe digital data management was ensured by using a password-protected computer for data processing and Massey University OneDrive for secure data storage and backup storage. The digital data of this

project will be destroyed five years after the publication of this research thesis to allow for further publication in the format of a peer-reviewed journal article.

The ethical principles of avoidance of harm, manākitanga, special relationships, and whakapapa were observed by employing a respectful, participant-centered, culturally sensitive, and level-headed interview style; by scheduling the interview times according to participant preferences; by providing a small recognition in the form of a $20 voucher; by providing the published paper, or otherwise a summary of the study findings, at the end of the study; by having access to expert Māori cultural consultancy via Mātauranga Pūkenga Tangata and He Kamaka Waiora - Māori Health; and by satisfactorily addressing the risk of discomfort to both participants and the researcher, present in any conversation about potentially traumatic experiences, even amongst professionals.

The risk of discomfort, in this study, was mitigated by addressing the risk for distress and potential re-traumatisation with participants at the beginning of each interview; by offering pauses and a postponement of the interview if distress should occur at any point during the conversation; and by providing a list of sources of support including the New Zealand Mental Health Foundation free recourses if the discomfort should not pass but persist after the interview (see Appendix E). The list of sources of support also included a reference to the option for participants to reflect on their experience during their professional supervision. Two participants expressed vivid negative memories and a sense of distress during the interview. Both felt able to cope with their discomfort, expected it to be temporary, and wanted to continue with the interview. One described the interview as a positive and somewhat cathartic experience and the other one commented positively on the opportunity to tell her story and be heard.

Trustworthiness and Dependability

My competence to undertake this project was gained through extensive professional experience as a social worker providing conversation-based interventions. Drawing on this expertise, I was able to listen empathically and, simultaneously reflect on the analytical ideas contained in the interviews. This skill mix was useful to produce the “thick” and complex data that was sought to address the research objective of exploring the experience of PTG. The academic supervisors of this project were able to provide adequate supervision based on their expertise as doctoral supervisors at Massey University.

Locating the Researcher

Personal Alignment With the Qualitative Paradigm

I align with the qualitative research paradigm, the ontological position of relativism, and the epistemological position of social constructionism from the wider perspective of a spiritually open Christian belief. In other words, I appreciate relativism and social constructionism as useful working

models considering the impossibility of comprehension of the divine truth. In alignment with this primarily spiritual worldview, I subscribe to a holistic, positive, and trauma-informed view of human healing and growth.

Personal Relationship With the Research Topic of PTG

I also align with the principle of PTG (Tedeschi et al., 2018) based on personal experiences of growing from trauma. I have a personal life story of early childhood trauma in relation to the death of a parent with cancer and psychological healing thereafter through engagement with psychotherapy and art. Based on this experience, I have an interest in exploring experiences of transformational growth following a traumatic experience.

During COVID-19, I worked as a frontline social worker in a hospital in New Zealand and experienced first-hand the impacts of the pandemic on the healthcare workforce. This experience, and my personal struggle of making sense of it, directed my interest to want to explore how other social workers made sense of their experiences working during the pandemic. Using the theoretical lens of PTG theory (Tedeschi et al., 2018) for this study was a natural choice because the theory of PTG aligns with my personal worldview and positive orientation towards learning from trauma. I have insider researcher status because of this close involvement with the study topic.

Critical Reflection

The methodological design of the study proved a good fit to answer the study question about PTG experiences for social workers in healthcare during COVID-19. The interviews ran smoothly, were well timed within the planned duration of 60mins, and were without technical error. They achieved significant depth and were positively commented on by many of the study participants. Equally, the thematic analysis, with the aid of the digital program NVivo 20, ran smoothly and without technical difficulty. The NVivo 20 program proved user-friendly and made the management of larger data volumes an easeful task. With the use of NVivo 20 features such as visual mind maps and structured codebooks, the analysis in this study became an inspiring creative process that identified rich and diverse codes and a coherent thematic structure in relation to the study objective.

However, unfortunately, during the heavy rainfall and flooding in Auckland on 28 February 2023, a sync problem occurred with the Massey University OneDrive that caused a temporary disappearance of all research data of this study for almost two weeks. This was a distressing experience that made me realise how vulnerable we are in our dependence on digital technology.

A challenge for this study lies in the area of its positioning within the current literature; a challenge that was caused by the global actuality of the topic of COVID-19 at the time of this research. This actuality made it difficult to pinpoint a conclusive understanding of what was known about positive

outcomes for healthcare workers during COVID-19. While the early stages of the research were characterised by a paucity of literature on any aspects of COVID-19 and a reliance on research findings on previous pandemics, the later stages of the research were characterised by an abundance of publications on COVID-19 globally.

Theoretical Framework: Posttraumatic Growth Theory

The theoretical framework of this study is based on Tedeschi and Calhoun's posttraumatic growth (PTG) theory (Tedeschi & Calhoun, 1996). I have chosen a PTG perspective to explore social workers' experiences working in healthcare during the COVID-19 pandemic in New Zealand. This means that the focus of this research is not merely deficit oriented, toward exploring negative mental health consequences, but is salutogenically orientated toward exploring positive and rewarding outcomes for social workers working during the pandemic. In other words, the study explores what good may have come out for social workers themselves working in healthcare settings during COVID-19.

The salutogenic perspective on the exploration of outcomes from working in adverse circumstances generally applies three distinct concepts: resilience (Southwick & Charney, 2018), sense of coherence (SOC) (Antonovsky, 1987), and posttraumatic growth (PTG) (Tedeschi et al., 2018). These concepts have very different orientations: Resilience is oriented toward workers' ability to cope, adapt, and recover; SOC is oriented toward workers' ability to remain well at adverse times; and PTG is oriented toward positive transformative change as a result of experiencing adversity.

This salutogenic-positioned qualitative research project subscribes to the third concept, the concept of PTG. That is, the study uses PTG as its primary theoretical lens for data collection, analysis, and interpretation. It aims to explore social workers' experiences of positive growth triggered by pandemic-related stress from their perspectives.

In alignment with the constructionism tradition of the overall design of this research, the theoretical lens used for data analysis and interpretation also conforms to a constructionism perspective: Posttraumatic growth (PTG) theory is based on the fundamental concept that people construct their assumptive worlds, which are the core beliefs they hold about themselves and the world they live in, based on their personal experience, life story, and frame of reference (Tedeschi et al., 2018).

PTG theory was first developed in 1996, by the American psychologists Dr Richard G. Tedeschi and Dr Lawrence G. Calhoun (Tedeschi & Calhoun, 1996). From there, it was continuously further

refined by its authors and intensively researched, initially mainly in the military population and with parents who were grieving the death of a child. Tedeschi and Calhoun's work has led to many publications until the present and has found wide recognition in the research community internationally (Calhoun & Tedeschi, 2014; Tedeschi & Calhoun, 2004). Research into PTG has now been conducted by a high number of researchers and with a wide range of populations, including populations exposed to the pandemic of COVID-19.

The core notion of the theory, transformational growth from suffering adversity, goes back as far as human history and finds reflection in many of the world's religions, philosophies, and art forms. It is associated with a holistic worldview, a multidimensional understanding of human existence, and a salutogenic perspective on human healing (Tedeschi et al., 2018). The theory of PTG conceptualises this form of transformational growth from adversity as PTG. PTG is defined as "positive psychological changes experienced as a result of the struggle with traumatic or highly challenging life circumstances" (Tedeschi et al., 2018, p.13).

The theory of PTG defines the term trauma, in this context, broadly as a "highly stressful and challenging life-altering event" (Tedeschi et al., 2018, p.14). This means that trauma is not conceptualised as an external event but as an internal experience in response to an event. This also means that the decision about whether an event qualifies as traumatic is placed into "the eyes of the beholder" (Tedeschi et al., 2018, p.15). Tedeschi et al. (2018), in their publications, often use the term traumatic event interchangeably with synonyms such as, for example, the term major stressor. PTG theory recognises that a traumatic experience can happen in response to a single event or in response to stressful circumstances experienced over some time.

The theory of PTG conceptualises trauma from a constructionist perspective: A traumatic experience involves, at least in part, the destruction of an individual's assumptive world and the reconstruction of a new assumptive world thereafter (Tedeschi et al., 2018). That is, a traumatic experience involves a serious questioning or shattering, at least of some of a person's core beliefs about the self and the world we live in, and a reconstruction of new core beliefs from the ruins thereafter (Tedeschi et al., 2018). If these new core beliefs are more sophisticated and 'better' than the old ones, we see PTG.

PTG, however, is not a one-time achievement, but a longer-term positive transformation. It happens in the aftermath of a traumatic experience and can continue for weeks or years and, sometimes, a lifetime (Tedeschi et al., 2018). As a process over time, PTG involves changes in perceptions, emotions, thoughts, and behaviours. The critical momentum of transformation distinguishes PTG from the concepts of resilience (Southwick & Charney, 2018) and sense of coherence (SOC) (Antonovsky, 1987). The distinction is that these concepts, in essence, are not concepts of transformation, but concepts of resistance and stability. Tedeschi et al. (2018), in this context, refer to

resilience as a form of bouncing back from an adverse experience, and PTG as a form of bouncing forward because of it. While the concept of resilience allows, or even aims, for a return to one's level of functioning pre-trauma, the concept of PTG requires the very impossibility of such a return and, therefore, the necessity for transformation. Tedeschi et al. describe the relationship between PTG and resilience as sequential, with PTG being seen as a process that can lead to future resilience.

PTG happens as a result of an individual's fight to somehow survive or cope with a highly distressing event or highly distressing circumstances over time. However, it is not the immediate intuitive reaction at the peak of the crisis that can instigate PTG but the processing of the experience thereafter (Tedeschi et al., 2018). Tedeschi et al. (2018) identify deliberate rumination as the single most important activity for PTG to occur. In other words, it is not the intrusive thoughts triggered by traumatic stress in a state of heightened emotion and affect that can cause positive transformation, but the subsequent more deliberate rumination and reflection. This deliberate rumination is not usually consciously directed at growing but rather is directed at somehow making sense of a highly disturbing life-changing experience.

While Tedeschi et al. identify deliberate rumination as the main activity to affect PTG, they recognise that the transformative process of growing involves the interaction of emotional, behavioural, social, spiritual, and environmental components. In this context, Tedeschi et al. acknowledge the influences of a wide spectrum of psychological theories on the development of PTG theory. Examples of these theories are cognitive psychology, development psychology, humanistic psychology, narrative psychology, health psychology, trauma psychology, social psychology, and clinical psychology.

The theory of PTG identifies five distinguished domains in which growth can be observed in the aftermath of a highly distressing event. These domains are defined as *personal strength, relating to others, new possibilities, appreciation of life,* and *spiritual and existential change* (Tedeschi et al., 2018). Examples of growth in these domains involve realisations of one's ability to overcome assumed limitations in the domain of *personal strength*; new and more positive attitudes toward others in the domain of *relating to others*; changes in career paths in the domain of *new possibilities*; changes in priorities in life in the domain of *appreciation of life*; and new meaning in the domain of *spiritual and existential change*.

The validated Likert-type scale instruments to measure PTG in quantitative research are the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) and the Posttraumatic Growth Inventory- Short Form (PTGI-SF) (Cann et al., 2010). Both scales measure specific PTG scores for each of these five domains, plus a total overall PTG score. Both scales reach from 0 to 105 points. Tedeschi et al. (2018) do not set a cut-off number for PTG to be identified, but rather state that as

soon as a person reports growth in at least one of the domains, which is important to the person, the researcher should view this as the occurrence of PTG.

The individual trajectory of a person's PTG process is highly complex, multifactorial, multidimensional, and unique. Particular influencing factors affect the nature and direction of the individual's PTG journey. Tedeschi et al. (2018) consider that the major PTG influencing factors involve the severity or centrality of a distressing event and its ability to cause a rift in a person's schemas; the person's intrapersonal dispositions, such as pre-existing trauma, emotional orientation, and coping mechanisms; and the person's interpersonal influences including their quality of relationships and communication.

However, PTG was also found to be a universal experience across cultures, and not uncommon among people who have gone through trauma (Tedeschi et al., 2018). In this context, it is important to understand that PTG is not situated at the opposite end of the spectrum from PTSD; both experiences, PTG and PTSD, can concurrently coexist within a person following a life-changing traumatic event (Tedeschi et al., 2018).

The most recent version of the PTG model has nine elements (Tedeschi et al., 2018): 1) the individual before the event, 2) the traumatic or seismic event, 3) high emotional distress and challenges, 4) automatic intrusive thoughts, 5) increased coping and some relief, 6) deliberate reflection and rumination, 7) social support ideally from an expert-companion who knows how to listen and to simply be there, 8) PTG, and 9) residual traumatic stress including, in some cases, PTSD. Tedeschi et al. (2018) suggest that higher traumatic stress may lead to more severe disruptions to a person's core beliefs and more severe intrusive thoughts, and to more deliberate rumination and more profound transformative change in the long run.

There is, however, some debate on whether there is real PTG versus illusional PTG, with real PTG being a self-transcending experience, and illusional PTG being merely a self-deception to make one feel better at challenging times (Tedeschi et al., 2018). Tedeschi et al. (2018), in this regard, highlight that in the absence of an objective instrument to measure PTG, this question cannot be answered with certainty. PTG-related research in both the quantitative and the qualitative realm, depends on people's self-reports. Its findings, therefore, will have to leave room for the possibility that some reports might rather qualify as self-talk than as authentic realisations of profound transformational change. However, this type of uncertainty is perhaps true of all psychological and social science research, and the human condition.

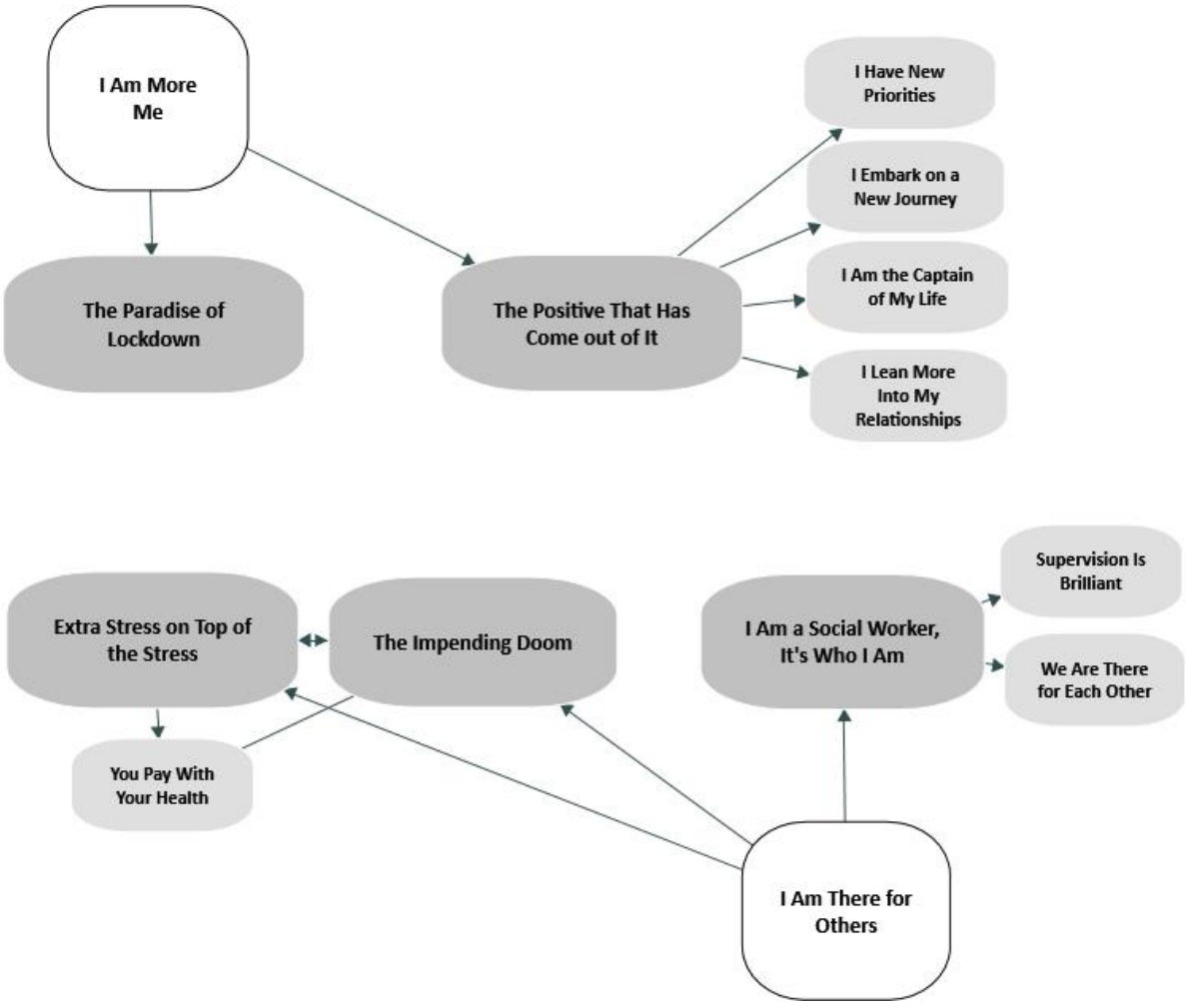
Analysis and Discussion

Thematic Structure

The thematic analysis of this study on posttraumatic growth (PTG) for social workers working in healthcare in New Zealand, during COVID-19, identified a hierarchical thematic structure comprised of five themes, seven subthemes, and two overarching themes. A map of this thematic structure is depicted in Figure 1.

Figure 1

Thematic Structure



Key: Themes Are Depicted as Rectangles; Subthemes as Smaller Rectangles; Overarching Themes as Squares. A Single-Directional Arrow Indicates a Hierarchical Relationship Between Themes; a Bi-Directional Arrow a Lateral Relationship Between Themes; a Simple Line an Associative Relationship Between a Theme and a Subtheme of Another Theme.

Each theme, based on Braun and Clarke (2013), has a central organising concept that conflates different codes or ideas in relation to this concept. Three of the themes have subthemes, which contain specific aspects of the theme they relate to, while the overarching themes capture poignant ideas that are contained in several themes and subthemes. The two overarching themes *I Am There for Others* and *I Am More Me* group the themes of this study into two main clusters.

Theme Definitions:

I Am There for Others

The overarching theme *I Am There for Others* locates the participants' (vocational) purpose in the service to others. The social workers participating in this study constructed the concept *I Am There for Others* with an ambivalence between positive and negative manifestations: as a meaningful principle that puts patients' needs at the centre of their social work practice; a responsibility and duty that extends to the realm of self-sacrifice; and an unrewarding state of self-neglect with negative health and mental health consequences.

The theme *I Am a Social Worker, It's Who I Am* expresses a positive identification with the social work profession and its culture, values, and practices on the part of the participants. This identification includes a positive appreciation of social workers' typical reflexivity during supervision, captured in the subtheme *Supervision Is Brilliant;* and includes a positive appreciation of the power of peer support, captured in the subtheme *We Are There for Each Other*.

In correlation with this positive identification with the social work discipline, participants constructed a pandemic-related challenge characterised by extra stresses and novice existential fears. This challenge is captured in the two closely linked themes *Extra Stress on Top of the Stress* and *The Impending Doom.* Included in this challenge is a perceived risk to the participants' health from working during the pandemic, captured in the subtheme *You Pay With Your Health*. The subtheme *You Pay With Your Health* is a vertical subtheme of the theme *Extra Stress on Top of the Stress* and is horizontally linked to the theme *The Impending Doom.*

From the perspective of posttraumatic growth (PTG) theory (Tedeschi et al., 2018), the theme *I Am a Social Worker, It's Who I Am* is associated with PTG-instigating factors, and the themes *Extra Stress on Top of the Stress* and *The Impending Doom* are associated with challenges to participants' core beliefs about the self and the world we live in.

I Am More Me

The overarching theme *I Am More Me* explains an enhanced sense of self and self-identity on the part of the participants. The social workers participating in this study constructed the concept *I Am More Me* as a positive and nuanced phenomenon of personal transformational growth which manifested in different facets of the self. These facets included the areas of personal strength and agency in one's life; of self-worth, self-awareness, and awareness of one's own needs; of self-actualisation and self-determination; of self-sufficiency; and of relating to others.

The theme *The Positive That Has Come out of It* captures a reflective realisation on the part of the participants that a personal transformational growth experience had occurred as a positive result of their struggle with the challenges of working in healthcare during COVID-19.

The participants' personal growth experiences are associated with different aspects of their lives. These aspects include personal strength and agency, captured in the subtheme *I Am the Captain of My Life*; newly invigorated relationships with loved ones, captured in the subtheme *I Lean More Into My Relationships*; new career opportunities, captured in the subtheme *I Embark on a New Journey*; and a new appreciation of life, captured in the subtheme *I Have New Priorities*.

In parallel to the construction of positive personal growth, participants constructed a paradisiacal state of being during the COVID-19-related lockdowns in New Zealand captured in the theme *The Paradise of Lockdown*.

From the perspective of PTG theory (Tedeschi et al., 2018), the theme *The Positive That Has Come out of It* represents PTG experiences on the part of the participants; and the subthemes *I Am the Captain of My Life*, *I Lean More Into My Relationships*, *I Have New Priorities*, and *I Embark on a New Journey* represent the respective PTG sub-domains of *personal strength*, *new relationships, appreciation of life*, and *new opportunities*.

Demographic Niche of the Study Sample

Demographic data were gathered in this study to describe the demographic niche that the study sample of the six social workers inhabits. The qualifying diversity data assigned to the sample describes a narrow cultural space that the participants of this study occupy. This narrow cultural space significantly limits the potential transferability of the study findings to social workers of high similarity to the study sample (Braun & Clarke, 2013; O'Leary, 2017).

All six participating social workers in this study identify as female, and the majority describe their sexual orientation as heterosexual, with only a minimal number describing their sexual orientation as bisexual. Further, all participants report their age range as either between 51-60 years of age or 31-40 years of age, with the majority belonging to the higher age group. Corresponding to their age, most participants also present with many years of professional experience as a social worker. The years of experience amongst the sample, thereby, are relatively evenly distributed between the categories of 31-40 years, 21-30 years, 7-20 years, and 3-6 years, with about half of the participants having 21-plus years of experience. Again homogenously, all participants identify their ethnicity as European, either as Pakeha (New Zealand European) or Other European (from an English-speaking country overseas). Only a minimal number of participants also identify as part Māori. The relationship status and parental status of the participating social workers also are of high homogeneity, with the vast majority of the sample being partnered or married and having children, and with only a minimal number being single or having no children. The question about earlier traumatic experiences in life was answered positively by most participants, with only a smaller number being unsure of it.

Demographic Positioning of the Researcher

For transparency, it is relevant to note that I, the researcher of this study, also present with high similarity to the study sample. I am similar to the sample in gender, identifying as female; in sexual orientation, identifying as heterosexual; in age, belonging to the 51-60 years of age group; in years of experience as a social worker, presenting with 10 years plus experience as a registered social worker in New Zealand; in ethnicity, identifying as European, however from Germany as a non- English-speaking European country; and in relationship status, being partnered. Like many of the participants, I also present with a personal history of previous trauma. The only significant demographic difference between me and the majority of the sample is in my parental status, I have no children.

Analysis and Discussion

All six participating social workers in this study, on reflection, identified at least one experience of personal transformational growth that occurred as a result of their struggle with working in healthcare during the COVID-19 pandemic in New Zealand. From the perspective of posttraumatic growth (PTG) theory (Tedeschi et al., 2018), their experiences of growth aligned with the four PTG subdomains, *personal strength*, *relating to others*, *new possibilities*, and *appreciation of life.* It was only the fifth PTG subdomain, *spiritual and existential change*, for which there was no identified experience of transformational growth. In keeping with PTG theory (Tedeschi et al., 2018), the minimum requirement for an experience of transformational growth to be identified is its presence in one of the five PTG subdomains. This means, that all six participants in this study experienced PTG as a result of their work in healthcare during the challenging times of COVID-19.

Demonstrations of how reported growth experiences align with the PTG subdomains are, for example, Angelica's experience: "For me, I guess, one of the positives is, it has actually shown me how strong I actually am, yeah", aligning with the PTG subdomain, *personal strength*; Jenny's experience: "I'm conscious of connecting more with, in particular, my siblings, yeah, very much so", aligning with the PTG subdomain, *new relationships*; and Poppy's experience: "I think that experience made me reassess my priorities, and I think, actually, … my own health and my family's wellbeing, uhm, at that point in time, you know, I just, uhm, wanted to put them first", aligning with the PTG subdomain, *new appreciation of life*.

Theme: I Am a Social Worker, It's Who I Am

The theme *I Am a Social Worker, It's Who I Am* captures the construction of a strong and positive identification with the social work profession that was present across the dataset of this study. Some of the participating social workers expressed this identification directly:

Camia:

> Coming into this role, for me, was also about proving to myself who I am as a social worker, … uhm, it's intrinsically who I am, I'm a social worker because it's an extension of my value base. It's who I am. It's, I don't know how to be anything else.

Poppy:

> I guess, it reminded me, perhaps, how dedicated, uhm, I mean, I think social work in general, I kind of, not have a love-hate relationship, but it can be very draining, very taxing and you can, uhm, often get little, sort of, I guess, reward from it, but I keep coming back to doing it, and whenever I consider doing anything else, I always come back to social work.

These comments are more than factual statements about memberships in a particular discipline. They are conscious reflections about a deeply situated, meaningful, and in Poppy's case, tense identification with the social work profession. Another participant, Angelica, described her relationship with social work differently: "I think I identify as a healer, you know, as a social worker, because I've always worked in health". In her case, her professional identification exceeds her role as a social worker. She identifies as a healer and places her social work profession within this bigger concept of a life purpose.

The reflective nature of the participants' comments about their identification with social work also shows something else: an inclination to engage in reflection and self-reflection. This inclination might naturally lean toward the process of deliberate rumination in the aftermath of a highly challenging life experience; the activity identified as the single most important activity by which PTG is achieved (Tedeschi et al., 2018).

Participants' comments about their identification with the social work profession in this study were accompanied by many declarations of love for the work as a social worker, and the work as a social worker in healthcare. The term love was used by Angelica: "I love my role as a social worker", by Camia: "Try to find a different job in the middle of a pandemic, when where I really love to be, is in health"; by Poppy: "You know, work is important, and I love my job", and by Nadine: "Yeah, aside from the fact, I love my job, just not the people I work for". This consistently positive emotional relationship with the profession of social work became further apparent in a reflection by Poppy about how she had become more aware of her passion for social work and her client population during the pandemic:

Poppy:

> I think that experience, I guess, might perhaps have reminded me that it is something I'm very passionate about because you can't not be passionate when you're putting yourself, uhm, yeah, when you're driving to work in that circumstance of, you know, literally, nobody else is going to work that day, you're the only one on the road. So, I guess, it reinforces the passion for the work or, you know, the field of social work, uhm, but also, for me, for families with children … the particular clients that I'm working with.

Poppy, in this comment about her passion for social work, makes a point about the passion she felt for the particular client group she worked with: families with children. This passion for her patients aligns with one of the consistently identified aspects across the dataset of this study: deeply caring for patients. For some of the participants, deeply caring for patients also involved the temporary stretching of professional boundaries to meet their patient's needs during the pandemic and related lockdowns and social distancing requirements:

Jenny:

> I've struggled with that mentally, uhm, what was happening to some of those clients out there as well. And you worry about people, uhm, and it was, yes, we could keep in contact by phone, but it was, it was very difficult, uhm, down the phone line.

Angelica:

> I found myself doing a grocery shopping for her [a patient] on the Saturday morning because I was worried about her … and I was wearing a mask and whatever PPE gear I could, you know, use at the time, and doing things I wouldn't normally do, you know, … but, yeah, it was just exceptional times.

Rebecca:

> People really don't have something like Zoom. Most of the time it's just per phone call. [longer text passages removed in which she describes her service] There's a lot of emotion in my voice, and they can, and they seem to, uhm, be right on when I'm happy or I'm sad … you know, it's weird … I'm, uhm, there's fewer boundaries between me and patients.

These comments speak to a deeply rooted sense of responsibility for the well-being of patients, and a personal commitment to the concept of duty of care that exceeds the expectations set out in a social work job description. In this, these comments are representations of a bigger concept that was identified across several themes in this research: the concept of putting the needs of others at the centre of one's (vocational) attention and effort. This bigger concept was captured in the overarching theme *I Am There for Others*, which is one of the two main overarching themes identified in this research.

The personal identification with the social work discipline on the part of the participants also included the upholding of social work values. This upholding was expressed, for example, by Angelica: "As a social worker, my truth and integrity is far more important to me than [her personal advantage], yeah, I had to, uhm, make a stand". A similar upholding of social work values was expressed also by Camia, who had front-line management responsibilities during COVID-19:

Camia:

> I guess for me, uhm, welfare of people, particularly my team, welfare of staff, is a really high importance for me. I guess, that comes out of my value base. And so, I run my team based on my value base.
>
> Certainly, uhm, making sure that the social work voice is, sort of, really standing strong and proud. So, trying to make sure that we put our foot in the door jamb to make sure that social workers are very, you know, valued, and, I guess, honoured in a health space.

A specific area of traumatic tension arose for some participants from the social work commitment to the human right of autonomy. These participants reported traumatic experiences from their struggle with a perceived incompatibility between the right of autonomy over our bodies and the vaccination mandate for healthcare workers coming into force on 30 April 2021 in New Zealand (COVID-19 Public Health Response (Vaccinations) Order 2021):

Nadine:

> So now, you know, that's it, our bodies are no longer, we don't have that sovereignty over our bodies … we've essentially lost that human right, and that was the biggest thing I felt, and still do to a degree, grief over.

Angelica:

> The most difficult thing for me, over this two-year period, has basically been feeling silenced as a social worker. And being seriously concerned, uhm, about our … lack of choice for myself and for our patients. For me, as a social worker, my work is all around client-centred empowering work, for people to make their own decisions and choices around their lives.

The participants' identification with social work and the social work culture, in regard to its values and principles, seemed to encompass social work theoretical models, to inform thinking. The social work theoretical models included the knowledge and utilisation of psychological models of trauma. This aspect of social work expertise, like that of reflexive practice, might naturally lean toward an understanding that overcoming challenges and healing and growing from trauma was possible.

Several qualitative studies into PTG experiences for healthcare workers during COVID-19 identified PTG-fostering effects from psychosocial knowledge. There are several pertinent examples of these studies. A study by Moreno-Jiménez et al. (2021) investigated the PTG-fostering effect of psychoeducation, a study by Lyu et al. (2021) the PTG-fostering effect of learning about coping mechanisms and new perspectives on adversity, and a study by Feingold et al. (2022) the PTG-fostering effect of learning about models for meaning-making.

The proximity between participants' social work world of ideas and the conceptual world of PTG theory (Tedeschi et al., 2018) becomes visible in the comments made by many participants about their views on overcoming challenges and trauma:

Poppy:

> I guess, it's sort of the thing with social work, it's kind of like COVID, it's often unpredictable, it's often really hard work, and you can't see the light at the end of the tunnel, but you just keep going because you know at some point you'll see light at the end of the tunnel, or there'll be some change or shift or breakthrough … and with social work, you know, often there is.

Angelica:

> Just seeing a big picture of Carl Jung … and knowing that the work he did was so powerful … we all need to take personal responsibility for our own shadow-self and work on our own, you know, pain and trauma and so forth, yeah, and so I just knew that.

For many participants, who present with a previous trauma history, their personal life experience of surviving and working through trauma seemed to further complement their professional knowledge of the field of trauma:

Rebecca:

> I feel like, I've sort of worked through a lot of major traumas, and I've made decisions in my life as a person to, as much as I can, to surround myself by people that will only uplift me, you know, that will help me be happy in this world.

Nadine (reflects on whether there might be similarities between her traumatic experiences):

> I do remember thinking, you know: 'you can do this, you've been through worse' … You know, every time you go through something that's, you know, that has such an effect on you, you think: 'Oh my God, nothing like this has ever happened to me in my life', but actually, to some degree or other, different events of traumas … they may all present differently.

Participants' identification with social work and the social work culture, also seemed to encompass the concepts, self-care and resilience. From the perspective of PTG theory (Tedeschi et al., 2018), these concepts are relevant also in view of their relationship with PTG. The relationship between the concepts of self-care and resilience, and resilience and PTG, has been investigated by many COVID-19-related studies into healthcare workers' mental health outcomes. Findings from these studies indicate that the three concepts have dynamic and interdependent interactional effects. Close interactional effects between resilience and PTG were suggested by Lyu et al. (2021) who found that the relationship between resilience and PTG was dynamic and circular and that both concepts positively facilitated each other over time, while Bozdağ and Ergün (2021) found that the self-care factor of quality of sleep was a key determinant in the quality of life and life satisfaction, and in turn, resilience.

This interdependence between the concepts, self-care, resilience, and PTG, might mean that participants' knowledge and use of self-care strategies generally increased their chances of experiencing resilience and PTG (Tedeschi et al., 2018) during the pandemic. Many participants commented on their active use of self-care strategies:

Camia:

> It's funny, cause, I really hate the word resilience. I feel, like, it's kind of, like, if you don't have it, you're naughty, like, it's been talked about so much … but I had developed further, basically, a self-care training that we could do at team meetings, even on Zoom.
>
> I guess for me it's about being in tune. It's about being in tune for yourself, creating time to make sure that you're checking in with yourself, which means that you're able to keep your eyes open for people around you.

Rebecca (talks about her use of mindfulness as a self-care strategy):

> I think, I'm a pretty mindful person and, like, I really, I take the time to just think about the nice little details, like, uhm, when you wake up in the morning, what do you hear first? The birds, you know, the Tui.

Angelica:

> You know, like, if we're angry, it's not the other person or the government or any, you know, like, what's the point, I have to look after myself, I have to be as positive as I possibly can be to look after myself, it's part of my self-care.

Most of the participants in this study talked about using a combination of several different self-care strategies. This combination of strategies became particularly apparent in Rebecca's interview. She talked not only about her daily use of mindfulness techniques but also about her utilisation of her other proven self-care strategies: "I would turn off the news. I didn't need to know every single day how many COVID cases blah blah blah, you know, like, I just have a break from all of that", "I try to balance my life. I think that's been helpful" (talks about regularly engaging in special activities together with a group of like-minded friends), "I think, reading has been really lovely. It's a way to help me cope with these times and, actually, not think about COVID for a while" (talks about immersing herself in a novel), "I have a lot of people that are wonderful listeners in my life that listen when I have things that are bothering me, that I've been able to express", "I think, I'm able to find happiness, so I can just work through whatever" (talks about making a point of eating out in expensive restaurants with her husband), "I've got a very loving, caring partner. So, I'm quite blessed in my own environment", "I make eye contact with just about everybody that's around, and a smile and an eye contact brings you up. I guess, there's a myriad of ways that I find joy" (talks about walking through town), "I have to be kind of like a conduit to sort of let it go and find my own way to look after me" (talks about her exposure to a lot of trauma of others in her employment).

Many participants also reflected on their use of self-care strategies during COVID-19. Angelica, for example, talked about her personal healthcare: "For me, it's really important to stay calm and centered, and to look after my own health. So, you know, taking supplements like vitamin C regularly", and Camia talked about the benefits of being able to balance her role at work and her role at home as a mother:

Camia (talks about dropping off and picking up her son at a private in-home day-care placement):

> I could kind of put him in that space, know that he was okay, know that he was well taken care of. And I could take my mum-head off for the day. And I could turn up at work and do what needed to be done at work, which was vast and confusing and complicated and all kinds of things … He [her son] was a protective factor for me as well though because I could put it

> [her work-hat] down and come and pick up my mom-hat and be in mom-space. Uhm, and so, it was a weird time, but it was also, it was as bad as balanced as it was going to be.

The comments made by the participants in this study about their active use of self-care techniques during COVID-19 indicate how much of the participants' efforts to cope with their work were informed by social work theoretical knowledge, including the understanding of the concept of self-care.

In summary, the theme *I Am a Social Worker, It's Who I Am* is a construction that captures participants' identification with social work and positive appraisal of social work. It involves participants' identification with the social work culture, including its values, principles, and theoretical world of ideas, and also deeply caring for patients during the pandemic.

This positive identification with social work on the part of the participants might potentially possess favourable properties for the experience of PTG from working during the pandemic. That is, part of the participants' held expertise might have a fostering potency for the experience of PTG, specifically in the areas of reflexive thinking, psychosocial knowledge, and utilisation of strategies of self-care. The PTG-fostering potency of psychosocial knowledge and knowledge about the concepts of self-care and resilience was suggested by findings of the evolving research into the healthcare workforce during COVID-19 (Feingold et al., 2022; Lyu et al., 2021; Moreno-Jiménez et al., 2021). Further, having a professional self-identity itself was found to positively correlate with PTG (Mo et al., 2022).

The theme *I Am a Social Worker, It's Who I Am* contains the bigger concept of caring for others, which is present in several themes of this study and captured in the overarching theme *I Am There for Others.* The overarching theme *I Am There for Others* is one of the two main overarching themes identified in this study.

Positioning of the Researcher in the Research

For transparency, it has to be noted, that I, the researcher, similar to the study sample, identify with the social work profession and world of ideas. Working as a social worker in healthcare during COVID-19, I was exposed to personal trauma in the economic and family environment involving the loss of some of our family income, loss of the lease of our home, and loss of the health of a loved one. In the aftermath of my trauma, I experienced transformational growth in the PTG subdomains, *personal strength, appreciation of life, new relationships*, and *spiritual and existential change*. The latter is in the form of new qualities of prayer and prayers together with others.

Conducting this study about the PTG experiences of others, while simultaneously trying to make sense of my own personal trauma during the pandemic, became a deeply enriching and reflexive process for me. That was because the conceptual world of the study topic reflexively informed my

process of sense-making. Close academic supervision was performed at all phases of this study to ensure ongoing critical reflection about my positioning and influence on this research.

Theme: The Impending Doom

The theme *The Impending Doom* captures the construction of an intense sensation that something tragic and life-threatening was about to happen that was identified across the dataset of this study. Poppy expressed this sensation when she portrayed her experience travelling to work during a lockdown:

Poppy:

> We didn't know what COVID was, what the impact of COVID would be, uhm, and so it was just very airy, like an apocalyptic type feeling driving to work in the mists with no cars, just me and two or three police cars.
>
> I can slightly feel it in my body now. It's like an internal shaking feeling, it's like on the outside you seem fine, but the inside, your core is kind of, it feels very primal … like an internal shaking feeling, maybe that is fear. Uhm, yeah, just the unknown, going into the unknown when everybody else in society was not doing it.

Other participants described similar sensations. Camia talked about an unnerving wait for COVID-19: "Our biggest problem was the mental emotional impact and fatigue of the impending doom", and: " Sitting on the edge of our seats for two and a half years waiting for it to hit, that's been the hardest bit. And that bit has kind of been like a roller coaster", while Angelica vividly portrayed the moment, she and her team realised the gravity of the situation: "I can remember news of, you know, COVID and lockdown, and just one doctor and I looking at each other and thinking: 'what is this year going to look like? … What have we got ahead of us?'"

The described sensation, in these comments, that something threatening was about to occur seems to be partly linked also to a sense of fear of the unknown. This fear of the unknown was mentioned by Poppy, who at this point in her interview started to experience signs of re-traumatisation. She described these signs as a re-felt physical sensation of a primal internal shaking. Upon request, Poppy reassured the researcher that she, however, felt able to cope with her memories and that she wanted to continue the interview. Poppy was not the only participant in his study who talked about her fear of the unknown, it was also mentioned by Angelica: "That first lockdown, uhm, yeah, it was stressful, it was, you know, the unknown", and by Nadine: "The first lockdown was probably the worst experience, and probably because it was all so new, and we were all in the same boat".

The described sensation of impending doom in relation to the COVID-19 pandemic in New Zealand seems to resonate with the New Zealand-specific trajectory of the pandemic. In New Zealand, the

spread of COVID-19 was long controlled by successful pandemic management and the elimination strategy *Going Hard and Going Early* (Cumming, 2022; Jamieson, 2020; Ministry of Health, 2020, 2021). One measure of this strategy was entry controls at the border, gaining an advantage from the geographical location of the country as an island with limited access from the outside. However, the possible spread of this life-threatening disease in a remote country such as New Zealand with limited access to diversion hospitals and intensive care units remained a pervasive danger.

The intense sensation that something tragic was going to happen, identified by the sample in this study, manifested in different types of fear. These types of fear included, in addition to the fear of the unknown, also the fear of infection and transmission of the potentially deadly disease, and the fear of war-like frontline combat fighting the disease.

These types of fear resonate with the types of fear identified by studies on the negative mental health outcomes of front-line workers in healthcare during a pandemic. There are several pertinent examples of these studies. A qualitative study by Munawar and Choudhry (2021) identified overwhelming media-exacerbated fear as a cause for front-line workers' negative mental health outcomes; qualitative studies by Belfroid et al. (2018), Broom and Broom (2016), Fontanini et al. (2021), and Koontalay et al. (2021) identified existential fear for oneself and loved ones in the face of a novel threat as a cause for negative mental health outcomes; quantitative studies by Jang et al. (2021) and Vagni et al. (2020) identified fear of infection and of passing it on to others as a cause for negative mental health outcomes; and, qualitative studies by Broom and Broom (2016), Eftekhar Ardebili et al. (2021), Fontanini et al. (2021), and Liu et al. (2020) identified healthcare workers' morality of duty including self-sacrifice as a cause for negative mental health outcomes.

It is of note, that the language used by the participants in the latter studies showed analogies with the language of the military population and evoked a sense of uniting as a front-line defence to fight a common enemy. Similar analogies were present also in this research. One example is Camia's comment on her preference of not having to work from home: "I was also trying to figure out how do I make sure I can get to work and be present because me working from home … I'm not on the front line with them trying to figure this out". Camia's comment resonates with an experience identified by the qualitative research on healthcare workers during COVID-19: the warlike experience of being "sent to the frontline to fight an enemy that is stronger and more prepared than we are" (Fontanini et al., 2021, p. 243).

The intense sensation of impending doom and its related fears of infection and transmission and a war-like front-line healthcare environment was graphically described by several participants. Jenny described her fear of infection: "I think, as lockdowns, when things have happened … I think, initially, a lot of it was worry and: 'are we going to get infected?'", while Poppy described her fear of

passing the disease on to loved ones: “My worry was that I would go to work and bring home this supposedly deadly virus to my children and, therefore, that would be, you know, disastrous”.

In response to the fear of infection and transmission, participants also talked about their personal infection control practices. Camia, in this context, talked about a vast routine that she performed between leaving work and picking up her son from in-home day-care:

Camia:

> Part of that protocol for me, when he [her son] was in in-home care, was, I would go home and have a shower and put on clean clothes and then go and get him … and so, making sure that I had gone and done as much kind of decontamination as I could, so that when I got there, you know, we were doing temperature checks at the door before we can walk in the house.

The fear that the healthcare services could be facing war-like working conditions on the front-line fighting the disease, was graphically described by Poppy. She reflected on her imagination in light of her task to prepare her health service for what was about to come:

Poppy:

> And at that point, that was a real shock to me, that this could get so bad that we are just an absolute skeleton staff on, and people are having to do, you know, a role you were not trained to do. I guess, I’m thinking of, you know, like in war, you just do whatever you do, you know. I'm imagining in Ukraine that's happening now, where staff, frontline people, you're just doing whatever, it's a survival thing, you're just doing whatever you can to help as many people as you can to get through.

The intense sensation that something tragic was going to happen, for some participants in this study, also included the fear of elimination of healthcare workers’ rights concomitant to a possible healthcare emergency. This fear was described, for example, by Angelica: “There is [*sic*] times when I have felt calm and safe, and times when that's the last thing I felt, like not knowing whether my rights and freedom would be taken away”.

There is persistence identified on the part of the participants in this study, to continue their work in healthcare also in the face of their fear of a novel threat, and for many, a sensation of impending doom. This persistence speaks to a commitment to the principle of duty of care that goes beyond the responsibilities set out in a social work job description.

Specifically, the comparison made by Poppy to the duty of front-line health workers at war times, doing whatever it takes to help as many as possible to survive, illustrated this commitment. In this, Poppy’s comparison has to be seen as a representation of the bigger concept of putting the needs of

others at the centre of one's (vocational) attention and effort which is contained in three themes of this study. It is contained in the theme *I Am a Social Worker, It's Who I Am,* in the theme *The Impending Doom,* and in the theme *Extra Stress on Top of the Stress*. This bigger concept of putting the needs of others at the centre of one's attention was captured in the overarching theme *I Am There for Others* in this study. The theme *I Am There for Others* is one of two main overarching themes identified in this research.

The inner conflict and decision as a front-line worker to go to work when everybody else was safe at home, became visible in Poppy's and Camia's reflections. Poppy reflected on her experience: "Everything in, you know, my body's internal warning system was going: 'You shouldn't be going to work'", "They were at home where it was safe and yet as health staff … you know, you just, uhm, go to work despite how you're feeling", and "I felt a huge sense of responsibility to, uhm, be brave, I guess, and show up for work and help manage this situation". While Camia reflected: "I'm no one for, uhm, running away, so we just kind of cracked on. But, I guess, it made me feel like I was, I mean, everyone, it was a big melee".

In summary, the theme *The Impending Doom* is a construction that captures an intense sensation, felt by some of the participants in this study, that something life-threatening and tragic was about to happen. This sensation involved the fear of the unknown, the fear of infection and transmission of a potentially deadly disease, and the fear of war-like frontline combat fighting the disease. These fears on the part of the participants correspond with fears identified in the literature as contributing factors for the development of negative mental health outcomes for healthcare workers during COVID-19 (Eftekhar Ardebili et al., 2021; Fontanini et al., 2021; Jang et al., 2021; Liu et al., 2020; Munawar & Choudhry, 2021).

From the perspective of PTG theory (Tedeschi et al., 2018), the theme *The Impending Doom* captures the types of intense fears that have the potential to impact a person's assumptive world. However, this is only a general observation, and no participant in this study pinpointed the fear of impending doom as the key experience that had negatively impacted their core beliefs. Destruction or partial destruction of a person's core beliefs, as per PTG theory, is a prerequisite for transformational growth to occur, because, as per definition, transformational growth occurs when a person, from the ruins of destroyed core beliefs, constructs new and more advanced core beliefs. For one participant, Poppy, driving to work alone on the motorway in the mists of the early morning, when everybody else was safe at home during a lockdown, still constituted her most protruding experience during the pandemic.

The theme *The Impending Doom* contains the concept of being of service to others, including at a level of putting oneself at risk. The concept of being of service to others was captured in the overarching theme *I Am There for Others* which arches over three themes in this study: the theme *I*

Am a Social Worker, It's Who I Am, the theme *The Impending Doom*, and the theme *Extra Stress on Top of the Stress.*

Positioning of the Researcher in the Research

For transparency, it should be noted that I, the researcher, share the experiences described by the study sample both in relation to driving to work alone on an empty motorway wondering whether to accept the call of duty and in relation to performing far-reaching decontamination routines every day after work out of fear to bring the disease home. When at the early stages of the pandemic the supply of adequate personal protective equipment (PPE) proved defective, I made the personal experience of losing my, until then, existential trust in the governmental systems to keep me and my colleagues safe in our employment and out of harm's way. For me, this loss of trust constituted a partial destruction of my core beliefs about myself and the world we live in.

Theme: Extra Stress on Top of the Stress

The theme *Extra Stress on Top of the Stress* captures the construction of a perfect intersection of chronic vocational stress that exists in healthcare settings and acute stress related to the COVID-19 pandemic. The recognition of high and in part extremely high occupational stress during the pandemic was the most prominent patterned theme identified across the data set of this study and detectable in every data item. The intersection of chronic vocational stress and acute pandemic-related stress, and the consequences of this occurrence on participants' mental well-being, was portrayed in many of the participants' comments. Examples of these comments are two reflections by Poppy: "I just think that the roles are generally very busy anyway, so the extra layer of COVID just pushes people over to breaking point" and "You're just extra extra extra busy, which is obviously stressful because you're getting to the end of each day, never getting on top of your work", and a reflection by Camia: "I think, if I'm honest, it's a slightly impossible space. I think it is a role that was always going to be a little bit too much to fit in, and so I think, even without a pandemic, it was always going to be a role that was going to be very stretched".

Other participants also commented on their experience of increased vocational stress during the pandemic. Examples are two reflections by Rebecca: "Our services are full to the brim … we're always at the max. So, I kind of, live in an environment with lots of stress around me. So, I take on a lot of vicarious trauma and stress" and "I probably live in a state of, what is it …]it's actually also that underlying stress of the mountain of work that's this high", and a reflection by Nadine: "I had compassion fatigue, we all do, we're all just about burned out, we're all, you know, hanging on by our fingernails, it feels like most of the time".

A graphical depiction of what it was like to experience stress as a social worker working in healthcare during COVID-19 was made by Camia:

Camia:

> It was, like: ‘The whole place is on fire’. And every time I picked something up or turned a rock over, that caught on fire. And so, every time I did something, I was, like: ‘We're on fire’, like, ‘everything, everything is on fire, even the solutions are on fire’.

The theme, *Extra Stress on Top of the Stress*, and its concept of accumulating stresses at the point of intersection between chronic vocational stress and acute pandemic-related stress align with the findings of an umbrella review of reviews by Magnavita et al. (2021). Magnavita et al. identified in their review, that occupational stress, consisting of chronic stress and acute stress, was the overarching cause for most of the identified negative mental health outcomes for healthcare workers during COVID-19. This finding was graphically described as: “the COVID-19 pandemic presents a sort of perfect storm regarding the intersection of chronic workplace stress resulting in high rates of HCWs burnout and acute traumatic stress imposed by the pandemic” (Magnavita et al., 2021, p. 3).

The theme *Extra Stress on Top of the Stress* refers to a wide spectrum of occupational stresses identified by the participants in this study. These stresses include stress related to the workload, stress related to the double burden of stress at work and in one’s private life, stress related to the use of personal protective equipment (PPE), stress related to communication, stress related to the vaccination mandate, and stress related to the sense of having to be strong for others. These stresses resonate with many of the stresses identified in the literature on healthcare workers’ negative mental health outcomes during the pandemic (Magnavita et al., 2021). A comment by Camia illustrates the experience of occupational stress at an extreme and traumatic level:

Camia (who had front-line management responsibilities during COVID-19):

> The first one for me would be, they asked me to write a COVID plan for the social work team and to have it on the desk with no delay so, probably for me, in terms of traumatic events, the biggest one for me.

In this research, the participants frequently commented on their experiences with the double burden of COVID-19-related stresses at work and in their private lives. This double burden was identified also by many studies on the negative mental health outcomes for healthcare workers during COVID-19. Examples are studies by Heath et al. (2020) and Tam et al. (2020). Some of the participants in this study commented on this double burden directly:

Nadine:

> I had a lot of personal stuff going on at the same time. So, uhm, I don't know which was more traumatic … My sister had an anxiety episode right on the very first night of lockdown. So,

> uhm, that was all going on, all sort of simultaneously. So, it was pretty, uhm, messy. And I was messy".

Other participants commented on this double burden inadvertently by reflecting on their pandemic-related stresses outside work. For example, Camia commented (in relation to the first lockdown): "I was worried because it was me and my six-year-old, and now the whole world had shut down"; while Jenny commented (in relation to the border restrictions): "And it was the thought of, if I needed to be able to go to Canada [to help her much older siblings], I couldn't go, that really mentally, I struggled with that", and Rebecca commented (in relation to the vaccination mandate): "I've had lots of friends that have, uhm, chosen not to get vaccinated … that's been our big divide … I've sadly, I've lost a lot of those friendships because of that".

Other pandemic-related stresses in this study were identified in relation to the use of personal protective equipment (PPE). These stresses included stress related to regulations of when to use PPE and stress related to the discomfort of wearing PPE. However, interestingly, no participant in this study mentioned stress related to the availability of PPE as such, or lack thereof. The participants' identified stress in relation to the discomfort of using PPE, specifically with regard to heat stress and difficulty breathing, aligns with the findings of the research on healthcare workers' risk for negative mental health outcomes (Davey et al., 2020; Moreno-Jiménez et al., 2021; Parush et. al, 2020). However, the participants' identified stresses did not align with the consistent finding across the literature that the availability of adequate PPE was a significant stressor for the healthcare workforce during COVID-19 (Hoernke et al., 2021; Kisely et al., 2020; Moreno-Jiménez et al., 2021).

Jenny described the PPE that she had to wear at her social work interventions with patients on the front line: "I'm wearing the 95 mask, the goggles or the visor, the gloves, the full apron, the whole works, uhm, and it's so warm, especially on a hot sunny day. It's really warm". While Rebecca described her difficulty breathing: "It's quite uncomfortable wearing the 95 mask, because you really can't breathe very well." In a further comment, Jenny graphically illustrated the experience of heat stress:

Jenny:

> When I've been taking the big blue gowns, it's all long-sleeved arms with the bands on them, and I feel, when I peel it all off, because most of our visits take an hour and a half, two hours in length, uhm, I feel as I've been in the swimming pool when I take it all off because my arms and everything is just so wet. And even trying to write with a pen is very difficult wearing the gloves.

Another pandemic-related stress included in the theme *Extra Stress on Top of the Stress*, is stress related to communication within healthcare and from government agencies. This stress aligns with the findings of the research into healthcare workers' risk for negative mental health outcomes. An example is a study by Stuijfzand et al. (2020) who identified that a consistent flow of information and clear communication was one of the protective factors of front-line workers' mental health during COVID-19. Several participants in this study commented on their experience of stress from exposure to a high volume of communication:

Angelica:

> The other stress, I think, at the time was the huge communication all the time on a daily, almost hourly basis. Sometimes, it felt like you were getting new information from the Ministry of Health [in parallel to information from the healthcare provider], well, it was a lot to read and keep up with."

Camia:

> I saw that come up quite quickly, you know, people were like: 'Uh, we wear a mask, we not wear a mask, we're doing this, we're not doing this'. And, honestly, at the time it felt, like, four times a day we were getting different information from further up the chain because everyone was building their comms as they were thinking about them.

Part of the pandemic-related stresses captured by the theme *Extra Stress on Top of the Stress* is stress related also to the vaccination mandate for healthcare workers in New Zealand (COVID-19 Public Health Response (Vaccinations) Order 2021). The mandate came into force on 30 April 2021, almost one and a half years into the pandemic.

Several participants in this study identified being subjected to the vaccination mandate as the single most traumatic experience of their employment during COVID-19. Their traumatic experiences, thereby, seemed merely not to relate to the vaccination as such, but to the fact that it was mandatory, and that workers were facing unemployment if they did not bow to the mandate. A perceived incompatibility of the mandate with the human right of autonomy and the guaranteed respect for human dignity and integrity of the person seemed to result in a deeply traumatic experience for some of the participants in this study.

From the view of PTG theory (Tedeschi et al., 2018), there are several comments in this study to be interpreted as precluding the destruction of core beliefs. For example, a comment by Angelica: "You know, it changed my worldview, I don't trust the government, and I don't know what the future is going to look like", and a comment by Nadine: "It left me with little respect for the service, or for the

whole wider, for the government, for everything". The emotional experience related to the trauma of the vaccination mandate becomes visible in a reflection by Nadine:

Nadine:

> I felt so angry. I was so angry at the management, at the government. I was angry. I've never been so angry in my entire life. And at the same time, I felt completely unsupported by my service. And I was angry at them too.

Another area of stress captured by the theme *Extra Stress on Top of the Stress* is related to a felt obligation on the part of many participants to be strong for others. This obligation to be strong for others is an indication that the concept of putting the needs of others above one's own is contained within the theme *Extra Stress on Top of the Stress*. The concept of putting the needs of others above one's own in this study is captured in the overarching theme *I Am There for Others*, which is one of the two main overarching themes identified in this research.

There are several comments about the felt obligation to be strong for others, for example by Nadine: "The option of just curling up under a rock and having a complete mental breakdown myself, that luxury wasn't an option, not on the table, wasn't going to happen, couldn't happen", and by Poppy:

Poppy:

> Like a lot of people in history, in other times, you keep yourself together because you have to because other people are falling apart around you and so, yeah, that sense of needing to, yeah, not fall apart because you want to be there for other people.

In summary, the theme *Extra Stress on Top of the Stress* is a construction that captures a spectrum of, in part at an extreme level, pandemic-related vocational stresses. Participants identified these stresses as an occurrence at the intersection of chronic occupational stress and acute COVID-19-related stress. These stresses involve stress related to increased workloads and to the double burden of pandemic-related stress at work and in participants' private lives. They also involve stress related to the use of PPE, stress related to communication, stress related to the vaccination mandate, and stress related to the felt obligation of having to be strong for others. The stresses explored by the participants in this study correspond with stresses identified in the literature as contributing factors for the development of negative mental health outcomes for healthcare workers during COVID-19 (Magnavita et al., 2021).

The theme *Extra Stress on Top of the Stress* contains the concept of putting the needs of others above one's own which is captured in the overarching theme *I Am There for Others* in this study. The overarching theme *I Am There for Others* arches over the theme *Extra Stress on Top of the Stress* and the themes *I Am a Social Worker, It's Who I Am* and *The Impending Doom*.

From the perspective of PTG theory (Tedeschi et al., 2018), the theme *Extra Stress on Top of the Stress* is closely linked with the theme *The Impending Doom* in that both themes capture the types of stresses and fears that have the potential to impact a person's assumptive world. These stresses and fears have two-way interactional forces and are accumulative to each other. A few participants in this study identified the experience of occupational stresses at an extreme and traumatic level and the destructive impact of these stresses on their worldview. This destructive impact was reported specifically in the area of trust in the authorities including the healthcare system and relevant government ministries. As per Tedeschi et al., the destruction or partial destruction of a person's worldview might indicate the destruction or partial destruction of a person's assumptive world, which is, per definition, the prerequisite for PTG to occur.

Positioning of the Researcher in the Research

For transparency, it should be noted that I, the researcher, shared the experiences of increased stress with the study sample during COVID-19. I personally experienced pandemic-related stress at a traumatic level in relation to the double burden of stress in my employment and in my economic, educational, and family environment outside work. My increased stress presented over longer periods of time with physical symptoms that required medical investigation and treatment.

I also share the experience of chronic vocational stress with the sample that exists in my employment independently of the acute pandemic-related stress of COVID-19. This chronic stress became obvious to me at a time when my caseload temporarily decreased as the hospital, I work with, prepared for an anticipated first wave of patients with COVID-19. Many non-urgent treatments were cancelled in anticipation of this wave. These cancellations led, for a short period of time, to a caseload at a more manageable level than usual. This experience of a temporary 'downtime' made me aware of my otherwise chronic exposure to excessive workloads and, in relation to this, chronic occupational stress.

Subtheme: You Pay With Your Health

The theme *Extra Stress on Top of the Stress* has the subtheme *You Pay with your Health*. This subtheme is a construction that captures participants' views that their service in healthcare during the pandemic had come at a cost to them, a cost in form of negative health and mental health consequences. These negative consequences were identified as a result of high vocational stresses and fears, at times at extreme levels. The subtheme *You Pay With your Health* is vertically linked with the theme *Extra Stress on Top of the Stress*, and horizontally linked with the theme *The Impending Doom*. It is horizontally linked with the theme *The Impending Doom* as the sense that something terrifying was going to happen and the experience of pandemic-related vocational stress were identified as linked experiences in this study with an accumulating effect.

There are many comments in this study that refer to the experience of negative health and mental health consequences from working during Covid-19. Examples are comments by Poppy: “In my car on the way home, actually, I would’ve had a few tears, uhm, and probably more exhaustion than fear but, yeah, there were definitely a few” and “I could see COVID was continuing and, uhm, I guess, it was affecting my health, the level of stress, and I actually ended up, I ended up resigning”; comments by Nadine: “I drank more across that time, I, yeah, lots of tears, lots of meltdowns” and “I was so emotional by that stage, I did get stuff mixed up in my head. My, uhm, interpretation of what, some stuff that was being said, wasn’t correct”; a comment by Jenny: “I sort of got quite wrinkly skin at times and when you take the mask off, my nose just wants to run and run and run and run”; and a comment by Camia:

Camia:

> I think you’re in a lot of automatic pilot when you’re trying to get everything done. But I do think there was a high level of anxiety, like, you started to acclimatise to living at this moderate anxiety level all of the time. And so, then, being moderately anxious all of the time became normal.

The negative health consequences identified by the participants in this study align with the findings of the evolving research on healthcare workers’ risk for negative health and mental health outcomes during COVID-19 (Al Falasi et al., 2021; Magnavita et al., 2021; Sun et al., 2021). From the perspective of PTG theory (Tedeschi et al., 2018), the experience of negative mental health outcomes does not sit on the opposite end of a scale with the experience of PTG, but to the contrary, both experiences often coexist in a person.

Subtheme: We Are There for Each Other

The subtheme *We Are There for Each Other* is one of two subthemes of the theme *I Am a Social Worker, It’s Who I Am*. The subtheme *We Are There for Each Other* is a construction that captures the importance of collegial support identified by the participating social workers in this study. The importance of collegial support was a dominant feature across the dataset of this research and was present in every data item. It was identified at the horizontal level between peers, and at the vertical level between social workers and their front-line managers and vice versa.

There are many comments that refer to the importance of collegial support at the horizontal level:

Nadine:

> What’s probably keeping me working there, one of the major things is the fact, I mean, my team were super supportive on an emotional level for me. They couldn’t do anything, you

know, to change the situation, none of us could, but emotionally they were really [supportive], in the wider team also.

Camia:

One of the saving graces for me was that there was another front-line manager who started at the same time as I did, and she and I kind of banded together in the crucible of life, uhm, … and so we kind of had this gluing together.

Jenny:

I actually shared an office with four other ladies, and we also got, uhm, a support group sort of going between the five of us. That was most of the normal, yeah, and that side of things was good.

Poppy:

We had a lot of meetings and, I guess, support groups … We were all going through the same thing together, and in hindsight, a lot of our Zoom meetings about planning ended up actually being more a collegial support group … That actually was a huge support … and we were very regularly, if not daily, having catch-up meetings, so, I think that group, really, we helped, we all helped each other get through it.

While there are also comments that refer to the importance of collegial support at the vertical level. These comments include both comments from participants about the support they received from their managers and comments from participants with management responsibilities about the support they offered. Comments about the support that was received were made, for example, by Rebecca: “My boss, my manager is very nice … and she's understanding if I don't get work done”, and by Nadine: “I have to say, my manager stepped up to the plate, and they were very good because I needed quite a bit of time off”. A comment about the support that was offered, was made, for example, by Camia: “We as a health service are expected to look after our patients and their families. But actually, if we can't look after our own first then how are they going to look after others?”.

The identified importance of collegial support in this study aligns with the findings in the literature on healthcare workers’ coping and resilience during COVID-19. Examples of this literature are reviews by Finstad et al. (2021) and Heath et al. (2020). These reviews suggest the fostering of collegial support and managerial support as a measure to preserve healthcare workers’ mental health during the pandemic. Heath et al. (2020), as part of this, include a suggestion to facilitate professional networking and a ‘Battle Buddy’ system based on a model of that name used by the American military.

The research into PTG experiences for healthcare workers during COVID-19 identified social support as a correlate with PTG (Mo et al., 2022; Peng et al., 2021; Zhang et al., 2021), and subjective social support also as a correlate with PTG (Zhang et al., 2021). Correspondingly, it suggests measures to instigate and facilitate PTG processes for healthcare workers that include the consideration of good social support and a group atmosphere (Zhang et al., 2021), the promotion of social support systems (Mo et al., 2022), and the investment into peer support and buddy programmes (Feingold et al., 2022).

From the perspective of PTG theory (Tedeschi et al., 2018), the participants' utilisation and positive appraisal of collegial support identified in this study has to be seen as a factor that increases their overall chances of experiencing transformational growth from working in healthcare during the COVID-19 pandemic (Mo et al., 2022; Peng et al., 2021; Zhang et al., 2021).

Subtheme: Supervision Is Brilliant

The subtheme *Supervision Is Brilliant* is the other of the two subthemes of the theme *I Am a Social Worker, It's Who I Am*. The subtheme *Supervision Is Brilliant* is a construction that captures the positive appraisal of the social work characteristic practice of supervision that was expressed by the participants in this study. This positive appraisal is found across the dataset of this research and is present in every data item. There are many nuanced comments in relation to the positive appraisal of supervision. Examples are a comment by Jenny: "I did have supervision. I regularly had supervision, each month, and it was great. I found that, uhm, brilliant"; a comment by Angelica: "I had my clinical supervision with the social worker there, who was really lovely and supportive as well"; and comments by the other participants:

Nadine:

> I have a supervisor … yeah, she was great. She was so good, I can't say. I can't thank her enough for how supportive she was and how she did try to help spin things around, and to help me look at things from a different perspective and that sort of thing. She was fantastic.

Rebecca:

> My supervisor, … she's a good listener. She's got a really positive style. She hears me out with whatever I'm feeling. She helps me focus on what's important to me, you know, uhm, encouraging me, for me, to express my beliefs and my values … I think she's, it's been really valuable.

Camia:

> It wasn't so much a reflection space, so much, but it was more like a friendly face with a download option. Uhm, and so, probably, I didn't, yeah, I probably didn't reflect in the middle of the melee as much.

Poppy:

> Very empathetic, very empowering, just quality supervision, where it's productive, you're sort of, you getting to the core of what the issues are, you're not just talking for talking's sake, for an hour. Uhm, so, I think that, yeah, my supervisor, could really side and guide.

The identified positive appraisal of supervision on the part of the participants in this study aligns with findings from studies on healthcare workers' risk for negative mental health outcomes in that the facilitation of supervision and peer supervision was suggested as one of many preventative measures (Elbay et al., 2020). Studies on PTG experiences for healthcare workers during COVID-19 suggest supervision also as a PTG-fostering measure for healthcare workers during the pandemic (Veronese et al., 2022).

From the perspective of PTG theory (Tedeschi et al., 2018), the participants' utilisation and positive appraisal of supervision, like their utilisation and positive appraisal of collegial support, has to be seen as a factor that generally increases their chances of experiencing PTG from working in healthcare during COVID-19 (Veronese et al., 2022).

Theme: The Paradise of Lockdown

The theme *The Paradise of Lockdown* is a construction that captures the experience of a heightened state of being during the COVID-19 lockdowns. This heightened state of being was identified by many participants in this study and described as a positive experience and a different way of being.

The full lockdowns in New Zealand were characterised by an almost complete absence of road traffic, by closed retail shops, including the hospitality sector, and by families staying at home and working from home, while people still were permitted to go outside and exercise. Life during a lockdown, therefore, had a new quality. The experience of life during lockdown was positively perceived by many participants, and was commented on, for example, by Rebecca: "I actually think less travel during lockdown is okay, you know, there is [*sic*] more birds you can hear", by Nadine: "People were looking out for each other. Neighbours were actually communicating and talking. And, you know, that was cool", and by Jenny:

Jenny:

> One thing I did find that I did enjoy during lockdown was when we were doing our regular walks with the dog. We actually, it took me back to my childhood in lots of ways, we would actually take the backpack, and actually make a coffee or a cup of tea and take a flask with us to go for a walk.

Contained in the theme *The Paradise of Lockdown* is the bigger concept of existential human self-identity. This concept is captured in the overarching theme *I Am More Me* in this research. The

overarching theme *I Am More Me* is the second of two overarching themes identified in this study. It arches over the themes *The Paradise of Lockdown* and *The Positive That Has Come out of It* and sets a complementing counterpoint to the overarching theme *I Am There for Others*.

From the viewpoint of PTG theory (Tedeschi et al., 2018), the theme *The Paradise of Lockdown* seems to relate to the experience of PTG in that it resonates with core beliefs about the self and the world we live in. The sudden experience of a different way of being, in the midst of a landscape characterised by extreme COVID-19-related stresses, might have increased the participants' likelihood for an experience of PTG. That is, it may have provided a context for the deliberate rumination necessary for the creation of new beliefs.

Positioning of the Researcher in the Research

For transparency, it should be noted that I, the researcher, similar to the study sample, experienced life during lockdowns as positive. The peace and the clean air with the awareness of the smell of the ocean and the native plants created an experience for me that I perceived as magical. With surprise, I realised during the interviews that I was not the only one who experienced the lockdowns as positive and enriching.

Theme: The Positive That Has Come out of It

The theme *The Positive That Has Come out of It* is a construction that captures the experience of PTG (Tedeschi et al., 2018) for the participating social workers in this research. That is, it captures the positive transformational growth the participants identified as an outcome of their struggle with working in healthcare during the COVID-19 pandemic.

All six participants in this study identified the experience of personal transformational growth in at least one of the PTG subdomains, *personal strength, relating to others, new possibilities*, and *appreciation of life*. It was only the PTG subdomain, *spiritual and existential change*, for which there was no identified experience of transformational growth in this research. There were many comments about personal growth experiences on the part of the participants; for example, by Camia: "It's been hard, it's been hard the whole time, and it's been hard in lots of different ways for different reasons, but, uhm, I feel more myself now than I did two and a half years ago", and by Rebecca: "To be more of myself, to listen to me more, rather than always catering to other people's perspectives and points of views. Yeah, I think, COVID time has helped me to grow".

Contained in the theme *The Positive That Has Come out of It* is the bigger concept of an increased sense of identity and authenticity on the part of the participating social workers in this study. This bigger concept is captured by the overarching theme *I Am More M*e that arches over the themes *The Paradise of Lockdown* and *The Positive That Has Come out of It* in this study. The overarching theme

I Am More Me seems to represent the essence of the participants' identified growth experiences across the different PTG subdomains in this research.

The participants' reflections on their personal transformational growth provide powerful testimonies of what it means to experience PTG as a social worker in healthcare in New Zealand during COVID-19. The identified PTG experiences are reflected by the subthemes, *I Lean More Into My Relationships, I Am the Captain of My Life, I Have New Priorities,* and *I Embark Upon a New Journey* which are vertically linked to the theme *The Positive That Has Come out of It*. The subthemes, *I Lean More Into My Relationships, I Am the Captain of My Life, I Have New Priorities,* and *I Embark Upon a New Journey* align with the respective PTG subdomains, *relating to others, personal strength, appreciation of life,* and *new possibilities* (Tedeschi et al., 2018).

Subtheme: I Lean More Into My Relationships

The subtheme *I Lean More Into My Relationships* is a construction that captures the participants' identified transformational growth in relation to the quality of their relationships with others. The subtheme *I Lean More Into My Relationships* aligns with the PTG subdomain *relating to others* (Tedeschi et al., 2018). A few participants identified PTG experiences regarding relationships. For example, Angelica commented: "I found a new network of supportive people, I think, which was really, really helpful, yeah, so that was one of the positive things that came out of, you know, the trauma", and Jenny commented: "I'm conscious of connecting more with, in particular, my siblings, yeah, very much so", and: "It's made us more apparent that relationship is needed, yeah".

Jenny's reflections on how the relationship between her and her family members was transformed illustrate her experience of PTG in the PTG subdomain, *relating to others*:

Jenny (talks about the relationship with her siblings in Canada):

> We probably actually increased the contact, uhm, more than what we probably would normally have. I mean … we would even do things, like, just sending texts, daily texts to each other, yeah … and we also actually set up a family chat group as well. And … we'd say a certain time on a day, we would all be available together, and we'd all join each other online, and … I'd have a glass of wine, they'd have a coffee, or vice versa, depending on the time of day.

(talks about her relationship with her son):

> Doing things as a family. Like, for instance, I texted my son a couple of nights ago, and we're both on about going to a movie together. And booking time in to do that type of thing, yeah, rather than just, maybe in the past, it may have been a case of, uhm, talking about doing it, but you sort of never get around to actually arranging to do it, yeah.

Jenny identifies PTG in the form of a vitalisation of her connections with loved ones. This vitalisation seems to go hand in hand with a conscious realisation of this positive change and a commitment to a new way of engaging. As PTG is a result of conscious rumination in the aftermath of a highly challenging life event (Tedeschi et al., 2018), Jenny's awareness of the coming-to-life of her relationships forms part of her PTG. Her phrase "relationship is needed" seems to express a new view.

Subtheme: I Am the Captain of My Life

The subtheme *I Am the Captain of My Life* is a construction that captures the participants' identified transformational growth in relation to their personal strength and agency. The subtheme *I Am the Captain of My Life* aligns with the PTG subdomain, *personal strength* (Tedeschi et al., 2018). Many participants in this study identified PTG experiences in the form of a realisation of how strong they were, and how much they could effectuate. One example was Angelica, who commented: "For me, I guess, one of the positives is, it has actually shown me how strong I actually am, yeah"; while Camia commented: "I do very much feel, like, I am now captain of my own ship, both personally and also professionally"; and Nadine commented: "What I have learned from COVID … is that, uhm, we are a lot more self-sufficient than what we think we are, individually, I mean for myself ".

Camia's realisation of her abilities and natural leadership illustrates her experience of PTG in the PTG subdomain, *personal strength*:

Camia:

> I don't need another pandemic anytime soon, but what it has made me realise is, uhm, there will always be bumps and twists and turns and there will always be times when you're thrown into the deep end. It reminds me that I can swim, it reminds me that I have skills, and I have underpinning values that carry me through while I'm doing the swimming.
>
> I think I came out the end understanding more of who I am as a person, who I am as a leader, and the value that I can bring to a space, uhm, if I'm confident enough to believe in myself to be able to do that.

Camia identifies PTG in the form of a realisation that she, indeed, was the leader she must have sensed that she was or could become. She seemed to have found positive reassurance that she had what it takes and that she had it in her all along. Her phrase, "the value that I can bring to a space", seemed to express a new view.

Similarly, Nadine's realisation of her self-sufficiency and agency illustrates the experience of PTG in the PTG subdomain, *personal strength*:

Nadine:

> I'm probably more connected to my functional home environment. When I say functional, I mean in the practical sense, making things work easier, better, cheaper at home now than I was. And actually, I can survive on very little, much less than what I thought I could.
>
> (talks about getting significant help for her sister)
> I was open in that, well, sometimes you've just got to be if you want to get the help that you need … I had to say: 'Okay … I'll do whatever it takes', and I never thought that I would actually do something like that [bending the rules], but that's been part of the growth in this too.

Nadine identifies PTG in the shape of a realisation of her abilities: the ability to lead a more functional and self-sufficient lifestyle than she thought she could, and the ability to step out of her comfort zone and do whatever it takes to get the help needed. Her phrases, "I am more connected to my functional environment" and "I'll do whatever it takes", seem to express new insights.

Subtheme: I Have New Priorities

The subtheme *I Have New Priorities* is a construction that captures the participants' identified transformational growth in relation to their priorities and appreciation of life. The subtheme *I Have New Priorities* aligns with the PTG subdomain, *appreciation of life* (Tedeschi et al., 2018). Many participants in this study identified PTG experiences in relation to how much attention they were paying to their personal needs, and the priority they were attaching to them. They identified a transformational shift away from previously de-emphasising their needs toward now paying attention to their needs and taking action to meet them.

This specific experience of PTG on the part of the participants, the shift from previously de-emphasising to now emphasising one's personal needs, seems to be an essential finding of this research. It is a specific PTG experience shared by many of the participating social workers and a representation of the overarching theme *I Am More Me*.

There are many comments about PTG experiences that involve a shift toward paying more attention to one's own needs. For example, by Jenny: "It's made me more conscious that I definitely do need to look after me as a person, yeah", and by Rebecca: "I think COVID, and maybe the extra stresses and the extra things we've had to do under COVID, made me realise, well actually, my wellbeing is quite important, I need to focus on my own time, for me".

Poppy's reflection on a change of her priorities indicates the experience of PTG in the PTG subdomain, *appreciation of life*:

Poppy:

> I think that experience made me reassess my priorities, and I think, actually, you know, work is important, and I love my job, but actually, my own health and my family's wellbeing, at that point in time, I wanted to put them first … The ongoing taxing nature that is COVID, I think, made me reassess, you know, my career and my role and my family.

Poppy identifies PTG in the form of a reassessment of her priorities and a shift toward putting her own health needs and the needs of her family first, and above her career. Her phrase, "I wanted to put them first" seems to express a new primacy.

Similarly, Rebecca's reflection on a shift in her focus indicates the experience of PTG in the PTG subdomain, *appreciation of life*:

Rebecca:

> Rather than going all week looking after other people to then looking after my partner at night … to also carry on that same 'looking after somebody else all the time' …, I'm honouring a bit more that part of me that needs to do my own things or to spend time with my friends. I think that's been a positive thing related to the COVID stress.
>
> For instance, my supervisor is saying 'Oh, you need to work on getting a raise'. I've been 'Why do I need a raise, they pay me enough', but, 'No, actually, Rebecca.' I'm realizing, trying to be more, just a bit more self-focused.

Rebecca identifies PTG in the form of a new tendency of paying attention to herself rather than merely to others. This appears to include paying attention to her needs as well as her wants, such as an increase in pay. Her phrase, "be a bit more self-focused" seems to express a new perspective.

While Jenny's reflection on an increase in her work-life balance also indicates the experience of PTG in the PTG subdomain, *appreciation of life*:

Jenny:

> I'm probably more aware of the balance in life, a little bit more, in the sense of needing to put conscious effort into certain areas of my life if that makes sense. And so, for instance, I joined some dancing classes online … In the past, if, say, I was running late home from work … I would have probably said: 'Oh, I won't go tonight' … Whereas now, it's probably made me more aware of: 'No, I actually need to go, it's good for me to go, and I get a lot out of going', yeah. So, I'll make more of a conscious effort of trying to plan my days accordingly.

Jenny identifies PTG in the form of a conscious accession in energy to make room for activities she enjoys and benefits from. This conscious accession appears to include leaving work on time. Her phrase: "I am aware of the balance in life" seems to express a shift in her thinking.

Subtheme: I Embark Upon a New Journey

The subtheme *I Embark Upon a New Journey* is a construction that captures the participants' identified transformational growth in relation to their self-actualisation and future life trajectory. The subtheme *I Embark Upon a New Journey* aligns with the PTG subdomain, *new possibilities* (Tedeschi et al., 2018). A few participants in this study identified PTG experiences in relation to pursuing new career opportunities.

Angelica's reflection on the opening of a new career pathway indicates the experience of PTG in the PTG subdomain, *new opportunities*:

Angelica:

> I've worked in the system for a long time, and I have felt constrained within it. So, the silver lining might be that I might finally go out into private practice. And I'm not sure whether that will be as a registered social worker, or whether it will be a more alternative health kind of work, or some kind of counselling, healing, yeah.

Angelica identifies PTG in the form of new motivation to realise a seemingly long-held desire to go into private practice and, maybe, explore health services outside the scope of social work.

Summary of Findings

In response to the study's objective to explore the experience of posttraumatic growth (PTG) for social workers working in healthcare settings during the COVID-19 pandemic in New Zealand, this study identified PTG experiences for all six participants of the study sample and associated with the PTG subdomains, *relating to others, personal strength, appreciation of life*, and *new possibilities* (Tedeschi et al., 2018).

The participating social workers in this study described a journey from their normal vocational environment in healthcare into the special environment of COVID-19 and back to their normal environment as the pandemic ceases. They identified the departure from their normal environment around the time when the first COVID-19 cases were identified in New Zealand and the first lockdowns took effect. It was the time that COVID-19, after its breakout in Wuhan, China, in December 2019, started to spread and change the circumstances in healthcare globally.

The participants described their normal vocational environment, outside the pandemic, as characterised by stretched roles and chronic occupational stresses, and the special environment of

COVID-19 as characterised by high and acute stresses and a sense of impending doom. The pandemic-related stresses identified by the participants in this study align with the pandemic-related stresses identified in the literature on negative mental health outcomes for healthcare workers during COVID-19 (Magnavita et al., 2021).

The participants provided accounts of identification with their social work profession and its culture, values, and theoretical concepts including those of trauma, self-care, resilience, and critical reflection. This identification with social work might have increased the likelihood for the sample to experience PTG through working in healthcare during COVID-19. The increase in likelihood aligns with the findings of Mo et al. (2022) who found that a higher occupational self-identification increases the likelihood to experience PTG; of Feingold et al. (2022), Lyu et al. (2021), and Moreno-Jiménez et al. (2021) who found that psychoeducation and the understanding of the concepts of self-care and resilience increase the likelihood to experience PTG; and of Veronese et al. (2022) who found that the practice of critical reflection increases the likelihood to experience PTG.

A key feature identified across the dataset of this study is deep caring for others and commitment to the duty of care for patients also at pandemic times. All six participating social workers provided accounts that they accepted the call for duty when the pandemic started and continued their employment in healthcare. A few participants recognised a moment of hesitation at the point of entry into the special healthcare environment of COVID-19. This hesitation is illustrated in a comment by Poppy, who described her travel to work on the first day of lockdown: “I go through quite a few roundabouts, and it was very tempting to just go right around the roundabout and hit back home”.

The participants in this study identified that, once they found themselves in the special environment of COVID-19, they benefitted from bonding with their colleagues and attending supervision, while they adapted to the confusing rules of the pandemic, including those of how and when to use PPE. The participants’ ability to engage in collegial support might have further increased the likelihood of them experiencing PTG (Finstad et al., 2021; Heath et al., 2020; Mo et al., 2022; Peng et al., 2021; Zhang et al., 2021); as might have their ability to engage in critical reflection during supervision (Veronese et al., 2022).

The participating social workers commented that, as their journey continued in the special environment of COVID-19, they encountered pandemic-related challenges in the form of extreme pandemic-related stresses, deep and novice fears, a sense of impending doom, and trauma. Their identified stresses align with stresses identified in the literature (Heath et al., 2020; Magnavita et al., 2021; Tam et al., 2020), as do their fears (Eftekhar Ardebili et al., 2021; Fontanini et al., 2021; Jang et al., 2021; Munawar & Choudhry, 2021). They identified negative health and mental health consequences from their work including heat stress, exhaustion and anxiety, which align with the

negative mental health consequences identified in the literature (Al Falasi et al., 2021; Magnavita et al., 2021; Sun et al., 2021), and identified their resistance using the coping strategies they knew including self-care. Commitment to working in healthcare during COVID-19 is vividly portrayed in a comment by Nadine: “Basically, I just told myself, ‘you've got to get through this, you've got no choice, you just put one step in front of the other, go to work, deal with work’”.

The participating social workers returned to their normal vocational environment when the pandemic began to cease. The experience of returning is captured in a comment by Camia: “It's been a crazy couple of years, it's been a crazy couple of years, yeah, we survived”.

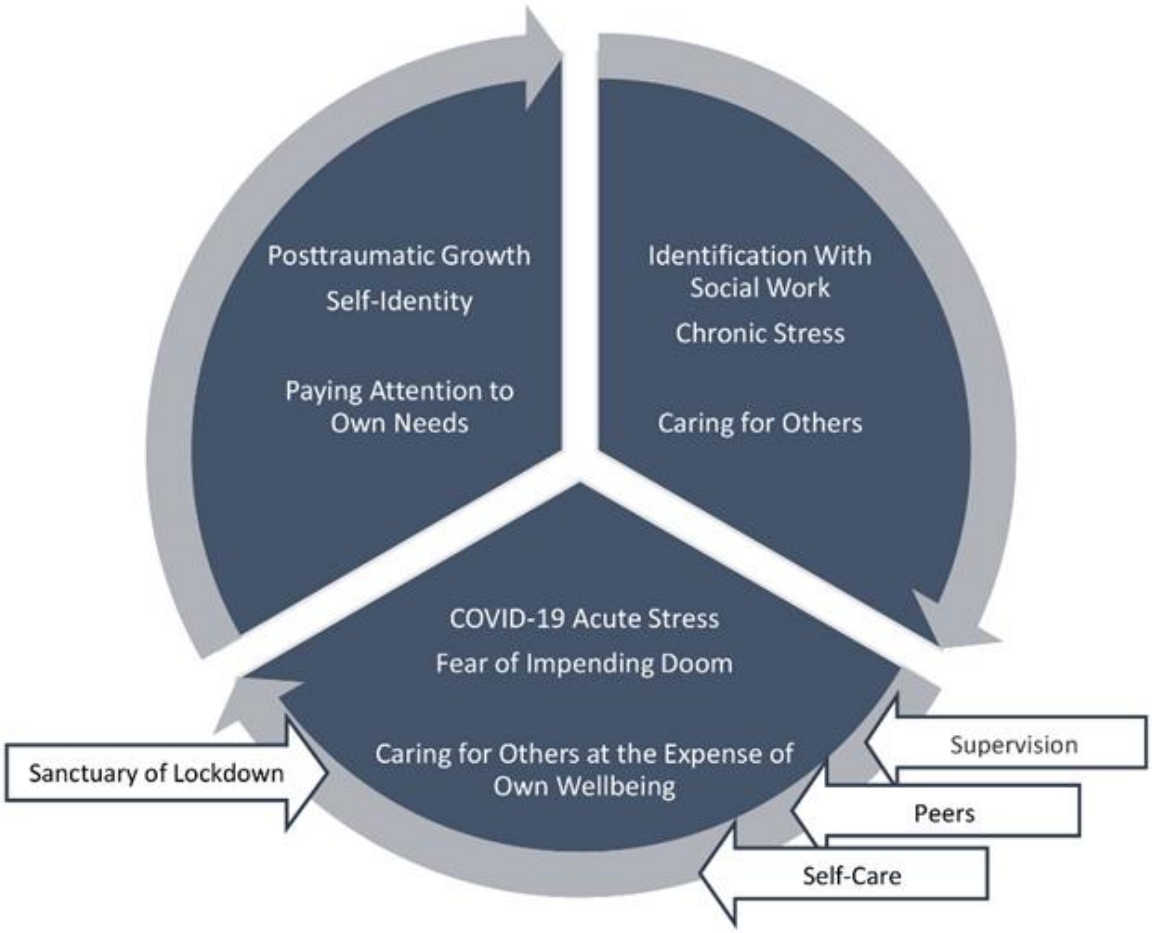
On reflection, all six participants identified personal transformational growth experiences as a result of their struggle with working in healthcare during the pandemic. They identified PTG experiences in the PTG subdomains *relating to others, personal strength, appreciation of life*, and *new possibilities* (Tedeschi et al., 2018); and realised, to say it in Camia’s words: “It's been hard, but it has been eye-opening”.

Many of the participants identified PTG in the form of an enhanced sense of self and enhanced self-identity. This included PTG experiences in the form of a realisation of how strong they were, how much agency they had, and what they could achieve; in the form of a new quality of how they related to loved ones; and, in the form of seizing new and long-desired career opportunities. For some, their experience of PTG also included a realisation that they must have had these potentials in them all along. Many participants also identified PTG experiences in the form of a shift in their priorities in life.

A key finding of this study seems to be the PTG experience of a shift in focus toward being able to pay more attention to one’s own needs versus the needs of others. This specific PTG experience was identified by many of the participating social workers and warrants further study to explore this shift in attention more deeply, for example by conducting a case study with a narrative approach. Similarly, it will also be recommendable to further investigate the prevalence of this specific PTG experience for social workers in healthcare by using a quantitative study design. The summary of findings in this study is depicted in Figure 2.

Figure 2

Summary of Findings



A surprise finding of this study was the positive comments participants made about the special quality of life they experienced outside work in the afternoons and on the weekends during a lockdown. Their comments portrayed life during the lockdown as a sanctuary almost in the midst of the COVID-19 stresses, with references to a peaceful environment with birdsong and fresh air and a sense of togetherness.

Conclusion

Meeting the Research Objective

By analysing the accounts of six social workers who worked in health settings in New Zealand during the COVID-19 crisis, this study identified six strands of stories about personal transformational growths woven into a powerful narrative; a narrative that was told about the experience of posttraumatic growth (PTG) (Tedeschi et al., 2018) at pandemic times.

This narrative can be divided into three acts. The first act is set in the participants' normal healthcare occupational environment, which many described as thinly stretched, even at the best of times. The participants strongly identified with their social work profession and described a deep caring for their patients. The second act is set in the special world of the virus. It starts when the COVID-19 pandemic reaches the shores of New Zealand and the country goes into lockdown. Many participants reflected on encountering major challenges, stresses, and fears in the special world of the virus and suffering from negative health and mental health outcomes. They also reflected on the support they were receiving from their peers and managers, and at supervision, and the critical importance of this support for overcoming the challenges of the world of the virus. Challenging situations at which this support was absent were identified as the most traumatic experiences. The third act is, again, set in the participants' normal occupational environment. It starts as the pandemic begins to cease. The participants commented on their return as being alive, however, positively transformed.

While the participating social workers identified different PTG experiences, the most significant finding of this study was, that most participants experienced PTG in the form of an increased sense of self and self-identity and in the form of a shift toward being able to pay attention to their own needs versus the needs of others. This finding warrants further investigation, particularly with regard to further theoretical analysis.

The results of this study indicate, that, in parallel to the well-established adverse mental health outcomes for healthcare workers from working during COVID-19, a dimension of positive transformational growth might covertly exist and warrant further attention and exploration.

The methodological design of a thematic analysis based on Braun and Clarke (2013) with individual interviews and a semi-structured interview guide was of high effectiveness in generating the data that was needed to meet the study's objective. The interviews were held in a participant-centered style and via a free flow of exploration led by the participant. This style proved effective in producing data of high spontaneity sought to authentically explore social workers' PTG during COVID-19.

Recommendations for Further Research

Based on the findings of this study, two areas appear to specifically invite further investigation, that is outside the scope of this project. They are, on the one hand, the depth at which the process of individual transformation and growth can be explored; and, on the other hand, the prevalence at which the phenomenon of transformational growth can be observed for social workers in health settings. Future studies could address these areas by qualitatively investigating individual cases to greater depth using a case study approach, and by quantitatively investigating the prevalence of PTG amongst the social work population in healthcare settings using a survey.

However, to better understand the implications of the results of this study, future studies could address the tension that was identified in this study between the commitment to being of service to others also at pandemic times and at the expense of one's own health and well-being, and the consistently identified transformational growth experiences in the form of a shift toward being able to pay attention to one's own needs.

Limitations

A specific limitation of this study has to be seen in the relative homogeneity of the study sample. The recruitment process via self-identification was prolonged due to slow responses to the research invitation, and the final composition of the sample did, with the exception of one participant who identified as part Māori, not include social workers from other ethnicities than the Caucasian ethnicity and the ethnicity of Pakeha (New Zealand European), or include social workers of a younger age, or a gender identification other than female. Because of this significant limitation, any claim about the representativeness of the study findings is highly limited (Braun & Clarke, 2013; O'Leary, 2017).

The study, however, still aims for a potential transferability of findings to similar populations of social workers in similar environments (Braun & Clarke, 2013; O'Leary, 2017). To achieve this, the study provides contextual demographic information about the study sample and some circumstantial information about the COVID-19 trajectory in the unique geographical site of New Zealand.

Contribution to Future Pandemic Response Strategies

This study identified deeply personal and individually meaningful transformational growth experiences for all six participating social workers in this study from their work in healthcare during the COVID-19 pandemic in New Zealand. This finding holds merit in relation to the development of future pandemic response strategies that go beyond the preservation of healthcare workers' functioning and coping at adverse times, toward new occupational health approaches with an emphasis on transformation and growth. As part of this, unlimited access to external supervision and counselling services via an employment assistance programme might form a key element toward facilitating posttraumatic growth.

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Appendices

Appendix A: Approval Letter Human Ethics Northern Committee - NOR 21/70

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

6/12/2021

Dear: Christine Becker

Re: Ethics Application - NOR 21/70 - The Experience of Post-Traumatic Growth (PTG) for Social Workers working in Health Settings during the COVID-19 Pandemic in Aotearoa, New Zealand: A Qualitative Exploration

Thank you for the above application that was considered by the Massey University Human Ethics Committee:

Human Ethics Northern Committee at their meeting held on **Thursday, 21 October 2021**

On behalf of the Committee I am pleased to advise you that the ethics of your application are approved.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 951 6841; 06 95106840
E humanethics@massey.ac.nz; animalethics@massey.ac.nz; gtc@massey.ac.nz

Appendix B: Participant Information Sheet

MASSEY UNIVERSITY
COLLEGE OF HEALTH
TE KURA HAUORA TANGATA

The Experience of Posttraumatic Growth (PTG) for Social Workers Working in Healthcare Settings During the COVID-19 Pandemic in Aotearoa, New Zealand: A Qualitative Exploration

INFORMATION SHEET

My name is Christine Becker, and I am a student at Massey University, School of Social Work. As part of my Masters of Social Work, I am conducting a research project looking at posttraumatic growth outcomes for social workers who have worked in health care during the COVID-19 pandemic.

I would like to invite you to participate in this study to share your experiences and views of what it is like to work during a traumatic pandemic, how it has impacted your beliefs about the world, and what helped you cope or even grow in the aftermath of this experience.

The aim of the study is to better prepare social workers to cope with COVID-19 and future pandemic outbreaks.

Participant Identification and Recruitment
I am looking for six to eight social workers to participate. If you meet the following criteria please contact me:

1. Minimum of three years of experience working in a physical health setting.
2. Worked in a physical health setting during COVID-19 and its related lockdowns in Aotearoa, New Zealand or overseas.
3. Not currently receiving psychiatric treatment for an acute mental health issue.

Project Procedures
If you agree to participate, you will take part in an interview via Zoom. This should take no longer than one and a half hours.

I will provide you with a $20 New World voucher in recognition of the time you have spent with me.

Talking about traumatic incidents may trigger unpleasant responses. In the unlikely event that the interview makes you feel unsettled or distressed, support will be available. These options will be discussed with you when you have accepted this invitation.

Data Management

The interview will be video and audio recorded with your consent. I will transcribe your interview. The transcript will be available to you to make changes if you wish. Your information will be kept confidential, and the interview transcript will be anonymized. All data will be stored on a password-protected computer and only I and my two academic supervisors will have access to the data. All data will be deleted five years after the examination process was completed.

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study up until one week after the interview;
- ask any questions about the study at any time before and during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded;
- ask for the recording to be turned off at any time during the interview.

If you are interested and would like to be interviewed or have any questions about this project, please let me know by email below or by phoning me. Thank you very much for taking the time to read this. Please consider participating in this study.

Project Contacts

Researcher: Christine Becker
Email: christine.becker.2@uni.massey.ac.nz
Mobile: [redacted]

Student Supervisor: Associate Professor Dr Ksenija Napan
Email: K.Napan@massey.ac.nz
Phone: DDI (09) 213 6363
Mobile: [redacted]

Student Supervisor: Associate Professor Dr Shirley Jülich
Email: S.J.Julich@massey.ac.nz
Phone: +64 9 4140800 extn 43359

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR 21/70. If you have any concerns about the conduct of this research, please contact A/Prof Fiona Te Momo, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800, x 43347, email humanethicsnorth@massey.ac.nz

Appendix C: Consent Form

MASSEY UNIVERSITY
COLLEGE OF HEALTH
TE KURA HAUORA TANGATA

The Experience of Posttraumatic Growth (PTG) for Social Workers Working in Healthcare Settings During the COVID-19 Pandemic in Aotearoa, New Zealand: A Qualitative Exploration

PARTICIPANT CONSENT FORM

I have read, or have had read to me in my first language, and I understand the Information Sheet attached as Appendix I. I have had the details of the study explained to me, any questions I had have been answered to my satisfaction, and I understand that I may ask further questions at any time. I have been given sufficient time to consider whether to participate in this study and I understand participation is voluntary and that I may withdraw from the study until one week after the interview.

1. I agree/do not agree to the interview being sound recorded.
2. I agree/do not agree to the interview being image recorded.
3. I wish/do not wish to have my recordings returned to me.
4. I wish/do not wish to have data placed in an official archive.
5. I agree to participate in this study under the conditions set out in the Information Sheet.

Declaration by Participant:

I _____ [print full name]_____ hereby consent to take part in this study.

Signature: _____ Date: _____

Te Kunenga ki Pūrehuroa

School of Social Work
Private Bag 102904 North Shore, Auckland 0745 New Zealand **T** +64 9 414 0800 **www.massey.ac.nz**

Appendix D: Demographic Form

Posttraumatic Growth during COVID-19: Individual Interviewing Study

Some demographic questions

To help me learn about the range of social workers taking part in this study, it would be kind if you could answer the demographic questions listed below. The information will be kept confidential.

Please tick the answers in the boxes that best apply to you.

1	What is your age group?	21-30	31-40	41-50	51-60	61-70	>70
2	What is your gender?	Female		Male		Other	
3	Employment	Full-time			Part-time		
4	For how long have you been a social worker?	3-6 years	7-20 years	21-30 years	31-40 years	> 40 years	
4	Where have you worked during COVID-19? *(Please tick as many roles as you had during this time)*	Hospital					
		Primary Health Care					
		Mental Health Unit					
		Community Mental Health Centre					
		Residential AOD Rehabilitation					
		Community AOD Service					
		Hospice					
5	What is your ethnicity?	Pakeha	Māori	Pacific Peoples	Asian	Middle Eastern/ Latin American/ African	Other European	Other ethnicity
6	How would you describe your sexual orientation?	Heterosexual					
		Bisexual					
		Lesbian/Gay					
		Other					

7	What is your relationship status?	Single	Partnered	Married/Civil Partnership	Separated	Divorced/ Civil Partnership Dissolved	Other
8	Do you have children?	Yes					
		No					
9	Have you had earlier traumatic experiences in your life?	Yes					
		No					
		Maybe/ not sure					

Please save this demographic form to your computer and complete it online. Please return it to the principal researcher Christine Becker per e-mail to: christine.becker.2@uni.massey.ac.nz

Thank you very much!

Appendix E: List of Sources of Support

MASSEY UNIVERSITY
COLLEGE OF HEALTH
TE KURA HAUORA TANGATA

The Experience of Posttraumatic Growth (PTG) for Social Workers Working in Healthcare Settings During the COVID-19 Pandemic in Aotearoa, New Zealand: A Qualitative Exploration

LIST OF SOURCES OF SUPPORT

Thank you for participating in my student research project about the experience of posttraumatic growth for social workers working during COVID-19. Participating in an interview and a discussion about any form of traumatic experience always comes with a slight chance that you might experience discomfort or might get upset. These are normal reactions that can happen during the interview, or later in the day or during the night, and they usually pass soon.

If you should however feel that it would be good to have support with what is happening, please find below a list of helpful supports that are available to you:

1) Professional supervision with your social work supervisor

2) Counselling sessions via the Employee Assistance Program (EAP) Services of your workplace. EAP Services are free and confidential and will be offered online during COVID-19. Call and book an appointment any time.

3) Counselling via free 24/7 Helplines Nationwide. This is a list provided by the Mental Health Foundation of New Zealand:

   - Need to talk? Free call or text 1737 any time for support from a trained counsellor.

- Lifeline – 0800 543 354 (0800 LIFELINE) for counselling and support.

- Depression Helpline – 0800 111 757 to talk to a trained counsellor about how you are feeling or to ask any questions.

- Suicide Crisis Helpline – 0508 828 865 (0508 TAUTOKO) For people in distress, and people who are worried about someone else.

- Healthline – 0800 611 116 for advice from trained registered nurses.

- Samaritans – 0800 726 666

4) Contact your GP. Many medical centers have a scheme for a number of counselling sessions

5) If you are concerned about your safety call the Mental Health Crisis Line of your local DHB. You will find the number on the Ministry of Health webpage.

6) If it is an emergency Call 111

Appendix F: Semi-Structured Interview Guide

Social Workers' Experience of PTG During COVID-19 Interview Guide

Christine Becker

Information about healthcare setting

- Can you tell me a bit about the health service you worked for during COVID-19?
    - What does your team look like?
    - How would you describe your role?
    - How would you describe your typical patient/client case profile?

Exploration of traumatic experiences working during COVID-19

- What was it like working during COVID-19?
- Did you have any particularly distressing or traumatic experiences during this time?
    - Can you tell me a bit more about those experiences?
    - Could you explain how you felt at the time?
    - Do you remember what you did in response to those experiences?
- What would you say changed in you as a result of your experiences?

Reflection about what 'good' came out of it

- Having gone through all of this, and having tried to make sense of this traumatic experience, would you say that anything 'good' has come out of it for you?
    - What might have changed in how you perceive yourself?
    - What might have changed in how you relate to others?
    - What might have changed in what you expect for your future?
    - What might have changed in how you feel about life in general?
    - In your view, have your spiritual beliefs changed in any way? Did you notice any changes in what has meaning to you?

Reflection on what facilitated PTG

- What do you think has helped you grow from your experience (in the area identified)?
    - Do you know what instigated your growth?
- What do you think about the role that earlier traumatic experiences in your life, if you had any, might have played in this?
    - How do you relate your previous experience of trauma to your experience of working during COVID-19?
- Might there be another person who helped you get through this (COVID-19) and experience positive change?
    - If so, what did they do that was helpful to you?
- What was the importance of your professional supervision in facilitating your growth?

- Is there anything else you'd like to comment on or add?

Appendix G: ANZASW Website: Research Summary

RESEARCH SUMMARY (ANZASW)

THE STUDY AIMS TO EXPLORE THE POSTTRAUMATIC GROWTH EXPERIENCES OF SOCIAL WORKERS WHO HAVE WORKED IN HEALTHCARE DURING THE COVID-19 PANDEMIC. IT USES THE THEORY OF POSTTRAUMATIC GROWTH (PTG) BY CALHOUN AND TEDESCHI (2014). THE THEORY ASSUMES THAT TRAUMATIC EXPERIENCES CAN LEAD TO NEGATIVE MENTAL HEALTH CONSEQUENCES AND POSITIVE PERSONAL TRANSFORMATION. THE RESEARCH EMPLOYS SEMI-STRUCTURED INTERVIEWS AND A THEMATIC ANALYSIS BASED ON BRAUN AND CLARKE (2013). ALL INTERVIEWS WILL BE HELD ONLINE VIA ZOOM. THE STUDY AIMS TO CONTRIBUTE TO THE IMPROVED FUTURE PROTECTION OF HEALTHCARE WORKERS WORKING DURING A PANDEMIC.