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RESEARCH ARTICLE:

Psychological PPE – Reflections on How to Implement Mindful Interventions to Protect the Healthcare Workforce

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Abstract

Interest in Mindfulness-based interventions (MBIs) with healthcare professionals has become increasingly popular. However, healthcare professionals' busy schedules and low help-seeking behaviour requires the intervention to be easily accessible, convenient, and practical. This paper explores the reflections of multidisciplinary healthcare professionals regarding implementing a brief online MBI to draw on lessons learned that could guide future implementation and interventions in similar multicultural, resource-constrained settings. An online MBI was implemented with healthcare professionals (HCPs) working in urban and rural hospitals in South Africa during the first wave of COVID-19. Fifty-five healthcare professionals from various disciplines participated in a four-week online training programme via the Zoom platform. Participant reflections and feedback were collected via WhatsApp and Zoom room chats. The data collected were thematically analysed. Reflections from the implementation of the MBI were classified into questions of where, when, who, what, why, and how. The results reflect that a four-hour online mindfulness-based intervention could work more effectively if departments offered and supported the programme during work hours. The findings also reveal the greater potential for a brief online MBI to enhance resiliency in HCPs, especially during a pandemic emergency, as demonstrated in the study. The study proposes that mindfulness training could be offered to HCPs at many levels to help with psychological first aid and task shifting to reduce stress and prevent burnout.

Keywords*: healthcare professionals; meditation; mental health; mindfulness; stress*

Introduction

Burnout is prevalent among healthcare professionals (HCPs) (Micklitz *et al*., 2021). Most frontline HCPs in South Africa working during COVID-19 experienced elevated perceived stress and burnout levels (Osman *et al*., 2021). Considering the elevated mental health risks posed to HCPs and the consequences on patient care, healthcare departments should invest in mental health programmes for their employees to facilitate stress reduction and increase healthy coping mechanisms. Mindfulness is a state of mind that involves paying attention with full awareness in the present moment, non-judgmentally, and with curiosity (Kabat-Zinn, 2013). Mindfulness-based interventions (MBIs) aim to cultivate a state of mindfulness through formal (e.g. three-minute breathing space meditation, body scan, etc.) and informal practices (e.g. mindfulness in everyday life activities like mindful eating or walking (Zhang *et al*., 2021). There is ample research to support the concept of MBIs being effective in stress reduction and in the prevention of burnout among HCPs (Osman *et al*., 2021; Ruiz-Fernández *et al*., 2020). However, standard eight-week MBIs can be challenging due to the programme's time commitment and intensity (Demarzo *et al*., 2017). Therefore, shorter online MBIs could be possible alternatives offering similar benefits in stress management with ease of access and low cost (Danilewitz *et al*., 2018).

The socio-political context in which HCPs practice medicine is critical and deserves consideration as it can affect the individuals' motivation and, subsequently, impact negatively on patient care (Diab and Mohamed-Metwally, 2019). Close to 43,6% of the population in South Africa reside in rural areas with limited and under-resourced facilities, and a considerable treatment gap, resulting in limited healthcare access and poorer health outcomes (Besada *et al.,* 2020). Engelbrecht *et al*. (2021) highlight that before the COVID-19 pandemic, the South African healthcare system was already under pressure due to poor governance and the unequal distribution of resources.

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Thus, COVID-19 added stressors to an existing overworked task force. Even though mental health was a concern during this time (Engelbrecht *et al.*, 2021), it was still not prioritised due to a lack of human resources (Opondo *et al.*, 2020). Though MBIs are increasing in popularity, context must be considered for them to be effectively adapted (Loucks *et al.*, 2022). Research on brief online MBIs is sparse (Klatt *et al.*, 2021), with even fewer exploring the experiences of front-line workers in multi-cultural resource-constrained environments like South Africa. Whitesman *et al.* (2018) recommend more research on MBIs in context-specific settings to enhance their efficacy. There is a lack of information about what hinders and facilitates the acceptability of MBIs, to integrate the best implementation policy in healthcare systems (Andermo *et al.*, 2021). This study aims to explore the in-depth experiences of HCPs in terms of factors that hinder or facilitate a brief online MBI and focus on the reflections of the researchers to derive guidelines that will promote the effective future implementation in healthcare settings in resource-constrained environments like South Africa in times of intense stress.

Methodology

This study was conducted online within the overburdened healthcare system in South Africa during the first wave of the COVID-19 pandemic while the country was in lockdown level 3 between the periods of June 2020 to August 2020. This paper is a continuation of a more extensive study. The original research was a mixed-method design, with the first publication commenting on the effectiveness of an MBI on stress and burnout in HCPs (Osman *et al.*, 2021). The second publication was a photovoice study exploring the process of mindfulness on HCPs' sense of self (Osman and Singaram, 2022). The current manuscript is an explorative qualitative reflection that focuses on the lessons learned from analysing factors that hinder or facilitate the implementation of the MBI, as commented on by the participants, to devise guidelines for effective future implementation. This study utilised purposive snowball sampling to identify HCPs working in South Africa. Information and the link to join the study were posted on noticeboards of WhatsApp and other social media platforms like Facebook targeting interns, medical students, registrars, and other healthcare professionals. HCPs on these social media platforms were encouraged to share the invitation with fellow colleagues. This sampling technique was deemed most appropriate for the study as it effectively attains information-rich data from samples with specific characteristics (Naderifar *et al.*, 2017). The sample size comprised a total of 55 HCPs to participate in the study. It consisted of 43% medical doctors, 21% psychologists, 14% physiotherapists, 12% occupational therapists, and 10% of other allied health professionals *i.e.,* radiographers, podiatrists, chiropractors, and dentists. The geographical distribution of participants was across four provinces of South Africa, namely KwaZulu-Natal, Gauteng, Limpopo, and the Western Cape. Most of the HCPs worked in urban, public hospitals. These demographic variables are illustrated below in Figure 1.

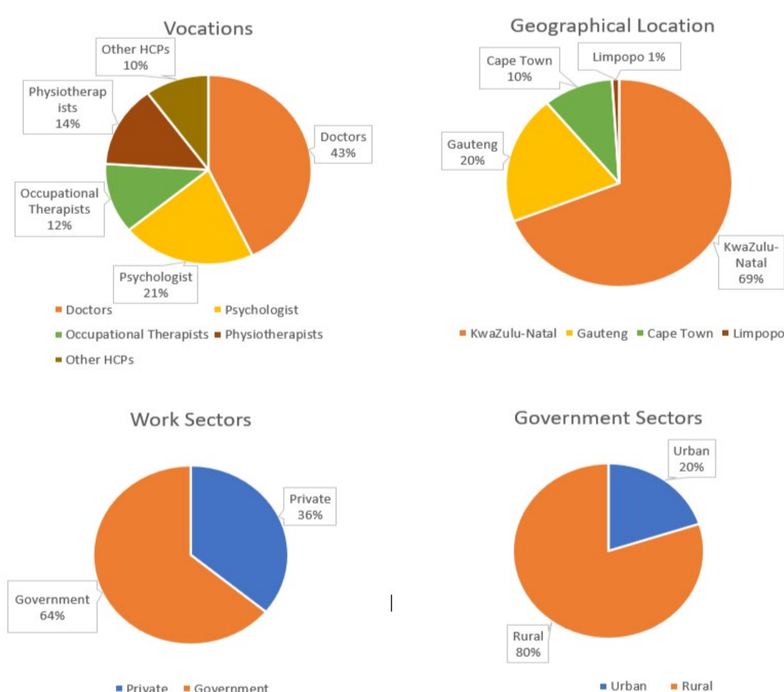

Figure 1: Demographic variables

Ethical approval was obtained from the Humanities and Social Science Research Ethics Committee (HSSREC/00000848/2019) of the University of KwaZulu-Natal and the KZN Department of Health (KZ_201911_023). Informed consent was obtained from all participants before data collection. During the MBI sessions, participants were given the option to turn off their cameras and microphones not to interrupt the process but to uphold the ethical consideration of anonymity.

A four-week MBI was adapted for online use and facilitated by two qualified and experienced mindfulness teachers via Zoom from 14 July to 5 August 2020. The intervention consisted of four one-hour group sessions, the structure of which is outlined in Table 1 below. The sessions were offered on Tuesday and Wednesday evenings at 6 pm; therefore, f the HCPs could not make the one day, they could join the next day. The Zoom links were sent on a group chat and individually *via* emails for easy access and preference. Audio and video clips of guided meditations were provided via the WhatsApp group to supplement the interventions and encourage home practice.

Table 1: Structure of the online MBI

Week 1
Welcome and Introduction
Raisin Exercise and Inquiry
Body Scan and Inquiry
Input on Autopilot and Mindfulness (explained as text in manuals provided and using stories in session)
Poem
3-Minute Breathing Space and Inquiry
Home Practice explained (provided as videos and audios via WhatsApp) 3-min breathing space and body scan meditation through guided meditation audios
Reflection and support (voluntary group discussions)
Week 2
Check-in on home practice (poll and reported challenges in chat box in Zoom)
3-Minute Breathing Space
Review of Home Practice
Awareness of breath and Inquiry
Yoga and Inquiry
Input on Breath and Body Awareness (explained as text in manuals provided and using stories in session)
Poem
Walking Meditation and Inquiry
Home Practice (provided as videos and audios via WhatsApp) Mindful Movement yoga audio and 8-minute sitting meditation audio
Reflection and support (voluntary group discussions)
Week 3
Check-in on home practice (poll and reported challenges in Zoom chat box)
3-Minute Breathing Space
Review of Home Practice
Awareness of Thoughts and Inquiry
Input on Stress, Acceptance, Allowing, and Letting Be (explained as text in manuals provided and using stories in session)
Poem
3-Minute Breathing Space and Action and Inquiry
Home Practice (provided as audio via WhatsApp – 10-min Sounds and thoughts mediation)
Reflection and support (voluntary group discussions)
Week 4
Check-in on home practice (poll and reported challenges via Zoom chat box)
3-Minute Breathing Space

Review of Home Practice
Body Scan and Inquiry
Input on Empathy, Compassion, and how can I best take care of Myself (explained as text in manuals provided and using stories in session)
Poem
Loving Kindness Meditation
Home Practice (provided as audios via WhatsApp – 10-min loving-kindness meditation)
Reflection and support (voluntary group discussions)
Closure and information on feedback session in a month

During the pandemic human to human physical distancing was observed, Zoom chat rooms and WhatsApp groups replaced traditional in-person support groups. Polls via Zoom were used to ascertain participants' preferences regarding what was conducive to the effective implementation of the study in terms of time, setting, home practice, and context of implementation for the future. Data were triangulated and given depth by the poll having expansion questions and by providing open-ended questions as highlighted in the semi-structured interview schedule set in Table 2.

Table 2: Semi-structured interview schedule

Questions	Platform
Did you find the MBI culturally appropriate and relevant to the South African context?	WhatsApp
Did you prefer this four-week programme for those who have done the standard 8-week MBSR programme? Please elaborate	Poll (yes/no) Zoom and Zoom chat room
What did you think of the online platform compared to face-to-face sessions?	Zoom Chat room
Would you recommend that this MBI be implemented in the undergraduate years of study? Please elaborate	Poll (Yes/No) Zoom chat room and WhatsApp
Please provide any feedback that would improve this intervention.	Zoom (option to write in the chat box, speak on Zoom or send a message via WhatsApp directly to researchers)

Zoom sessions were recorded, and transcriptions of audio and chat boxes were saved. WhatsApp group discussions and individual WhatsApp messages for those that preferred chatting privately were copied and pasted in word documents and uploaded to NVivo. NVivo is a qualitative data analysis software that helps find keywords and identify and collate themes. Trustworthiness was enhanced by using triangulation of data. This was established with polls, asking for the elaboration of answers via Zoom, open-ended questions, and group chats on WhatsApp. In terms of dependability, detailed descriptions in the methodology section of how the study was conducted, ensured that the research can be replicated. To enhance this study's validity, direct quotations were used to explain the results, and both authors looked through the data objectively. Rigour was ensured by encouraging critical feedback, keeping the polls anonymous, and both statements that agreed and disagreed with aspects of the MBI were included.

A thematic analysis was conducted following a six-phase process (Braun and Clarke, 2019) which entailed the following steps: the transcripts from the online focus group discussions, i.e. Zoom audio recordings (transcripts created by Zoom), Zoom chatrooms and WhatsApp chats, were collated, and read over to familiarise the authors with the emerging themes. The data were then uploaded onto NVivo 12. Initial themes were generated, and this process was followed by two authors (IO and V.S.S) independently. The common themes were discussed, collated, and finally verified with an independent, experienced external qualitative researcher (S.H) to ensure the two authors did not influence the interpretation of the data. Once consensus had been reached the write-up was initiated.

Results

A month after the intervention (9 September 2020), a Zoom meeting was set up to share the findings and allow participants to share their feedback on the process and outcomes of the MBI. Questions were structured around factors that facilitated and hindered effective implementation, which could improve the implementation of future

MBIs. Key themes were organised around the 5Ws1H framework to facilitate the translation of the findings (Tattersall, 2015) for online MBIs implementation.

Where? Preference for Online MBIs

The participants were asked their overall experience with using the online platform (Zoom) instead of a face-face option. Most participants responded that the online platform was easier to access and safer during the pandemic. They felt very comfortable engaging from their homes, especially with the cameras off and on mute as explained by one of the participants, a 34-year-old female medical doctor employed at an urban, public hospital.

> *"I wonder how many of us would have actually attended if we had to do so in person? I found the fact that my camera and microphone could be turned off enabled me to engage more fully with the process."*

A 28-year-old female psychologist working in an urban public hospital spoke of the challenges of practising from home initially but captured the essence of mindfulness by staying present and overcoming distractions. She said:

> *"My place has a lot of distractions, so having it online helped to teach me how to prioritize and switch off from other things to focus on myself."*

Though the online platform worked well for most, it was not without some challenge. Some could not overcome these *distractions* as quickly which will be discussed in more depth under the section, 'why and how'. This guided the next theme of 'when' it would be most opportune to offer the intervention.

When? Shorter courses during working hours are more accessible

A standard 8-week programme was summarised to four weeks and adopted for online use, which as mentioned in the previous theme was well received. The timing of just one hour per week for formal practice and fifteen minutes of informal practises at home was appreciated by the time-driven HCPs. This was confirmed using polls and asking for elaborations on their choice of answer. The poll asked participants who had done the standard 8-week MBSR programme to check how the briefer MBI faired. 96% reported that they would recommend this brief version to others.

A *56-year-old female radiographer working in an urban public hospital* who preferred the brief time frame due to the convenience reflected on how an hour was enjoyable as mentioned in the next quote:

> *"The course was only four weeks, but I think as healthcare workers fighting for time, it was not overwhelming. Well-constructed sessions did not feel like it was an hour. No time watching."*

Though HCPs making time for attendance to such interventions would be ideal it is difficult for HCPs to commit since they have such erratic and demanding work schedules. HCPs need to take care of their mental health to be proficient at the work they do. It makes sense then that such interventions be incorporated within working hours and offered by management to make for easy access and sustainability as a 63-year-old female psychologist working in an urban public hospital mentions:

> "*It requires managers at the top to insist that health care workers attend sessions like mindfulness and give them the time during working hours*."

Other than in public health departments, the idea was to offer it to all health professionals. This was checked with our participants. 96% of our participants agreed in a poll that our intervention should be implemented in the undergraduate programmes of all health professions. A 41-year-old anaesthesiologist in private practice in an urban area in fact suggested that it be offered every year. She said:

> *"Will definitely recommend for it to be implemented in the undergraduate programme and every year after that so by time they graduate it is part of their practice."*

This brings up the theme of 'who' would implement the MBIs to HCPs in their choice of space.

Who? Outside facilitators can skill inhouse participants

The advantage of online sessions is that there is no need for proximate teachers, skilled staff can be easily accessed, and it removes the stigma of seeking help. This implies that the departments can get the MBI outsourced but once the basic skills are taught then the HCPs in attendance can help their colleagues and patients with simple mindfulness tasks. This highlights the concept of task shifting, which was brought up in the extract below. A participant proposed task shifting to equip HCPs with simple methods to achieve a sense of calm and train others to do the same as part of the skills required for psychological first aid to reduce trauma and maintain resilience. A 34-year-old psychiatry registrar working in urban public facilities illustrated this as follows:

> *"The eThekwini District Mental Health Team has been involved in training of various facilities with regard to Psychological First Aid, and elements of Mindfulness and self-care. I think there may be to a degree merit in adopting this task-shifting approach for simpler interventions that one can do so that it becomes part and parcel of self-care just like going to the gym/exercising is."*

The above comment alludes to the importance of the MBI and its potential merit with HCPs. However, the study focusses on the relevance and appropriateness of the content with HCPs discussed in the next theme:

What? MBI content needs to be tailored to recipients

The intervention involved a series of meditations which included the use of breathing, body awareness, mindful movement, and self-compassion (see Table 1). The participants had views about whether the intervention components applied to the diverse population of HCPs in South Africa. In the quote below, a 28-year-old female psychologist employed in a semi-rural public hospital suggested that the meditational component of the intervention was sensitive to the various cultural differences as it provided a neutral medium for all participants. She said:

> *"Sure, Mindfulness is adopting Asian and Western roots, but I believe a spiritual and emotional balance is universal. Also, Mindfulness is breathing and calming down, which I believe is universal. Distorted thoughts, fear, anxiety, and all other mental illness that it works on affects everyone in every culture and context".*

The above comment suggests that although HCPs may come from diverse cultures, the critical elements of the current intervention is to promote inclusion and accessibility to all. There was, however, some feedback in response to how the MBI could be improved relating to content. This is described below by a 23-year-old female physiotherapist completing her community service in an urban public hospital. She reflected:

> *"I do enjoy the mindfulness intervention session, but I do feel like it can broaden the focus, especially since it's a study for healthcare professionals specifically …. I think there are common experiences/situations the intervention can branch into, which will make it more directly relatable to health professionals. Not only regarding culture but the hierarchy in the workplace, burnout, competence, etc. ... and the situations we face*."

Though the MBI was found to be universal in its content, this came with a cost; the information shared, stories used, and examples discussed were general about the process of stress and how to overcome it. There was not much deliberation on the everyday challenges of working as an HCP in South Africa during COVID and general times. The feedback above by the community service physiotherapist brought up many considerations that would facilitate the implementation of future MBIs, as will be discussed further in the next theme of 'why and how'.

Why and How? 'Psychological PPEs' needs to be culturally appropriate in diverse context

COVID-19 has proven itself to be a source of additional trauma and distress (Engelbrecht *et al.,* 2021), with a need to prioritise mental health as much as we do physical health. A comment that brings attention to this is quoted by a 40-year-old medical registrar specialising in anaesthesiology. She said:

> *"During this COVID time, we've been talking a lot about 'psychological PPE' in our unit ... not just the physical gloves/masks/visors, etc., but the skills/tools to protect ourselves psychologically/emotionally. Mindfulness is exactly that!"*

The example of *psychological PPE* is so relevant, for although HCPs were offered protection from the physical dangers of COVID-19, not enough emphasis was being placed at the time on how COVID-19 was affecting them

emotionally and psychologically. In previous papers based on this study (Osman *et al*., 2021; Osman and Singaram, 2022), most HCPs reported feeling overwhelmed since the advent of the pandemic, for a lot more was demanded of them in very uncertain circumstances.

As much as the MBI was effective as *psychological PPE* and well-accepted by the HCPs, some pertinent points were brought up in how the MBI could be improved to the South African healthcare context as illustrated in the next comment. A 30-year-old female psychologist from a semi-rural public hospital commented on the socio-political context in that certain people may not have a conducive environment to practice. HCPs may struggle to utilise online mindfulness as they may not be living by themselves. Instead, they may be sharing their living spaces with extended family members. She further alluded to the fact that this was common in the rural areas, as mentioned below:

> *"However, the main difficulty or challenge I had with some of the mindfulness activities was that they seemed to be very individualistic … The mindfulness activities could only be implemented when I became this "elite black professional" who has her own space she is renting and does not have to be in a squashed place in semi-rural areas with her siblings … So to summarize what I am trying to convey is that to some extent I feel that the mindfulness course can be applicable to different cultures. However, I am just wondering if it can be applicable to all contexts in SA."*

In the above critique, the participant contributes to our understanding of how living arrangements, in this case, may affect the accessibility and usefulness of online interventions particularly in this study. She, however, also highlighted that such courses may become applicable to different cultures, but the interventions need to be sensitive to context. This will be further explored in the discussion section.

Discussion

Working as an HCP is difficult at the best of times but during COVID-19, HCPs were pushed in the frontline of a global health crisis. As the pandemic ensued it became apparent that HCPs were fighting a physical health crisis but also a mental health one. HCPs mental well-being came into focus, and it became apparent that something needed to be done at an organisational level since it affected patient care and productivity (Micklitz *et al.*, 2021). The aim of the study was to explore the experiences of HCPs in terms of factors that hinder or facilitate a brief online MBI. The researchers focused on what worked and what didn't in terms of the application and what could be learnt and thus tailored for more effective future implementation.

The themes were explained in the form of answers to the questions of where, when, who, what, why and how. The first theme explored the observations of participants in terms of the online platform, where they expressed that they were able to fully engage in the process. Moore *et al.* (2020) comment that the online experience offered access across vast physical spaces that would not have been accessible before and was convenient due to reduced cost and time to commute. The easy accessibility and convenience would be relevant in rural settings of South Africa, which is known to have limited access to healthcare resources. So, the HCPs working in remote regions could save time and the expense of commuting to bigger cities. These factors could explain why a study comparing outcome measures of virtual delivery of an MBI to traditional in-person delivery (Klatt *et al.*, 2021) yielded better results in stress reduction and resiliency building. Furthermore, participants could keep the video off at times and thus enjoy their meditations without concern about anyone watching them, maintaining anonymity and confidentiality, and reducing the stigma of help-seeking (Knaak *et al*., 2017). The lessons learned from this theme could guide future MBIs in that the use of online platforms proved a viable option and a safe enough containment space to make participants feel safe, concentrate and experience mindfulness.

However, online use from home did come with some challenges, especially in rural areas as reported by one of the participants who said it was easier to practice when she was "*the elite black professional who has her own space*". These challenges included the space required for mindful movement, quiet time, and a reliable internet connection to participate in this intervention. In contrast, a similar-age participant of the same race, age category, gender, and vocation but from an urban area, spoke of experiencing some distractors at home but overcoming it and establishing a practice of mindfulness from her home. The socio-economic disparities in South Africa are stark, with much of our population living in rural areas with limited access to resources, including space and even data, which is considered a privilege in terms of cost and reliable internet connection (Pete and Soko, 2020). The lesson

learned from this team was that even though online is a viable option, participation from participants' places of residence may not always be conducive. Thus, an option could be to offer mindfulness in the workspace which aligns with the findings of the next theme of time.

In terms of the timing of intervention, most HCPs preferred the brief four-hour intervention once a week. These findings correlate with previous research, which found that the time commitment of standard MBIs can be a barrier to successful implementation, especially in healthcare settings (Demarzo *et al.,* 2017; Ameli *et al.*, 2020). Furthermore, it was suggested by participants that it would be more conducive to have the MBI incorporated in the workplace during work/study hours. The advantage would be to make the most of the convenience of the online platform but reduce the challenges of home practice and socio-economic disparities. A study assessing the prevalence of burnout among HCPs in South Africa (Sirsawy *et al*. 2016) suggests an action plan be implemented in partnership with the Departments of Health and Higher Education to prevent burnout since they struggle under the burden of stress with minimal debriefing and self-care methods in place (Whitesman *et al.*, 2018). The findings of this study and previous research support the successful implementation of MBIs, MBIs could be a critical component of *"psychological PPE"* highlighted by a participant in this study. Due to the simplicity and efficacy of the practice, it seems plausible for MBIs to *"become part and parcel of self-care just like going to the gym/exercising is".* This extract shows much hope in removing the stigma of focusing on mental health and well-being and making it a natural part of an HCPs life.

A very critical question that was assumed would be difficult to answer was, Who? However, with the advantage of online interventions and the option of using pre-recorded versions, would remove the challenge of finding a proximate teacher. A suggestion made by the participants themselves was to engage staff at the hospital to help by looking at task shifting. MBI has some emerging research to validate its use in task shifting in crises (Zhu *et al.*, 2021; Hechanova *et al*., 2015) which points to the merit of this paper to guide future implementations. The lesson from this study is to keep it simple and use what we already have. By using an online version that is easily available, training can be provided to those interested in Mindfulness. However, the mindfulness practitioners themselves can become advocates and teachers for MBIs by sharing it with others and teaching them basic stress-reduction techniques that worked for them.

The findings of this paper as validated by other research (Proulx *et al.,* 2018), point towards the universal applicability and efficacy of the meditations used. An observation made by one of the participants was that more than race or culture, socio-economic differences, invalidating systems, and burnout were of more concern. This was confirmed in a previous paper in which HCPs reported that their basic needs were overlooked; they were expected to work without ample PPEs, creating much anxiety and conflict regarding their safety and their kin leading to heightened stress and burnout levels (Osman *et al.*, 2021). Part of burnout, other than reduced empathy and emotional exhaustion, is the feeling of reduced competence, which we note the participant referring to in the extract. COVID-19 took a toll on all participants' mental health; however, it was not a priority considering the overwhelming focus on physical health and the high death rate (Dawood *et al*., 2022). Thus, the lesson learned from the study is that the content of the MBI should be tailored to the specific needs of the context and time in which it is offered These needs of the time in this study was identified as: the workplace culture and circumstances HCPs in South Africa work in, elements of burnout like compassionate fatigue, secondary traumatisation, feelings of incompetence, and how to maintain a work/life balance. A way to encourage feelings of validation and normalise the feelings of stress and burnout, encouraging acceptance of our shared human suffering would be to tailor the use of parables to these. The current narratives used in the MBI training were based on generic stressful situations. Satisfaction with such courses may be ameliorated by using relevant stories to work through.

Further iterations of MBIs, must take into account the critique of the psychologist working in a semi-rural area who shared that she thought the approach could be viewed as 'individualistic', other than space she may have also been alluding to the fact that the modality was developed in communities, characteristic of individualist orientation to the world, while African culture is collective in their view of the world, e.g. Ubuntu, 'I am because we are'. The lesson learned from this, is to incorporate ideas and terms relevant to the culture being taught and check their comfort and understanding of concepts and if they resonate. For example, mindfulness assumes that psychopathology is predominantly caused by how people relate to their thoughts, whilst African psychology views suffering as a spiritual background of the individual manifesting the illness. (Nwoye, 2015). Hence the discussions in the MBIs must thus be able to take both views into account. The mediations can be viewed as universal but the

rationale and processes behind them could be more context specific. Furthermore, diverse mindfulness facilitators from diverse backgrounds could address cultural nuances better. This is especially relevant in South Africa as previous mental health interventions were wrongfully used to oppress the masses (Myers and Speight, 2010) and where western ideologies were forced upon people of African descent (Myers and Speight, 2010).

This study focused on strengthening the internal resources of HCPs instead of simply reacting to psychopathology, as is the history of the psychological discipline It was a novel study at the time of a pandemic, exploring the challenges and benefits of a convenient, easily accessible stress reduction intervention using an online platform in a multidisciplinary, multicultural society during a highly stressful time. Though there are many benefits of online MBIs, specific challenges like the cost of data, connectivity issues, and different living arrangements like the collective setting in rural areas may create disparities for some populations. A more precise understanding of the context is recommended for implementing future online interventions. Hence, while this study advocates for this new method of stress reduction intervention, it may not be applicable to some communities due to the socio-political context in which HCPs practice medicine. Attempts were made in this study to include a mindfulness facilitator of African origin to assist in the implementation but due to the rapid changes demanded due to COVID protocol, it was not possible at the time. However, this needs to be considered for future MBIs to enhance efficacy in the African context. This is especially relevant in South Africa considering how some maybe suspicious of mental health interventions since psychology was with an agenda to oppress the masses (Myers and Speight, 2010). Furthermore, western ideologies are forced upon people of African descent and they may not relate to foreign terms or concepts (Myers and Speight, 2010).

Although a national call for participation was made for this study, there is a higher percentage of HCPs from one of the provinces in SA, i.e. KZN. This may have been influenced by the authors who are affiliated to the Medical School in KZN. Since snowball sampling was adopted for this study, they may have been more familiar to the KZN invitees. Future studies should aim for a wider geographical representation. In addition, many attempts to involve HCPs from different sectors were made but to no avail, for e.g. nurses who are a critical part of our healthcare departments did not participate. This may be due to the additional overburdened stressors that most nurses experienced as frontline workers during the global pandemic.

Conclusion

The goal of this paper was to explore health professionals' perceptions of a brief online mindfulness-based intervention and elicit guidelines for future implementation in similar settings. The findings reveal to a large extend that, an online platform worked effectively by creating a safe-containing environment where HCPs could possibly overcome the barrier to socially conforming to the idea that HCPs did not need help themselves. The HCPs understood and engaged in the meditations fully, especially with the camera and microphone off, that aided confidentiality. Nonetheless, as authors we acknowledge that using this approach via online could be met with some challenges as evidenced in some concerns that were raised by the participants. Some concern over living arrangements and inadequate infrastructure (poor internet connectivity), especially in rural areas that are predominantly under-resourced. Thus, a brief online mindfulness-based intervention could work better if departments offer and support it during working hours. An advantage would be that HCPs would feel their mental health needs are cared for and considered by the organization since many HCPs spoke of feeling overlooked by the system, especially during COVID-19 (Osman *et al*., 2021; Osman and Singaram, 2022). Future research is recommended to quantify the benefits of using MBIs as a way of task shifting for psychological first aid, since no studies were available in the South African context or during COVID-19. Quantitative research with a larger sample size would be beneficial once departments implement the MBIs to prove the programme's efficacy. To summarise, the findings in this study show much potential for a brief online MBI to reduce stress and enhance resiliency in HCPs. This is a potentially suitable intervention with significant contributions to online treatment and mindfulness. We hope these lessons observed aid the effective implementation of future MBIs with HCPs.

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