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Letter to the Editor

Designing a psychological preparedness toolkit for healthcare workers in the wake of COVID-19: A Singapore perspective

1. Introduction

The COVID-19 pandemic has proven to be a tensile stress test for Singapore, as the collective consciousness of the Severe Acute Respiratory Syndrome (SARS) still lingers. On the psychological front, healthcare worker (HCW) survivors still recall the emotional stress owing to the fear of an unknown disease, public stigma, and the grim realities of mortality (Kwek et al., 2004; Maunder et al., 2003). Notably, caring for fellow HCWs as patients was a unique yet challenging emotional experience (Maunder et al., 2003). These challenges underscore the need to provide psychological support to frontline HCWs. However, this provision is not without its challenges due to the lack of shared experiences from lay mental health providers, and the competing demands between patient care and staff support (Duan and Zhu, 2020).

Learning from the experience of SARS, COVID-19 pandemic preparedness now extends beyond medical and systemic aspects of care. It recognizes the psychological support of HCWs as an essential strategy in ensuring a robust workforce with a sustained ability to provide safe care (Kang et al., 2020). Therefore, psychiatrists play a crucial role in educating and advocacy during a pandemic, considering the multifarious psychological implications of COVID-19 (Tandon, 2020).

A Psychological Preparedness Toolkit for HCWs was designed for Singapore’s National Centre for Infectious Diseases to prepare HCWs who were about to be deployed to crucial COVID-19 care areas. Its objective was to provide realistic depictions of frontline work, which would be unfamiliar to HCWs from different care settings and levels of experience. This toolkit preceded hospital-wide psychological support measures, such as the nomination of welfare officers and psychological first aid training. The toolkit content comprised four main categories: (i) expected emotional responses, (ii) changes in the work environment, (iii) support measures, and (iv) anticipated effects on mental health.

2. A toolkit in the infodemic era: addressing anxiety arising from hearsay

The paradigm shift defining COVID-19 apart from the era of SARS lies in the ease and speed in how information is obtained, consumed, and disseminated with technology and social media. As such, the toolkit avoided replication of existing content such as stress management strategies that were readily available from reputable sources.

With the rapid sharing of information across various digital media, those receiving information from various sources may doubt about the credibility of hearsay (Vosoughi et al., 2018). The toolkit provided a reliable source of advice and practical coping strategies from the pioneer cohort of HCWs who served in COVID-19 care areas. An illustrative and informative example is the commonly-encountered discomfort of Personal Protective Equipment (PPE) and HCWs learning to reduce mask abrasions with emollients.

3. Challenges unique to healthcare across borders

The ethno-geographic diversity of Singapore’s healthcare workforce and its implications were illustrated by the Malaysian border lockdown enforced within 48 h of its announcement (The Star Online Internet Malaysia and The Star, 2020). Given that HCWs form a significant part of the 300,000 people crossing the Malaysia-Singapore border daily (The Straits Times Internet Singapore and The Straits Times, 2016), those who chose to continue working in Singapore were stranded, and accommodation and alternative work arrangements became issues that required immediate attention. The toolkit acknowledged these challenges that occurred outside of healthcare and provided tips on using social media and telecommunications to foster connectivity with the workers’ families.

4. Encouraging self-monitoring and self-help

The toolkit included the Burnout Measure (short version) (Malach-Pines, 2005), a widely used self-reported appraisal of burnout because of its intuitive questions and ease of use, to encourage periodic mental health check-ins. The hospital’s employee assistance program helplines were appended to nudge distressed persons to seek help.

5. Supervisor toolkits: organizational health principles in outbreak management

Inclusion of principles of organization theory in the context of COVID-19 management aided supervisors in the evaluation of employee behaviors, and in identifying risk factors for burnout and disengagement. Specific sources of stress, namely biosecurity measures, loss of autonomy, and perceived lack of control, guided the identification of pain points that may affect employee well-being.

6. What is the moral of their stories? Narration as an impactful way to convey information

Storytelling is recognized as a powerful educational strategy in health professions education and is often employed as a means of information sharing, engagement, and promotion of citizen participation (Haigh and Hardy, 2011). Personally-narrated stories of frontline HCWs were weaved into the toolkit to highlight essential learning points. The creation of relatable and easily identifiable content overcomes issues with cognitive overload and information fatigue [Table 1].

7. Conclusion

The psychological preparedness toolkit is an emergency educational tool borne out of exigent circumstances. Given the needs of the day, the...
tablekit was designed as an informative just-in-time strategy, focusing on needs-related training, easy accessibility, and highly-identifiable content. Timely and effective psychological preparedness interventions are necessary to ensure the sustainability of a resilient workforce that should not only be able to mount a sprint response, but also possess the tenacity to run a long-drawn marathon of a global pandemic.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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**References**

Duan, L., Zhu, G., 2020. Psychological interventions for people affected by the COVID-19 epidemic. Lancet Psychiatry 7 (April (4)), 300–302.

Haigh, C., Hardy, P., 2011. Tell me a story—a conceptual exploration of storytelling in healthcare education. Nurse Educ. Today 31 (May (4)), 408–411.

Kang, L., Li, Y., Hu, S., et al., 2020. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. Lancet Psychiatry 7 (March (3)), e14.

Kwek, S.K., Low, B.L., Ong, T.C., Chan, K.L., Chew, W.M., Tang, H.K., 2004. The psychological impact of SARS on health care providers. Crit. Care Shock 7 (2), 99–106.

Malach-Pines, A., 2005. The burnout measure, short version. Int. J. Stress Manag. 12 (February (1)), 78–88.

Maunder, R., Hunter, J., Vincent, L., et al., 2003. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. CMAJ 168 (May (10)), 1245–1251.

Tandon, R., 2020. The COVID-19 pandemic, personal reflections on editorial responsibility. Asian J. Psychiatr. 50, 102100.

The Star Online [Internet] Malaysia, The Star, 2020. Malaysia Announces Movement Control Order After Spike in Covid-19 Cases (updated); 2020 Mar 16 [cited 2020 Mar 27]. Available from: https://www.thestar.com.my/news/nation/2020/03/16/malaysia-announces-restricted-movement-measure-after-spike-in-covid-19-cases.

The Straits Times [Internet] Singapore, The Straits Times, 2016. Nearly 300,000 People Walk Between Malaysia–Singapore daily: Malaysian Immigration Dept. https://www.straitstimes.com/asia/se-asia/nearly-300000-people-walk-between-malaysia-singapore-daily-malaysian-immigration-dept.

Vosoughi, S., Roy, D., Aral, S., 2018. The spread of true and false news online. Science 359 (March (6380)), 1146–1151.

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**Table 1**

| Implicit message                                      | Quote                                                                 |
|------------------------------------------------------|----------------------------------------------------------------------|
| Acknowledging anxiety and affirming acclimatisation  | “People will start off feeling anxious because they are afraid of getting infected, and struggle working in a new environment. But I notice that by the 3rd shift, most people are settled in and become fairly comfortable.” |
| Accepting change and a dynamic environment            | “Because workflows are always changing, I fear making mistakes and worry what I do will be unsafe.” |
| Anticipating discomfort                               | “Be prepared to get really warm in the PPE! I wore the PPE for three hours and I was soaked in sweat right down to my undergarments. But everyone understands it’s for our own protection.” |
| Building trust in protective measures                 | “PPE is armour you can trust in. I have been in direct contact with five desaturating COVID-19 patients while wearing PPE. And although I fell sick, I tested COVID-19 negative three times. So wear that armour with pride.” |
| Addressing presenteeism and civic responsibility      | Nobody is indispensable and your team has your back. So if you are sick or running a fever, please do not come to work. I was on 14 days of hospitalisation leave because of an unrelenting fever which fortunately turned out to be strep [staphylococcus] throat. But the ward team continued in my absence – it was business as usual.” |
| Active ownership of emotional well-being              | “Little pockets of time you can find during full periods or when commuting to work, can be used to be with your thoughts. And if you can afford some time to free write, that might be even better. Be mindful of your thoughts and see what is frustrating you so that you can sit with those feelings then let them pass.” |
| Benevolent care and meaning-making in difficult circumstances | “People don’t always remember what you said or what you did, but how you made them feel. One of the desaturating COVID-19 patients was very anxious and kept moving whilst I was taking bloods. It was frustrating, but I tried my best to be professional. I saw her in clinic yesterday, and she remembered my voice. She said she was thankful for my gentle insistence on trying again… that I was patient although she had been emotional. So yes, that was humbling.” |
| Addressing the effects of stigma against HCWs         | My healthcare assistant was told by her landlord to pack up and leave on a Friday afternoon, after he found out that she worked in our hospital. I frantically tried to work in our hospital. I was on 14 days of hospitalisation leave because of an unrelenting fever which fortunately turned out to be strep [staphylococcus] throat. But everyone understands it’s for our own protection.” |