Lived experiences and coping responses toward mandatory quarantine among Malaysian healthcare workers during COVID-19 pandemic: A qualitative analysis

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Abstract

This paper describes the lived experiences and coping responses towards mandatory quarantine among Malaysian healthcare workers who were exposed to the risk of COVID-19 infection during the first phase of movement control order. To capture the rich and thick description of these experiences, interpretative phenomenological approach using in-depth interview was employed. Due to the *cordon sanitaire* imposed, all interviews were conducted online either through a video conferencing application or through an online survey platform. A total of 11 participants responded. The interview contents were transcribed and iteratively coded by the authors independently. Four broad themes emerged. First, most participants accepted well on the need for mandatory quarantine. They understood the importance of quarantine in containing and breaking the chain of infection. Second, the most distressful moment was the waiting period for the result of their first nasopharygeal swab. Third, boredom was a major triggering factor resulting in the germination and rumination of negative thoughts. Fourth, although conspicuously absent in published literature from Western countries, religious faith appeared to be one of the most important coping mechanisms for our Muslim and Christian participants. To combat boredom and to refrain from dwelling on negative thoughts, they devoted their time to prayers and reading religious scriptures.

Keywords: COVID-19; quarantine; healthcare workers; coping; religion

Introduction

First reported in the late December 2019 in a wet market in Wuhan (Wu et al., 2020; Wang et al., 2020), the coronavirus disease 2019 (COVID-19) has rapidly become a global health threat so much so that the World Health Organization (WHO) declared COVID-19 as an unprecedented pandemic on 11th March 2020 (WHO, 2020). Although lung infection is often regarded as the most

serious and fatal complication of this highly transmissible virus, it can present with a myriad of non-specific symptoms including dry cough, muscle pain, sore throat and even loss of smell and loss of taste (Stokes et al., 2020). Following this declaration, the Malaysian government imposed a national movement control order (MCO) or *"cordon sanitaire"* on 18th March 2020 based on section 14 of Prevention and Control of Infectious Disease Act 1988 (Act 342). *Cordon sanitaire*, is defined as a quarantined area with restricted movement of people in and out of a defined geographical area (Hartley & Perencevich, 2020). It is a necessary measure for many countries to "flatten the epidemiological curve" in order to minimize the risk of overwhelming the available health resources (Anderson et al., 2020).

Literature review

Quarantine is essentially a precautionary measure of separating people who had been potentially exposed to a contagious disease in order to reduce the risk of subsequent spread to another person (Brooks et al., 2020). In a review based on quarantine experiences during previous outbreaks in various countries, Brooks et al. (2020) found that the psychological impact of quarantine can be wide-ranging. Interestingly, it was found that healthcare workers generally felt greater stigmatization compared to the general public and exhibited more avoidance behaviors even after the quarantine period was over. They were substantially affected with anger, annoyance, fear, frustration, guilt, helplessness, isolation, loneliness, nervousness, sadness and worry (Brooks et al., 2020; Bahar Moni et al., 2021).

As an unprecedented health crisis, COVID-19 is a very "VUCA" situation. First described in a military context (Bennett et al., 2014), VUCA is an acronym where the word "V" stands for volatility (i.e., how rapid and dramatic the changes can be), "U" stands for uncertainty (i.e., the degree of unpredictability of the situation), "C" as complexity (i.e., the possibility of multiple viral mutations that may confound the situation) and "A" as ambiguity (i.e., the degree of transmissibility, virulence and evolutionary changes) of the situation. Therefore, as COVID-19 is an unprecedented VUCA situation, how people who have to be quarantined in isolation responded to this complex situation in an Asian setting is not known and may differ from the findings by Brooks et al. (2020). This paper is an attempt to capture the lived experiences of Malaysian healthcare workers who were quarantined during the first phase of MCO in March 2020.

Method

To capture the rich and thick description (including the emotions) of how healthcare providers responded and coped with their quarantine experiences, in-depth interview technique using a set of semi-structured, open-ended questions was employed in this qualitative study (refer Table 1 for the questions).

Participants

The participants of this study were the quarantined healthcare workers in Malaysia who had been in contact with confirmed COVID-19 patients. We included both staff who had completed their quarantine period and those who were still in quarantine at the time of the interview. As this study

was conducted during the time of MCO, all interviews were conducted online either through a video or audio call (using video conferencing application or an instant messenger application) or through the online survey platform, Google Forms. However, as the purpose of this interview was to capture the rich description of their experiences, we explained to the participants that we preferred video or audio interview rather than using Google Forms. Due to the heavy dependency on internet access, participants with no adequate internet access or who refused to consume their internet data for this purpose had to be excluded.

As qualitative research employing interpretative phenomenological approach, i.e., on how a given person (a healthcare staff), in a particular context (in this case, the unprecedented COVID-19 pandemic), makes sense of a given phenomenon (the quarantine experience), an initial sample size of 10-12 was targeted (Vasileiou et al., 2018).

Table 1. Open-ended Questions for In-Depth Interview.

Psychological impact of quarantine
The COVID-19 is a highly infectious disease, with the number of cases increasing very dramatically. How do you respond to the fact that you were exposed to risk of infection after contacting COVID-19 patient and have to undergo quarantine?
What were your thoughts or feelings about quarantine at the start of your own quarantine experience?
There are some uncertainties about COVID-19 from the perspectives of economy, education, health, lack of vaccine, etc. What was your biggest fear after knowing that you have to be quarantined?
Could you describe the process and condition in which you were quarantined?
Does/did being quarantined has affected your mental health so far?
There are still a lot of things we do not know about this virus. How does the lack of clear knowledge affect you emotionally? Do/did you experience any emotional distress? Can you tell me more about it?
How do you deal with the stress or any other mental issues that you experienced during the quarantine? What are your coping mechanisms?
Did you feel that you need help in terms of mental health during the quarantine period?
Social impact of quarantine
How did your family members or friends treat you after they knew that you had been exposed to COVID-19 and had to be put under quarantine?
What is your opinion of returning to work after you have completed quarantine? Do you think your colleagues and bosses will treat you differently?

Materials

A set of open-ended questions was first developed by the researchers using modified online Delphi method. To achieve our consensus, the authors iteratively discussed every item of this questionnaire via the instant messenger application WhatsApp and through emails. The questions consisted of 4 sections: psychological impact, social impact, factors contributing to psychosocial impacts of COVID-19 among quarantined HCWs and the psychosocial differences between pre-post-quarantined experiences.

Procedures

Participants were first purposively recruited by first contacting the acquaintances of the researchers who fulfilled the criteria of being a quarantined healthcare staff who had been in close contact with a positive COVID-19 patient. Additional participants would be recruited from the contacts of the initial participants, if deemed necessary using the snowball sampling technique. No other inclusion criteria such as gender, ethnicity, age group nor marital status was taken into consideration for

participant recruitment.

Prior to the interview, a clear explanation of the details of the study was given to the participants. In particular, the participants were informed that the video or audio of the interview would be recorded and transcribed solely for the purpose of this study. Verbal informed consent would then be taken, and consent was either audio-recorded (for participants who were interviewed via video conferencing applications or an instant messenger application) or recorded by ticking on the boxes in the Google Forms application (for participants who participated using the online survey platform).

The participants would also be assured that all information would be kept strictly confidential and that they could withdraw themselves from the study at any time during the interview. The video and audio recordings were de-identified, and there would not be any inclusion of their personal identification information such as names, national identity card number or passport number, photos, etc.

The contents of the interview and online survey forms were then transcribed by the researchers and sent to the participants for member-checking. Initial open coding was conducted manually through iterative readings and labeling of keywords and phrases from these transcripts. Specifically, we attempted to identify the fears, concerns, worries, experiences, thoughts as well as the coping strategies used by our participants and transcribed them verbatim as open codes. After the initial open coding, a second axial coding was performed by re-analyzing these open codes to look for similarities, differences and relationships and to group them as themes and how these themes can then be fitted into broad categories of themes.

Ethics approval was obtained from the institutional research and ethics board of Universiti Malaysia Sarawak (UNIMAS) (reference number: UNIMAS/NC-21.02/03-02 Jld.4 (76)). All participations were volitional, and no monetary compensation was involved in the recruitment of the participants.

Results and discussion

Results

A total of 11 participants participated in this study, i.e., 4 participants participated in online interview using Zoom video application and another 7 participants participated in the online survey form using Google Form (in June 2020). Out of the 11 participants, 10 (91%) were quarantined because of close contact with infected persons and one participant was quarantined because she herself was infected.

Generally, there are four broad themes emerged from the coding process. First, most participants appeared to accept the mandatory quarantine well. They understood the importance of quarantine in containing and breaking the chain of infection. Second, the most stressful moment for most participants appeared to be time when they were waiting for the result of their first nasal swab. Third, boredom appeared to be the main triggering factor in germinating and ruminating negative thoughts in the minds of the participants. Fourth, religious practices appeared to be one of the most important coping strategies for our participants.

a. Theme 1: The need for mandatory quarantine was well accepted

First, most participants appeared to accept the mandatory quarantine well. They understood the importance of quarantine in containing and breaking the chain of infection. This is evidenced by some of the quotations by our participants:

"Quarantine is good, it is a very appropriate measure. ...because, once we have come in contact with a positive COVID-19 patient, we need to be isolated, so that we don't come in contact with other people especially people that are close to us. Besides that, quarantine also gives us a time to relax our minds as we can be feeling stressed out due to our experience, etc. So..., [it is] better it is for us to rest for a while ...." (Participant IVP2)

However, the one participant who was infected with COVID-19 did not take the quarantine experience as positive as the rest of the participants. She said:

"On the 1st of April 2020, while doing my afternoon shift in the ward, I was asked to take a nasal swab and was then straight away asked to be quarantined in the quarantine center. I did not even have the time to go home and get some personal belongings. Three days later, my result turned out to be positive. .... I was then transferred to be quarantined in another ward... I was extremely traumatized by this experience. So sad... all sorts of negative emotions.... And for your information, I am still under psychiatric follow-up"

b. Theme 2: Waiting for the first nasal swab result was the most stressful moment

When asked, what was the most stressful moment during the quarantine period, many participants responded by saying that is during the waiting period between the first sampling of the nasal swab and the announcement of the real-time reverse transcription polymerase chain reaction test (rT-PCR):

...the most worrying and anxious time was during the waiting time for the rT-PCR swab result.... Waiting for first swab was really anxious. It took about 3 – 4 days. It was really, just so, so worrying at that time. Really intense kind of worry. Until I had no appetite to eat, it [the negative thought] just kept playing in my mind whether I would be positive or not. Really disturbing me mentally. It's not so much about me, but about people around me [might get infected by the virus transmitted by me]. *So much mixed feelings – anxiety, worry, boredom."*

"[I was] *...very anxious to know whether my swab results would turn out to be positive or not" (Participant GP1)*

"For me, [the most stressful moment] *is the possibility that I might get a positive result for the swab and thinking of the risk that my family might get infected.* [But now] ...since *I knew that I am tested negative on the first swab, so probably I would be getting a negative repeat swab." (Participant IVP1)*

c. Theme 3: Boredom as a main triggering factor for negative thoughts

Interestingly, boredom appeared to be the main triggering factor that caused our participants to germinate and ruminate negative thoughts in their minds. This is evidenced by the following verbatim quotations:

"…. Time just seems to pass so slow when you are being quarantined alone in the room. That's why I just can't wait to go back to work when I am fit to work." (Participant IVP3)

"I was just too bored as I only had my cell phone as my source of entertainment…" (Participant GP1)

"No, no internet connection. So, it was quite boring though. I only have my phone with me. Confined in the room. So, by the 4th or 5th day, I got mixed feelings. The feelings of worrying about family at home. And the feeling of boredom. And my movement was so restricted. Only the medical staff in charge would come in to check my temperature and daily screening. And no one for me to talk to." (Participant IVP4)

d. Theme 4: Reading scriptures and prayers was an important coping strategies

Finally, religious practices such as reading and reciting Holy Scriptures and prayers appeared to be one of the most important coping strategies that our participants used, particularly to keep themselves occupied and to combat the feeling of boredom.

"I need to occupy myself with other activities so that I do not dwell on the negative thoughts. And also, I did some physical exercises." (Participant IVP3)

"Prayer and meditation. I need to make myself busy…." (Participant GP4)

"I take it positively on what has been done by the authority by isolating me from my family, friends and colleagues... [It is] is a public health safety measure and is also good for me to rest my mind. So, in that sense, I don't see quarantine as something that should stress me more. On the other hand, I would rather taking this positively and at the same time, this allows me more time to devote myself to prayers, meditation and to read the Holy Scripture in the Bible. And with the confidence gained from reading the Scripture, I am more assured and believe that I am protected by God Almighty. So, this is the way for me to face this challenge. (Participant IVP2)

"Not really… [when asked whether he experienced any difficulty in sleeping while in quarantine]. *Perhaps, maybe only the first 3 – 4 days, because I was thinking too much and too much worry, a bit of decreased in appetite. Other than that, I was well. In fact, that quarantine time, gave me lots of more time to devote myself to God. More time for prayer. Of course, I still have the fears. It is not easy. Not easy to go through the 14 days quarantine. I learned how to handle my emotions during that 14 days. Through my religious practices, through prayers, reading the Holy Quran." (Participant IVP4)*

Discussion

A number of studies have demonstrated that being quarantined can have significant psychological effects such as acute stress reaction and depression on an individual (Bai et al., 2004; Sprang et al., 2013; Taylor et al., 2008; Wu et al., 2009; Jeong et al., 2018; Liu et al., 2012). Most of our participants, however, did not seem to suffer from significant psychological impact except for one participant who was diagnosed with COVID-19. Rather, most of our participants were acceptant of being quarantined as they understood the importance of quarantine. The participant who was infected with COVID-19, however, was badly affected by the quarantine experience. This suggests that the infection status of a quarantined participant also determines how acceptance the person would be to being quarantined.

Another emerging theme from our study is boredom. Boredom appears to be an important triggering factor that results in the rumination of negative thoughts amongst our participants. Similarly, in a rapid review of literature by Brooks et al. (2020), boredom was also found to be one of the distressing factors, particularly when it is exacerbated by the lack of a good internet connection or lack of social networking. Boredom has been shown to result in a lot of negative emotions such frustration (van Hooft et al., 2018), apathy and anhedonia (Goldberg et al., 2011) and other forms of psychological distress (Melamed et al., 1995). To tackle the issue of boredom, a working mobile phone with charger and good wireless or internet connection is very essential as having a good internet connection would allow them to communicate directly with their loved ones and to reduce the feelings of isolation, boredom, stress and panic (Jeong et al., 2016; Manuell et al., 2011).

Indeed, in a statement issued by the WHO, the steps that one can take in order to mitigate the effects of "being isolated" including the need (1) to stay connected with one's social and family networks social media, (2) to maintain daily routines as much as possible including regular exercises and practice habits that one enjoys doing for relaxation and (3) to seek practical, credible information at specific times of the day (WHO, 2020b). Indeed, having a good connection with the outside world is absolutely essential to allow one to seek credible information. A plethora of unproven, non-credible or even downright fake news (colloquially known as "infodemic") (Zarocostas, 2020) since the COVID-19 pandemic, can paradoxically breed more fear and panic and sensationalism (Dubey et al., 2020). Perhaps this phenomenon is best encapsulated in an opinion piece by Larson (2018) published in Nature: "I predict that the next major outbreak — whether of a highly fatal strain of influenza or something else — will not be due to a lack of preventive technologies. Instead, emotional contagion, digitally enabled, could erode trust in vaccines so much as to render them moot. The deluge of conflicting information, misinformation and manipulated information on social media should be recognized as a global public-health threat."

We also found that religious practices (e.g., prayers, reading Scriptures, etc.) is one of the most important coping strategies that our Asian healthcare staff used to keep themselves occupied, to combat the feeling of boredom and to prevent negative thoughts from geminating in their minds. The importance of religion is conspicuously missing in the review by Brooks et al. (2020). In reality, when faced with a VUCA crisis, one may have exhausted all other resources (e.g., when one is confined to the four walls of a room with minimal resources during the quarantine period) and as a result, he or she may turn to religion to find solace as this has been shown to give them a sense of control, meaning as well as finding solace in religious strategies such as meditation, reading the Scriptures and prayers (Tepper et al., 2001). Indeed, a number of previous studies have

shown that religious involvement is generally associated with lower levels of depressive symptoms (Braam et al., 2004). One of the postulations on how religion helps in coping with mental distress is that religion enhances the positive feelings of consolation, hope, inner peace and relatedness to other people by offering an interpretation and a frame of reference for questions of life, suffering and death (Idler 1987). Religious practices have also been shown to enhance acceptance, improve endurance and resilience, as well as in coping with anxiety, fears, frustrations, angers and isolation (Moreira-Almeida et al., 2006).

An important limitation of our study is the fact that although we had intended to capture the lived experiences of our participants, this intention had been hampered by the preference of majority of our participants to use Google Forms rather than a video conferencing application or an instant messenger application. The use of a mere text-based qualitative data had detached the emotional component from our coding process and reduced the rigor to capture lived experiences. At the time when this data was collected (June 2020), video conferencing application was still a relatively new technology and many of our participants were not comfortable in using this application.

Conclusion

In conclusion, our study provided a glimpse into the inner thoughts and feelings of Malaysian healthcare workers who were quarantined because of exposure to COVID-19 patients. Although they were aware of the need for quarantine, many of them felt some intense, stressful emotions, particularly while waiting for the result of their first nasopharyngeal swab. When they were bored, with a lot of negative thoughts ruminating in their minds, many of them turned to religion to find solace. Therefore, the hospital and the Health Ministry should provide adequate support, particularly in ensuring a good internet connection as well as providing psychological and counselling support.

References

Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D. (2020). How will country based mitigation measures influence the course of the COVID-19 epidemic? *Lancet*, *395*(10228), 931-934.

Bahar Moni, A. S., Abdullah, S., Bin Abdullah, M. F. I. L., Kabir, M. S., Alif, S. M., Sultana, F., . . . Rahman, M. A. (2021). Psychological distress, fear and coping among Malaysians during the COVID-19 pandemic. *PLOS ONE*, *16*(9), e0257304.

Bai, Y., Lin, C. C., Lin, C. Y., Chen, J. Y., Chue, C. M., & Chou, P. (2004). Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr Serv*, *55*(9), 1055-1057.

Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. *Business Horizons*, *57*(3), 311-317.

Braam, A. W., Hein, E., Deeg, D. J. H., Twisk, J. W. R., Beekman, A. T. F., & van Tilburg, W. (2004). Religious Involvement and 6-Year Course of Depressive Symptoms in Older Dutch Citizens: Results from the Longitudinal Aging Study Amsterdam. *Journal of Aging and Health*, *16*(4), 467-489.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, *395*(10227), 912-920.

Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., . . . Lavie, C. J. (2020). Psychosocial impact of COVID-19. *Diabetes & metabolic syndrome*, *14*(5), 779-788.

Goldberg, Y. K., Eastwood, J. D., LaGuardia, J., & Danckert, J. (2011). Boredom: An Emotional Experience Distinct from Apathy, Anhedonia, or Depression. *Journal of Social and Clinical Psychology*, *30*(6), 647-666.

Hartley, D. M., & Perencevich, E. N. (2020). Public Health Interventions for COVID-19: Emerging Evidence and Implications for an Evolving Public Health Crisis. *JAMA,* 323(19), 1908-09.

Idler, E. L. (1987). Religious Involvement and the Health of the Elderly: Some Hypotheses and an Initial Test. *Social Forces*, *66*(1), 226-238.

Jeong, H., Yim, H. W., Song, Y.-J., Ki, M., Min, J.-A., Cho, J., & Chae, J.-H. (2016). Mental health status of people isolated due to Middle East Respiratory Syndrome. *Epidemiology and health*, 38, e2016048-e2016048.

Larson, H. J. (2018). The biggest pandemic risk? Viral misinformation. *Nature*, *562*(7727), 309.

Liu, X., Kakade, M., Fuller, C. J., Fan, B., Fang, Y., Kong, J., . . . Wu, P. (2012). Depression after exposure to stressful events: lessons learned from the severe acute respiratory syndrome epidemic. *Compr Psychiatry*, *53*(1), 15-23.

Manuell, M. E., & Cukor, J. (2011). Mother Nature versus human nature: public compliance with evacuation and quarantine. *Disasters*, *35*(2), 417-442.

Melamed, S., Ben-Avi, I., Luz, J., & Green, M. S. (1995). Objective and subjective work monotony: effects on job satisfaction, psychological distress, and absenteeism in blue-collar workers. *J Appl Psychol*, *80*(1), 29-42.

Moreira-Almeida, A., Lotufo Neto, F., & Koenig, H. G. (2006). Religiousness and mental health: a review. *Brazilian Journal of Psychiatry*, 28, 242-250.

Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster Med Public Health Prep*, *7*(1), 105-110.

Stokes, E. K., Zambrano, L. D., Anderson, K. N., Marder, E. P., Raz, K. M., El Burai Felix, S., ... Fullerton, K. E. (2020). Coronavirus Disease 2019 Case Surveillance - United States, January 22-May 30, 2020. *MMWR Morb Mortal Wkly Rep*, *69*(24), 759-765.

Taylor, M. R., Agho, K. E., Stevens, G. J., & Raphael, B. (2008). Factors influencing psychological distress during a disease epidemic: Data from Australia's first outbreak of equine influenza. *BMC Public Health*, *8*(1), 347.

Tepper, L., Rogers, S. A., Coleman, E. M., & Malony, H. N. (2001). The prevalence of religious coping among persons with persistent mental illness. *Psychiatr Serv*, *52*(5), 660-665.

Van Hooft, E. A. J., & Van Hooff, M. L. M. (2018). The State of Boredom: Frustrating or Depressing? *Motivation and Emotion*, 42, 931-946.

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and Justifying Sample Size Sufficiency in Interview-Based Studies: Systematic Analysis of Qualitative Health Research Over A 15-Year Period. *BMC Medical Research Methodology*, 18, 148.

Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A Novel Coronavirus Outbreak of Global Health Concern. *Lancet*, 395**,** 470-473.

World Health Organization (WHO). (2020). Mental health and psychosocial considerations during

the COVID-19 outbreak, 18 March 2020. Retrieved from: https://apps.who.int/iris/handle/10665/331490

World Health Organization (WHO). (2020). WHO Director-General's Opening Remarks at The Media Briefing On COVID-19 On 11 March 2020. Retrieved from: https://www.who.int/director-general/speeches/detail/Who-Director-General-S-Opening-Remarks-At-The-Media-Briefing-On-Covid-19---11-March-2020

World Health Organization (WHO). (2020). Coronavirus Disease (COVID-19) in Malaysia 2020. Retrieved from: https://www.who.int/malaysia/emergencies/covid-19-in-malaysia

Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., . . . Hoven, C. W. (2009). The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. *Can J Psychiatry*, *54*(5), 302-311.

Wu, Y.-C., Chen, C.-S., & Chan, Y.-J. (2020). The Outbreak of COVID-19: An Overview. *Journal of The Chinese Medical Association*, 83**,** 217-220.

Zarocostas, J. (2020). How to fight an infodemic. Lancet, 395, 676.