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The Psychosocial Well-being of Healthcare Workers During the COVID-19

Pandemic in South Africa

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Abstract

Healthcare workers, particularly frontline medical workers such as nurses, have been at the forefront of fighting the COVID-19 pandemic, coping with significant stressors on top of what is already a demanding occupation. Those in low- and middle-income countries (LMICs) such as South Africa face additional and exacerbated stressors in addition to the typical strains as already-strained healthcare systems struggle to care for the growing number of patients. Furthermore, many healthcare workers must balance their work-related obligations with family responsibilities, potentially resulting in work-family conflict and parenting stress. Disease outbreaks such as COVID-19 create additional sources of parenting stress, with worries about family responsibilities and managing one's home life putting healthcare workers at risk of poor mental health. Perhaps unsurprisingly, healthcare workers around the world are showing increased rates of psychological distress and mental illness. However, little research has been conducted with healthcare workers in LMICs such as SA, who may experience greater adverse mental health outcomes due to accentuated or altogether different stressors, particularly during the present pandemic. There is furthermore a lack of research exploring experiences of parenting stress and work-family conflict, and the types of support and coping techniques that healthcare workers use to manage. The present project will thus explore the experiences of healthcare workers who are parents or caregivers, and have been involved in COVID-19 care, through approximately six focus groups held at selected facilities in Cape Town. The discussions will be examined using interpretive phenomenological analysis, and will hopefully serve to identify ways in which healthcare workers (especially those who are parents/caregivers) may be more effectively supported at the workplace, community and home in this and future health emergencies.

Keywords: psychosocial well-being, work-family conflict, parenting stress, nurses, healthcare workers, COVID-19 pandemic

COVID-19 was first identified in Wuhan, China in late 2019, and has since spread rapidly across the globe, resulting in over 5 million deaths as of November 2021 (World Health Organisation [WHO], 2021). Healthcare workers, particularly frontline medical workers such as nurses, have been at the forefront of fighting this disease, balancing their ethical commitment to patient care with physical exhaustion, mental stress, and the ever-present risk of infection and infecting others (Chersich et al., 2020). Workers in low- and middle-income countries (LMICs) face additional and exacerbated stressors as already-strained healthcare systems struggle to care for the growing number of patients (Moitra et al., 2021). South Africa, an upper-middle income nation home to approximately six million people, reported its first case of COVID-19 in March, 2020. Now over a year later, this number has reached three million and shows no sign of stopping (WHO, 2021). The Western Cape has some of the highest infection rates in the country, currently accounting for 15.8% of all cases and reporting 12,459 confirmed deaths (South African Department of Health, 2021). At the start of vaccine rollout in February 2021, 40,000 South African healthcare workers had contracted the virus, resulting in 663 lost lives (National Institute for Communicable Diseases, 2021). Not only are healthcare workers at significantly more physical risk than the general population, but so too is their mental well-being as the pandemic exacerbates and adds to the stressors ordinarily experienced in a chronically under-funded field.

Stressors Experienced by Healthcare Workers

Healthcare workers - nurses in particular - face a host of stressors, many of which are not unique to the time of COVID-19: They manage high workloads and risk of infection under what are often difficult working conditions (Robertson et al., 2020). Long working hours are common and have been associated with job dissatisfaction and burnout among high-income country healthcare workers (Stimpfel et al., 2012), the latter of which may progress to depression and even predict suicide risk (Pompili et al., 2006; Thomas, 2004).

Shift work, although essential within healthcare, has been associated with a myriad of negative physical and psychological consequences: A recent review of 48 systematic reviews found moderate associations between shift work and breast cancer, and long work hours and stroke (Rivera et al., 2020). Shift workers also appear significantly more likely to report burnout and low work engagement than non-shift workers (Poulsen et al., 2011; Wisetborisut et al., 2014). These and other stressors, including workplace violence and work-family conflict, are linked to adverse outcomes including poorer mental and physical wellbeing, lower quality of care, and increased intention to leave one's job (AlAzzam et al., 2017; Liu et al., 2019; Wisetborisut et al., 2014). This, in turn, is likely to compromise the hospital's ability to provide care, increasing the workload and stress levels among remaining staff (Blanco-Donoso et al., 2021).

The detrimental effects of typical healthcare work are exacerbated by additional and accentuated stressors as a result of the present pandemic, especially in LMICs. These may include increased workloads and longer work hours, staff and medical supply shortages (e.g., of personal protective equipment), stigma due to exposure to the virus (Zolnikov & Furio, 2020), and potentially morally injurious decisions (e.g., allocating scarce resources to patients most likely to survive; Greenberg et al., 2020). Healthcare workers take further strain under the same stressors experienced by the general population, including loss of loved ones, fear of infection and/or infecting others, uncertainty regarding prognosis, decreased contact with friends and family due to physical distancing, and the impact of social measures (such as closure of schools) aimed at curbing the pandemic. Altogether, this has spawned what Wong and colleagues describe as “a perfect storm of psychosocial stress” (2020, p. 380).

Mental Health of Healthcare Workers

Given these conditions, it is not surprising that healthcare workers around the world are suffering from an increase in psychological distress including insomnia, anxiety and

depression during the pandemic (Moitra et al., 2021; Pappa et al., 2020; Shaukat et al., 2020). Prevalence of symptoms varies widely, with a recent umbrella review finding rates of depression and anxiety to be as high as 26% and 25%, respectively (Sahebi et al., 2021). Frontline workers, particularly those treating COVID-19 patients, are consistently found to be at greatest risk, as are women and nurses (Karasu et al., 2021; Lu et al., 2020; Pappa et al., 2020). Indeed, rates of depression and anxiety among nurses are both estimated to be as high as 32% (Varghese et al., 2021). This may be due to the higher rates of anxiety and depression often reported by women (Albert, 2015), the pressure of family responsibilities, and reduced control over working conditions (Robertson et al., 2020). Burnout syndrome, typically conceptualised as involving emotional exhaustion, a subjective sense of ineffectiveness, as well as cynicism and detachment from one's job as a result of chronic workplace stress (Maslach, 2003), is also commonly reported by frontline healthcare workers (Khamisa et al., 2013; Shanafelt et al., 2012), and may be particularly prevalent during the present pandemic (Moitra et al., 2021). Furthermore, research from previous pandemics such as SARS indicate increased levels of insomnia, stress and suicide may ensue (Aknin et al., 2021).

However, there is an overall paucity of research on healthcare workers within LMICs (especially within Africa) where they may experience greater adverse mental health outcomes due to different or accentuated stressors, particularly during the present pandemic (Moitra et al., 2021).

Work-Family Conflict and Parenting Stress

In addition, many healthcare workers must balance their work-related obligations with family responsibilities, potentially resulting in work-family conflict (WFC) and parenting stress (PS). Although normal, PS may reach problematic levels as a result of certain circumstances and individual characteristics including low social support, single parenthood, financial strains, and parental depression (Crnic & Low, 2002; Mitchell, 2019). During the

COVID-19 pandemic and associated lockdown, PS may be increased by needing to homeschool children, the inability to rely on relatives or usual childcare arrangements, and – particularly for healthcare workers – a more demanding worklife, and the fear of infecting or being infected by their children (Brown et al., 2020; Spinelli et al., 2021). Higher PS is associated with more negative and dysfunctional parenting (Deater-Deckard, 1998), with direct adverse effects for the parent, child, and family system, as well as indirect effects on children's behaviour and wellbeing (Crnic & Low, 2002). Indeed, PS appears to be exacerbated by pandemic-related stress, and is associated with harsher parenting and worse parent-child relationships, as well as higher rates of emotional and behavioural difficulties in children (Chung et al., 2020; Spinelli et al., 2020).

Nurses are also prone to experiencing WFC, or difficulty fulfilling expectations at home due to pressure at work (Greenhaus & Beutell, 1985). WFC can be thought of as time-based (more time being spent at work than at home), strain-based (work-strain reducing ability to meet demands at home), behaviour-based (behavioural expectations at work incompatible with those at home), or energy-based (energy used at work impedes functioning at home; Greenhaus & Beutell, 1985; Greenhaus et al., 2006). WFC tends to be more common among female nurses (AlAzzam et al., 2017), perhaps due to shouldering the majority of household responsibilities (Chiang & Chang, 2012), as well as those who are younger, married, and parents (especially of young children; Asiedu et al., 2018; Hatam et al., 2016; Unruh et al., 2016). WFC may negatively impact both the healthcare worker and their place of work, predicting sleep deficiencies, exhaustion, burnout, poorer health, lower job satisfaction, and intention to leave (Blanco-Donoso et al., 2021; Callahan et al., 2018; Canivet et al., 2010; Jacobsen et al., 2014; Haji Matarsat et al., 2021). Furthermore, worrying about family responsibilities and managing one's home life have been found to put healthcare workers at risk of poor mental health during previous infectious disease outbreaks such as

COVID-19 (Robertson et al., 2020). It is likely that healthcare workers may be experiencing an even greater collision of responsibilities and expectations as they navigate increased demands in both work and family life during the present pandemic, although little research has been conducted on the topic.

Resilience and Coping Strategies

Psychological resilience and adaptive coping may play a vital role in safeguarding healthcare workers' mental health during this time of immense stress and uncertainty, as well as recovering once it has passed. Resilience currently appears to be stronger among those reporting greater job satisfaction and health (Tahara et al., 2021), with its effect on wellbeing mediated by use of coping strategies (Lorente et al., 2021; Ziarko et al., 2020). According to a review of 31 studies from the first year of the pandemic, healthcare workers' use of both problem-focused coping (such as learning about the virus and how to prevent infection) and certain emotion-focused strategies (such as positive reappraisal and seeking social support) are associated with improved psychological outcomes (Labrague, 2020). Efforts to escape or avoid problems also appear to be common among healthcare workers (Tahara et al., 2021), although this strategy has been associated with poorer psychological outcomes (Chew et al., 2020).

Social support appears particularly powerful, and has been associated with reduced rates of stress, burnout, anxiety, depression, and PTSD among healthcare workers (Heath et al., 2020; Killgore et al., 2020; Li et al., 2021; Sirois & Owens, 2021) as well as greater self-efficacy, sleep quality, and work-family balance (Lapierre & Allen, 2006; Xiao et al., 2020). Furthermore, social support may buffer the effects of low resilience on mental health (Li et al., 2021), and – through coping and resilience – may even lead to post-traumatic growth (Wu et al., 2021). However, healthcare workers may currently be more isolated than the general population due to the demanding, high-risk nature of their work (Rodríguez & Sánchez, 2020).

Ultimately, mitigating the effect of increased stressors on healthcare workers' psychosocial wellbeing involves a focus on both individual coping as well as organisational and environmental change, which may be more durable and effective at improving psychological outcomes (Heath et al., 2020; Ungar, 2013). It is thus important to improve the accessibility of opportunities such as social support from colleagues and supervisors, which has been linked to improved mental health outcomes among healthcare workers during past and present pandemics (Sirois & Owens, 2021; Ungar, 2011).

While healthcare workers' mental well-being during the COVID-19 pandemic has received considerable academic attention (e.g. Karasu et al., 2021; Lu et al., 2020; Pappa et al., 2020), most research centres on rich, Western, educated and industrialised nations (Aknin et al., 2021). Less developed contexts such as in South Africa may facilitate different forms of psychological distress due to factors such as under-developed healthcare infrastructure, lack of support, economic pressures, and country-specific government and societal responses to the pandemic (Moitra et al., 2021). Relatively little has been written about frontline workers – either in LMICs or during the pandemic – despite being at higher risk for mental health problems. Furthermore, there is minimal research on either work-family conflict and

parenting stress, or resilience and coping strategies, among healthcare workers in such contexts and/or during the current pandemic.

Although vaccination roll-out is underway, the virus and the mental distress it has evoked is likely to linger for years to come (Aknin et al., 2021). It is thus necessary to develop a deeper understanding of how healthcare workers may be better supported, and their resilience enhanced,

In order to explore the psychosocial well-being and needs of nurses who are also parents or caregivers in South Africa during the COVID-19 pandemic period, the following research questions are posed: How have frontline nurses working with COVID-19 patients experienced balancing their work and family lives during the pandemic, and what challenges have they encountered fulfilling their duties in each sphere? What strategies or resources have they been using to cope, both personally as well as in the maintenance of work-family balance? Lastly, what psychosocial support do they believe they might benefit from? The findings of this research are intended to inform policy and decision-making by identifying ways in which frontline healthcare workers (especially those who are parents/caregivers) may be more effectively supported at the workplace, community and home. A more holistic conceptualisation of healthcare workers' experiences and needs stands to benefit not only the workers themselves, but also their patients, families, and institutions.

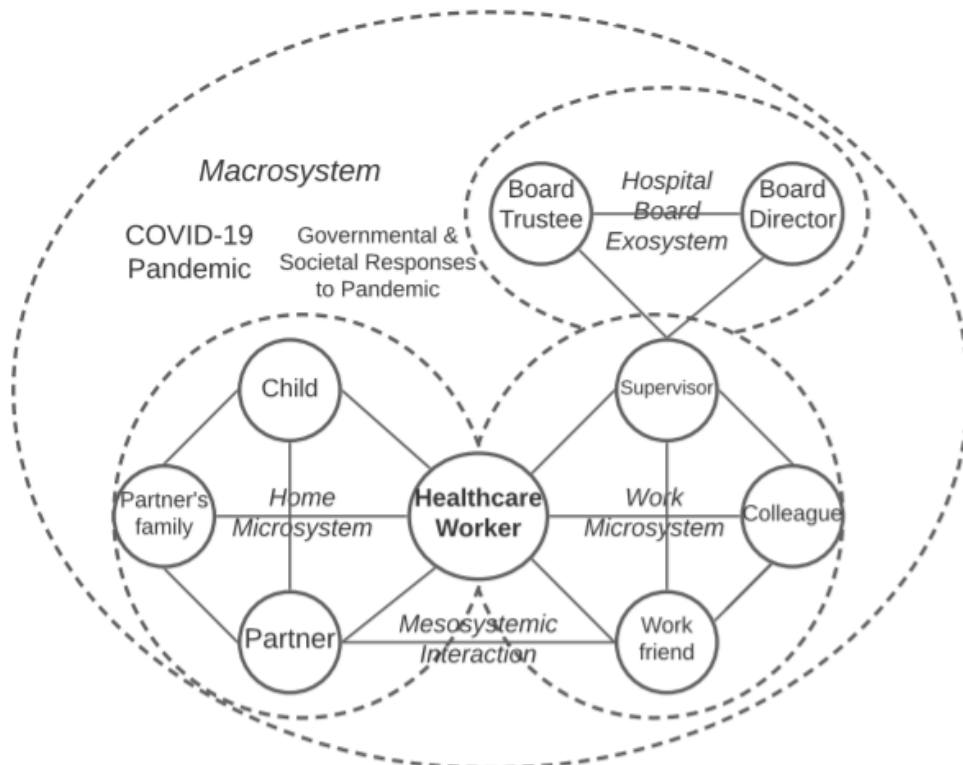
Theoretical Framework

This research will be guided by Neal and Neal's (2013) expansion on Bronfenbrenner's Ecological Systems Theory (1977, 1979), a framework widely employed to understand human development in context. According to this model, individual development is directly and indirectly shaped by the various interactive and overlapping settings in which they are embedded. Neal and Neal (2013) define such settings in terms of social interactions

either involving or surrounding the individual of focus, thus shifting focus from physical places towards the type of interaction and whom it involves.

These settings connect to form a network of influence around the individual, and may be classified as follows: Microsystems are the settings (i.e. social interactions) which include the focal individual, whereas mesosystems consist of the overlap between two or more microsystems (e.g., home and place of work). Exosystems are settings in which the individual is not present (e.g., hospital governing boards), instead being influenced by the setting's effect on their social interactions. Lastly, macrosystems consist of the broad cultural, political and legal forces that shape social interactions (e.g. governmental and societal responses to the pandemic). The macrosystem further includes reliable patterns of human social interaction such as the tendency to interact with those who are similar in some way (e.g., race or gender). Also operating at a higher level is the chronosystem, which refers to the effect of time on patterns of social interactions (e.g., changes in number of patients and access to resources during different stages of the pandemic; Neal & Neal, 2013).

Figure 1



Based on Neal & Neal's (2013) Environmental Systems Model

This theoretical perspective brings to light the complex, interactive webs of social relations and forces in which individuals are embedded, thereby more accurately identifying the sources of change in their development and behaviour. For example, it helps conceptualise the ways in which the pandemic, and the governmental response to it (both macrosystem forces), impact individuals through various lower-level microsystems such as home and work. This perspective also allows for the recognition of obstacles and opportunities, such as social support, within one's broader environment, and the potential of individuals to respond constructively when their ecological conditions are favourable (Bronfenbrenner, 1979). This is consistent with Ungar's (2011, 2013) social ecological view of psychological resilience as the ability of individuals to find and utilise resources in their environment necessary to flourish during times of adversity, thereby emphasising the environment's role in either allowing or constraining coping behaviours.

Furthermore, the theory helps account for work-family conflict and parenting stress by showing how the ability of persons to meet the expectations associated with a societal role (i.e. parent or worker) is directly affected by the demands, stresses and supports stemming from other settings. By acknowledging the interconnections between the individual healthcare worker and the various settings they inhabit, resources and services may be tailored to support them more adequately.

Method

This research was guided by the use of Interpretive Phenomenology Analysis (IPA), a flexible qualitative approach concerned with exploring how individuals experience and interpret their personal and social world (Pietkiewicz & Smith, 2014). IPA aims to develop an 'insider perspective' on participants' realities through the amalgamation of three

philosophies: Phenomenology (how individuals perceive specific phenomena), hermeneutics (how language mediates one's experiences and how these are interpreted), and idiography (thorough and systematic analysis of individual cases from within their particular contexts; Pietkiewicz & Smith, 2014; Willig, 2008). IPA is distinguished from phenomenology by advancing beyond rich descriptions of individual experience to acknowledge the impossibility of direct access to such experiences, and therefore the inevitable implication of the researcher's perspective on the data and its interpretation (Willig, 2008). The researcher thus engages in a process termed 'double hermeneutic' whereby they attempt to understand the participant's experiences as the participants do the same (Love et al., 2020).

The results generated may lend themselves well to use in policy given that IPA aims for a deep, contextualised understanding of a specific group's experiences, needs and priorities, which may not otherwise be heard (Charlick et al., 2016). It is also compatible with Ecological Systems Theory as they emphasise both context and participant's perceived phenomenological 'reality' in order to fully understand their behaviour and growth (Bronfenbrenner, 1979). IPA's focus on the intersubjective, temporal nature of experiences further compliments the interpersonal, time-bound nature of nurses' work and family lives during the course of the pandemic (Brown et al., 2018).

Procedure

Focus group discussions lasting 60-90 minutes were held to explore the psychosocial wellbeing, resilience, and coping strategies of healthcare workers. This format was inherently flexible, allowing for the collection of a large amount of in-depth data from multiple participants at once while also enabling interaction among them – considered by many to be the principle justification for using this method (Webb & Kevern, 2001). Focus groups were particularly suitable since they are considered effective at exploring what is known about important phenomena (Powell & Single, 1996), investigating the attitudes and needs of staff,

and generating solutions to shared problems (Kitzinger, 1995). The group dynamic elicits a wider variety of communication forms (e.g., joking) which not only deepened the observer's understanding of specific participants, but also of the group's shared understandings and the reasoning behind them (Gibbs, 1997). The focus group thus allowed for greater exploration and clarification of views than standard interviews (Kitzinger, 1995), eliciting not only *what* members think, but *why* they think that way (Morgan, 1988). A high degree of face validity was thus achieved as participants challenged or confirmed each other's views (Krueger, 2014).

Two groups of nurses and nursing assistants were recruited at both New Somerset Hospital and Groote Schuur Hospital, with one held at Macassar Community Health Clinic in Cape Town. Since almost all attendees were vaccinated, and data collection took place in between waves of the pandemic, meetings were held in-person with use of social distancing, masks, ventilation and hand sanitiser. After seeking informed consent from each participant, the researchers began the sessions by emphasising the maintenance of confidentiality and lack of consequences for participant's contributions in order to alleviate possible fear and discomfort surrounding disclosure of sensitive or controversial information with the group (Gibbs, 1997). The group moderator played a critical role in keeping the conversation on track and encouraging balanced participation among group members, while avoiding biasing the discussion by conveying personal opinions or favouritism (Jayasekara, 2012). They posed various open-ended questions from the discussion guide (Appendix E), encouraging engagement and debate, and drawing out differences and commonalities (Kitzinger, 1995). The second researcher simultaneously monitored the audio recording, kept track of time, and made notes regarding non-verbal expression and contextual details (Tong et al., 2007).

Participants and Sampling

Participants were sampled using non-probability purposive sampling given that the study aimed to achieve a deep understanding of the experiences of a particular group of people, rather than broad generalisability (Stewart & Williams, 2005; Willig, 2008).

Sampling criteria were thus initially set as:

- a) Individuals have been working as nurses or nursing assistants, caring for COVID-19 patients;
- b) Have been working in one of the selected healthcare facilities in Cape Town;
- c) Are a parent of caregiver.

The researchers reached out to the nurse managers and clinical facilitators at the selected facilities, who then assisted in sampling participants and scheduling groups. However, three of the participants in the first groups turned out to not be parents/caregivers, or were not living with their children. Given the lack of eligible and available participants, and the time pressures under which the research was being conducted, it was decided to continue nonetheless. It was found that these participants were still able to speak to most of the research questions, including their experiences of balancing work lives with extended family such as parents or siblings.

Given that IPA requires detailed case-by-case analysis, group sizes were deliberately kept small, with four to six participants in each (Pietkiewicz & Smith, 2014). This also ensured that each individual was able to contribute sufficiently and remain actively involved (Willig, 2008). Two additional participants per group were also sampled in anticipation of possible group atrophy and no-shows (Stewart & Williams, 2005). The total number of participants came to 22 across five groups.

Having nurses and nursing assistants meet together increased group homogeneity which facilitated the comparison of groups between locations, and allowed participants to feel comfortable and to reference and compare similar realities (Barbour, 2005; Jayasekara,

2012). Such homogeneity is also in line with IPA, which aims to explore the experiences of a specific group for whom the research questions are relevant (Pietkiewicz & Smith, 2014).

Heterogeneity was still be present due to differences in other factors (e.g., exact work roles, family structure and parenting responsibilities) thereby generating diversity within groups which allowed for a greater range of perspectives to be discussed (Kitzinger, 1995). The fact that several participants were already familiar with one another through work allowed interaction to be more organic and the meeting itself less artificial, thereby contributing towards higher ecological validity (Willig, 2008).

Data Analysis

Data was/will be analysed according to the following nine steps developed by Love et al. (2020) for use of IPA with focus groups:

1. Immersion in the data, including verbatim transcription and descriptions of tone, emotion, and group dynamics.
2. Identifying the researchers' orientations and potential biases, facilitated by keeping field-diaries to record thoughts and reflections throughout the research process. This assists us in "bracketing" ourselves from the data, preventing our preconceived ideas and attitudes from influencing the emerging analysis (Charlick et al., 2016).
3. Analysing significant life experiences and relationships across three levels: 'Descriptive' (focusing on the content of the participant's speech), 'linguistic' (exploring the use of language), and 'conceptual' (moving away from what has been said and focusing on interpretation). This also involves identifying how participants tell stories, as well as the different patterns and functions of language present in the data.
4. Identifying emerging themes in the data by using guiding questions and considering how the details of the data relate to the text as a whole.

5. Organising themes, grouping similar ones together and identifying superordinate themes.
6. Collating all themes and superordinate themes in order to consider the importance and relevance of each.
7. Checking for the recurrence of themes, as well as how they relate to the individual participants and the collective groups.
8. Consulting supervisors to check the credibility of the preliminary analysis.
9. Organising themes into a hierarchy following a logical sequence by referring back to and reflecting on the research questions and considering the emerging 'story' presented in the findings.

Ethical Considerations

Ethical approval for this project was granted by the Research Ethics Committee of the Department of Psychology at the University of Cape Town (UCT) (Appendix A), the Human Research Ethics Committee (Appendix B), and the National Health Research Database (Appendix C).

Informed consent was sought from participants in written form before the start of each focus group discussion, with both the researcher and participant retaining a copy (Appendix D). This involved a thorough explanation of what the research would involve, who was responsible for it, and what it would require of the individual. Participants were assured that their involvement was voluntary, that they were free to withdraw at any point without providing a reason, and that their decision regarding participation would not negatively affect them or their employment. Participants were informed of how each session would be recorded to ensure accurate reporting, and how these recordings would be transcribed with the help of third-party transcription services. Researchers made known that any personally identifying information would be removed during transcription (unless participants were at

risk of potential harm), and contributions could be later removed if requested by participants. Data was stored on a secure, password-protected server at UCT accessible only to the research team. All pseudo-anonymised information and audio recordings will be destroyed once transcribed, as will all transcriptions after a period of 5 years.

The present research was not expected to entail any major risks. The probability of spreading COVID-19 was low given that most attendees had been vaccinated, and safety protocols were followed. However, some psychological distress did arise through discussion of sensitive topics such as witnessing death and suffering. Moderators thus took care to not dwell on painful experiences, emphasising that contributions were voluntary, and suggesting participants contact the South African Anxiety and Depression Group if needed. Following their sessions, participants were provided with the opportunity to discuss any issues or questions with the researchers, as well as support resources such as a COVID-19 parenting tips sheet (<https://www.covid19parenting.com/#/home>). Although steps were taken to protect anonymity, participants were informed that researchers were unable to enforce confidentiality by fellow participants, and that there was the possibility of being recognised in the published research by their quotes or stories (Corbin & Morse, 2003).

Participants stood to benefit from the research by being able to discuss their experiences with fellow healthcare workers and parents, potentially providing them with a degree of catharsis, validation, empowerment, and even healing (Corbin & Morse, 2003). In the long-term, participants may potentially benefit through the effects of the research on policy and the availability of support to healthcare workers. However, participants did not receive financial compensation for their involvement, other than refreshments including muffins and coffee to convey the researcher's gratitude for their participation and help prevent attrition.

Reflexivity

Reflexivity is an integral part of conducting qualitative research as it promotes transparency and rigour, increasing the confidence and credibility of findings (Darawsheh, 2014). Research findings do not emerge naturally – they are shaped by the researchers' choices throughout the research process (Davis, 2021). The researcher thus ought to reflect on these decisions, thereby developing insight into their influence on the research (Lazard & McAvoy, 2020). Reflexivity therefore ought to be employed throughout the research process, from designing the research project, collecting and analysing data, to disseminating findings (Darawsheh, 2014).

Epistemological reflexivity enabled us to see how the nature of the research itself may have influenced the findings (Willig, 2008). For example, the questions we asked evoked specific answers pertaining to work-family balance and workplace support, rather than those regarding the effect of the pandemic on their relationship with their children, or their experiences of losing colleagues to COVID-19. The use of focus groups also influenced what was found: Their group-based nature precluded exploration of particularly personal, sensitive, or “shameful” experiences, and allowed more vocal participants to contribute more, while those who were shy or particularly exhausted contributed less. We also found some of the messages conveyed by literature on the topic of healthcare workers' wellbeing to be challenged: Although each participant expressed much distress as a result of their experiences, they also exhibited remarkable signs of resilience of growth.

Personal reflexivity encouraged us to recognise the contexts that shaped the research process through questioning our own positionality, motives and assumptions (Lazard & McAvoy, 2020; Reid et al., 2018). In our research, this required thinking through the ways in which factors such as race, nationality, and our level of research experience may have influenced the study and the interaction between ourselves and the participants. Such awareness and humility was particularly essential while facilitating the focus group

discussions. We also took care not to project our own moralistic beliefs regarding work and family lives onto our participants, or reinscribe these beliefs when interpreting the data.

Asking clarifying questions during the focus group discussions and having data transcribed and analysed by multiple researchers aided in promoting an accurate reflection of participants' experiences, reducing personal bias and errors.

Race and language were marked sources of difference – and thus potential discomfort – between us and the participants: Whereas we are both “white”, speaking English as a first language, the majority of our participants were “black” or “coloured”, speaking English as their second or third language. Although the discussions were held in English, we attempted to pose questions in the participants' own words to mitigate the potential language barrier. We also attempted to “bracket” ourselves, our preconceptions, experiences, and knowledge, from what emerged from the groups, instead striving to adopt the participants' own perspectives. After each group concluded, we took time to reflect and make notes on the experience, and discuss it with one another in order to heighten our awareness of how we may have influenced it, and it may have influenced us. We found ourselves feeling increasingly sympathetic to and frustrated on behalf of the nurses given the pain and strife that characterised many of their experiences, but also in awe of their capacity to persevere and even thrive despite their circumstances.

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Appendix A
UCT Ethical Clearance

UNIVERSITY OF CAPE TOWN



Department of Psychology

University of Cape Town Rondebosch 7701 South Africa
Telephone (021) 650 3417
Fax No. (021) 650 4104

21 July 2021

Robyn Kruyer and Hannah Wolpe
Department of Psychology
University of Cape Town
Rondebosch 7701

Dear Prof. Ward

I am pleased to inform you that ethical clearance has been given by an Ethics Review Committee of the Faculty of Humanities for your study, *Knowledge, Attitudes and Practices on COVID-19 and the Psychosocial Well-being of Health Care Workers during the COVID-19 Pandemic South Africa*. The reference number is s PSY2021-025.

I wish you all the best for your study.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Lauren Wild'.

Lauren Wild (PhD)
Associate Professor
Chair: Ethics Review Committee

Appendix B
Health Research Ethics Committee Ethical Clearance



UNIVERSITY OF CAPE TOWN
Faculty of Health Sciences
Human Research Ethics Committee



Room G50- Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6492
Email: hrec-enquiries@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

30 August 2021

HREC REF: 479/2021

Prof C Ward
Department of Psychology
Upper Campus UCT
Email: Catherine.ward@uct.ac.za
Student: hannahwolpe@gmail.com & kryrob001@myuct.ac.za

Dear Prof Ward

PROJECT TITLE: THE PSYCHOSOCIAL WELL-BEING OF HEALTHCARE WORKERS DURING THE COVID-19 PANDEMIC IN SOUTH AFRICA. (HONOUR DEGREE – MS HANNAH WOLPE & MS ROBYN KRUYER)

Thank you for submitting your study to the Faculty of Health Sciences Human Research Ethics Committee (HREC) for review.

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

This approval is subject to strict adherence to the HREC recommendations regarding research involving human participants during COVID -19, dated 17 March 2020; 06 July 2020 & 01 July 2021.

Approval is granted for one year until the 30 August 2022.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.
(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

The HREC acknowledge that the students: Ms Hannah Wolpe & Ms Robyn Kruyer will also be involved in this study.

Please quote the HREC REF 479/2021 in all your correspondence.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

• Yours sincerely

PROFESSOR M BLOCKMAN

CHAIRPERSON, FACULTY OF HEALTH SCIENCES HUMAN RESEARCH ETHICS COMMITTEE

Federal Wide Assurance Number: FWA00001637.

Institutional Review Board (IRB) number: IRB00001938

NHREC-registration number: REC-210208-007

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2006), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines. The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

Appendix C

National Health Research Database Ethical Clearance



STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za
tel: +27 21 483 0866; fax: +27 21 483 6058
5th Floor, Norton Rose House., 8 Riebeeck Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_202109_002
ENQUIRIES: Dr Sabela Petros

University of Cape Town
Anzio Road
Observatory
Cape Town
7925

For attention: Prof Cathy Ward, Dr Hlengiwe Sacolo

Re: The Psycho-Social Wellbeing of Healthcare Workers During the COVID-19 Pandemic in South Africa

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Khayelitsha (Site B) CHC	Dr Leigh Wagner	021 360 5228/ 5238
Macassar CDC	Sr Gail Viana	021 857 2330
Mfuleni CDC	Mr Mzwamadoda Gaji	021 350 0801

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted and the constraints caused by the Covid-19 epidemic above are respected and adhered to.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**Annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Dr M Moodley', written over a horizontal line.

DR M MOODLEY
DIRECTOR: HEALTH INTELLIGENCE

DATE: 3 November 2021
CC

Appendix D

Information Sheet and Consent Form for Participants

A. Information sheet

The Psychosocial Well-being of Healthcare Workers During the COVID-19 Pandemic in South Africa.

Dear Nurses,

You are invited to take part in a focus group discussion on The Psychosocial Well-being of Healthcare Workers During the COVID-19 Pandemic in South Africa. This study is being conducted by the University of Cape Town. The study aims to explore the psychosocial wellbeing of healthcare providers and understand their challenges and areas where they may require support. Through this study, we hope to learn more about how COVID-19 has affected your lives together with those around you, particularly your experiences of work and parenthood during the pandemic.



Before you decide whether you want to participate, it is important for you to understand why the research is being done and what it will involve. The following information will be read and explained to you carefully. You will have a chance to ask any questions that you may have.

Who can participate?

In order to participate, the following need to be true about you. You need to:

1. Be involved in the prehospital care, screening, diagnosis, treatment or care of COVID-19 patients
2. Be a parent or caregiver of a young child or adolescent under age 18
3. Have been working in South Africa for the past 3 months
4. Be working in a selected health facility in the Western Cape
5. Have provided consent to participate in the study

Do I have to participate?

Your participation is completely voluntary. If you decide not to participate, there will be no negative consequences for you. You may also stop participating at any point during our discussion and you do not need to give any reasons for this. You will not be punished or penalised if you decide not to participate. Your decision to participate or not participate will not affect your job nor be a condition for employment. You are only consenting to the processes outlined in the information and consent form at hand

You can have up to a week to decide to participate in the study. After you have received all the information about the study and provide consent, you can participate immediately.

What would happen if I take part?

You will be invited to participate in a focus group discussion session with other healthcare workers within your region. The focus group session will take place at your institution of work,

or via online platforms (such as Zoom or Skype), and last between 90 minutes to 2 hours. You will be provided with data for internet connection.

We will conduct discussions on the following main themes: (1) work-family balance and parenting during COVID-19, (2) how you have been coping, and (3) psychosocial needs and support. During the focus group discussion, we would like to record the session so that we can accurately represent your answers. This recording will be kept confidential and private. If you object to any part of the recording, that part will be erased.

Are there any risks to participating in this study?

We do not expect any major risks in participating in this study, because we will be talking about your daily life and work, the way you would with colleagues and friends. If you become distressed or upset when answering the questions, we are happy to discuss any issues you may have, and to help refer you to support services if you would like.

What will happen to the information I provide?

We ask your permission to record the interview. After the interview, it will be transcribed (written down), and at that point your name and any other identifying details will be removed from the transcript and the recording destroyed.

The information that you provide will be kept strictly confidential and private unless there is risk of significant harm to you. This is a promise that the research team makes. We ask you to make the same commitment to others who will be in the group with you: that you will keep what they say confidential. However, please note that we cannot guarantee that they will keep what you say confidential.

If there is any risk of harm to you, we will discuss possible sources of support following this discussion. If necessary, we may also make a referral to the appropriate services for further assistance.

The transcript will be stored in password-protected servers at the University of Cape Town. Data from the online survey and transcripts from online focus group discussions will be kept for a period of 5 years by the researchers.

Your name will not appear in any report or publication about the results of this study. We may share anonymised direct quotations from your interview in these reports and publication, but these will not be linked to you in any way.

Once we have finished this research, we would be delighted to share with you the results as soon as they are available. How would you like to receive these results?

Data Protection

The University of Cape Town is responsible for ensuring the safe and proper use of any personal information you provide. It will be used solely for research purposes.

Questions

If you have any questions or concerns, you are welcome to contact one of the co-Principal Investigators, Zandile Masangane (Tel: +268 7607 553; Email: masanganezand07@gmail.com), Dr. Hlengiwe Gwebu (Tel: +27 63 547 1981); Email: hlengiwe.gwebu@uct.ac.za) and Professor Catherine Ward (Tel: +27 21 650 3422; Email: catherine.ward@uct.ac.za)

If you have any questions or concerns about your rights as a study participant, you are welcome to contact one of the following ethics committees:

Name	Telephone	Email
Mrs Rosalind Adams University of Cape Town	+27 21 650 3417	Rosalind.Adams@uct.ac.za

B. Consent Form for Healthcare Workers

(I) Written Consent Form

1. TO BE COMPLETED BY INTERVIEWER

Date:

Name of Interviewer (Print):

Signature of Interviewer:

2. TO BE COMPLETED BY PARTICIPANT

Name of Respondent (Print):

I understand that:

1. I have been given and read the information in this consent form explaining this study.
2. All questions I had on this study have been answered to my satisfaction.
3. I clearly understand what will take place if I agree to take part in this study.
4. I also understand that I have the ability to withdraw and discontinue with the study at any point.
5. I understand that I will be audio-recorded during this interview unless I object and that I can ask for anything I say to be erased.
6. I am aware that all information I will provide in this study will be kept private unless there is a risk of significant harm to myself or anyone else.
7. I understand that all the information I provide will only be used for the purposes of this study.
8. I understand who will have access to my data and how it will be stored and published.

9. I understand how to make a complaint or raise any concerns about my participation.
10. I understand that my job/position at work will not be affected by my participation in or withdrawal from this study.
11. On my own free will, I agree to take part in this study.

Signature of respondent: _____ Date: _____

Thank you for your time!

Appendix E

Focus Group Discussion Guide for Healthcare Workers

I would like to thank you all for taking the time to participate in this focus group discussion. I am from [INSERT ORGANISATION AFFILIATED WITH] and I am working on a study entitled: “The Psychosocial Well-being of Healthcare Workers During the COVID-19 Pandemic in South Africa”. Through this study, we hope to learn about how COVID-19 has affected your life and the lives of those around you, as well as the type of psychosocial support you may benefit from.

The full discussion will take 90 minutes to 2 hours to complete. There are no right or wrong answers or comments in this interview, and we are interested in having an open conversation on your views and suggestions. We will record the discussion on audio recorders to ensure that we capture your views accurately. We will also provide you with a recording of the interview for review and further input where necessary.

All points made during the discussion will be confidential and only viewed by the research team. In published reports, we will keep your name and identity private. Your de-identified data may be shared with other researchers in the future.

If any of the questions asked are unclear, please let me know so that I can explain them differently. Your honest answers will be appreciated.

[If conducting over Zoom]: Before we begin. Let us try to do the following:

Zoom has numerous features designed to control online meetings, prevent disruption, and help participants communicate effectively.

-Raise Hand / Lower Hand

-Write on the chat box

-Use some Zoom icons: (agree, disagree, clap, need a break, away)

-Additional icons are available by clicking the more button.

Before we begin, are there any questions?

A. COVID-19 related experiences

1. The COVID-19 pandemic has changed nearly all our societal and operational norms. How has COVID-19 affected your day to day life?
 - Personal
 - Family
 - Work

B. Work-family balance and perceived parenting stress

1. How do you balance between family responsibilities and work-related activities?
 - Before and after COVID-19
 - Time spent at home and at work
 - Family and work-related strain
2. What challenges do you encounter in fulfilling daily duties at work and at home?
3. What kind of support has been helpful in maintaining work-life balance?
 - Family/social support
 - Work related support

C. Resilience and coping strategies during the COVID-19 pandemic

1. Do you have the capacity to deal successfully with the challenges presented by the COVID-19 pandemic? Please elaborate?
 - Personal and work-related challenges
 - Acceptance of the reality
 - Social support
 - Confidence in oneself and service provision
2. What coping strategies have been helpful during the COVID-19 pandemic?
 - Problem-solving strategies (*efforts to alleviate stressful circumstances*).
 - Emotion-focused coping strategies (*involve efforts to regulate the emotional consequences of stressful or potentially stressful events*).

D. Psychosocial needs and support

1. What support structures are available to nurses during the COVID-19 pandemic? Have you been able to access them?
 - Are they helpful?
 - Are there areas that require improvement or different approaches?
2. What programs would you put in place to support nurses/paramedics during future pandemics?
 - How do you feel about online support programmes/resources for nurses/paramedics?
 - Do you feel you would benefit from parenting support programmes?

Feedback: how was your experience of participating in this Zoom/Skype interview? Are there any other online platforms you would recommend for future use, e.g. WhatsApp, Facebook, etc.?

Thank you for your time!