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THE IMPACT OF COVID-19 ON THE MENTAL WELLBEING OF HEALTHCARE STAFF

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ABSTRACT

Pandemics are challenging times for society but even more for healthcare professionals who are supporting severe and critically ill patients with the infection as well as others that are already accessing treatments for ongoing medical problems. Hence, the mounting pressure inevitably would impact the psychological wellbeing of staff, especially frontline professionals. Whilst, the dedication and commitment shown by our healthcare workers are beyond admirable, the need for their safety and right to access psychological support should be a priority for their respective employers and the government. Pandemics are trialling times for all, however, healthcare professionals' wellbeing should be a primary focus to ensure better support is available in the future.

KEYWORDS: COVID-19; healthcare staff; NHS; wellbeing; impact, mental health.

INTRODUCTION

In the midst of the COVID-19 global pandemic, clinicians are having to respond to a rapidly evolving situation based on limited evidence-based information.[1] Whilst COVID-19 started as a flu, this rapidly transformed into a pandemic that has engulfed the frontline healthcare workforce especially in recent weeks to face a tsunami of rapidly deteriorating patients infected with the virus. Frontline healthcare staff globally are under a significant level of risk to contract the virus themselves which undoubtedly risks their families' health and wellbeing. Therefore, this pandemic elicits a strong by-stander effect which isn't well discussed based on current literature by researchers. The elevated risks to bystanders are partly due to the healthcare workforce having limited availability of personal protective equipment (PPE) and not having any protective equipment provided to them specifically by healthcare authorities. This of course raises ethical and moral implications that are yet to be explored in full.

Various research groups working across the world have showcased a correlation between the healthcare professional's anxiety levels and either minimal or lack of PPE,[2] although, their emotional wellbeing is yet to be assessed comprehensively. Whilst there are measures in place to review this conservatively, this isn't always suited to everyone and, bereavement of colleagues during this time may have profound effects on those that are continuing to work whilst having suffered a loss without sufficient time made available to them to grieve. On 20th May the UK Prime Minister, Boris Johnson confirmed the deaths of 181 NHS healthcare professionals and 131 care workers, meaning a death toll had surpassed 300, primarily based on reports from hospitals within England.[3] There is minimal comfort and reassurance the government is providing to increase covid-19 testing kits to those in the frontline during this time. Whilst there may be a delay to accessing these tests within the UK, it is the responsibility of the Health Secretary to ensure that frontline NHS staff are prioritized as soon as these tests become more freely available. Additionally, the disproportionate impact on healthcare staff from ethnic minorities is of grave concern as currently no investigations have been conducted on the risk factors of COVID-19 in relation to ethnicity.[4] Furthermore, to date, the government has failed to address the mental wellbeing of NHS frontline staff to a greater extent, therefore, it remains to be seen, whether redeployed staff, are provided with the necessary support instead of just food, lodging and transportation as the aftermath of this pandemic, will look quite grim to many. Whilst some NHS organisations have provided food and lodging for healthcare professionals, there are others who still use public transportation. Coupled with long working hours, the

psychological stress may become a 'silent under layer" that could elicit counteractions of healthcare workers behaviors long term.[5] This may be perceived as a conduct or performance issue in which case, the use of disciplinary action may become yet another issue that could further impact the mental wellbeing of staff.

Resources and Support

Also, the current situation may have heightened the lack of resources needed within the NHS, thus, the risk of burnout amongst healthcare professionals is much higher currently. This coupled with isolation woes and stigmatisation of healthcare staff of being carriers of the virus themselves by some in society, everyday life has certainly become challenging.[6] Therefore, the severity of the situation formulated by the COVID-19 pandemic have resulted in a global scale of disturbances that impacts all aspects of life as we've known it to be thus far. This includes, changing our current social norms and practices to a certain extent due to perhaps heightened psychological pressures and general fear of contracting a contagious infection in the future.

Whilst it is accepted within the psychology/psychiatry community, finding opportunities to amplify positive and hopeful stories as well as positive images is vital to maintain a balanced mindset, this is next to impossible for even the most experienced healthcare professionals currently given their close proximity to the pandemic. Therefore, supporting our healthcare professionals during this time must be a priority for all and should go beyond the scope of showcasing appreciation using various initiatives. Whilst, showcasing appreciation is a positive step in the right direction, it is important to understand and appreciate, this needs to be a long-term commitment shown to the welfare of physical and mental wellbeing of healthcare professionals. This is further echoed in recent sentiments published by Jennifer Darlow, who pointed out, it takes more than a "clapping initiative" to really support the NHS workforce and that there is potential, that the current climate may well be forgotten by the public and policy makers alike once the quarantine measures have passed.[7] Further to this, Dr Hans Kluge who is the World Health Organisation's (WHO) Regional Director for Europe discussed the stressful situation that is unfolding and urged individuals, family and community members, colleagues and friends to draw on our inner strengths to remain focused and cooperative as much as possible.

Psychological impact one wellbeing

These directly and indirectly impact the psychological wellbeing of healthcare professionals as their ability to have some sense of a structured routine to help alleviate the work stress is lacking to a greater extent. Furthermore, long hours and heightened clinical input, could reduce the much-needed work-life balance in the current climate raising further complications within their work streams.[6] Given the crucial role the healthcare system plays in supporting and caring for the general public, short, medium and long-term, it is imperative, healthcare professionals remain supported to treat the severely and critically ill patients that are presenting as the UK reaches the pick of the pandemic.

Previous studies on the severe acute respiratory syndrome (SARS) outbreak in 2002 revealed the severity viral outbreaks can have upon one's mental wellbeing. Chong and colleagues,[8] showcase the rapid expansion of SARS which is similar to the COVID-19 pandemic in some ways. Rubin and colleagues,[9] Wingfield and colleagues,[10] and Brooks et al,[11] showed that the potential to transmit the disease to families and friends have been a fear weighing in healthcare professionals minds. Therefore, it is evident, the transmission method of a virus is key to mitigating the fears of healthcare professionals thus, it is vital to understand more about causation and transmission. Furthermore, better infection control protocols and their translation between clinical specialties is important to remove potential anxiety within the minds of the healthcare professionals. It is also vital to showcase that improvements to developing better psychological support tools for healthcare staff to use. Whilst each virus causing a pandemic may be different in their own right, the use of standard markers and frameworks to develop suitable clinical and non-clinical interventions is a way to prepare staff morale to better face sudden challenges. This is further cemented based on Maunder et al.[12] experience with describing staff at a Toronto hospital during the initial SARS outbreak being fearful for their own health and their families. Nickell and colleagues,[13] reported similar findings with two thirds of healthcare staff experiencing concerns of their family's health especially during the first phase of the outbreak

Figure 1, below illustrates deaths at each pandemic over the centuries. Although the widely used John Hopkins University tracer provides data on infected cases, death toll and recovery,[14] there is a lack of professional health group level data. This would be a useful set of data that could provide insightful information to developing sufficient supportive digital tools for future use in the event of a pandemic. Furthermore, statistical significance of the tracker-based data could be debatable in terms of its relevance to other parts of the world. However, it is most definitely a useful tool to have within the UK as well. Another useful dataset pertaining to this aspect is the study conducted by Lai and colleagues,[15] who conducted a cross-sectional survey of 1257 frontline workers treating patients within COVID-19 in China. This study showed that 50.4% of participants had depressive symptoms alongside of elevated levels of anxiety at 44.6%. Lai et al,[16] also reported that 34% of those who took the survey had insomnia whilst 71.5% reported non-specific psychological distress. Whilst, this study isn't a representation of all healthcare workers, it is an insightful piece of work that shows the impact of COVID-19 amongst those that faced it first. Furthermore, this dataset could be generalized across

healthcare workers albeit there may be healthcare system specific differences that could potentially include further psychological outcomes especially in the UK, Germany, USA and Italy.

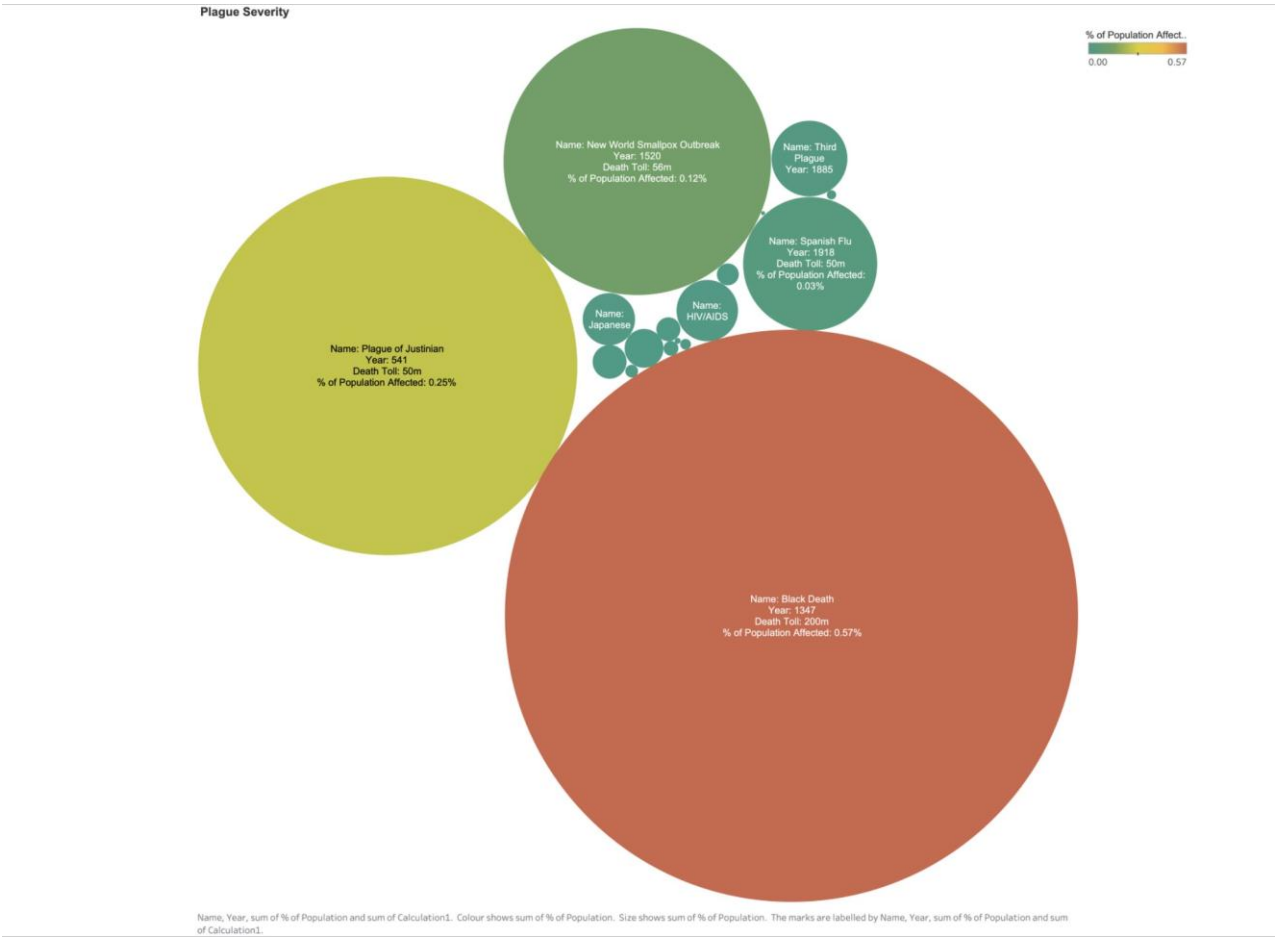

Figure 1: is a graphical presentation of deaths recorded at each pandemic. This dataset indicates that at each pandemic, the death rates have been less than 1% of the total global population. This further purports, medicine has evolved that the potential for pandemics have been significantly reduces. Furthermore, it appears, the 20th and 21st century has been primarily managing epidemics such as the HIV crises which is still better controlled compared to pandemics.

It is also important to carry out further research that is able to assess long term longitudinal data to assess the psychological impact of the frontline staff that worked during the pandemic. A similar approach was taken during the SARS outbreak that demonstrated 18-57% of the healthcare staff experienced distress that was worsened post-pandemic.[16] This further supports Wu and colleagues',[17] study of 549 hospital employed who reported persistent PTSD symptoms following a three year cohort study. Other literature has indicated that perceived risk levels to an event that is deemed unfamiliar and uncontrollable affects, increases the likelihood of developing post-traumatic stress disorder (PTSD) symptoms.[18,19] This is particularly important for young children and/or adolescence who may either have one or more family members that have worked in healthcare during an outbreak that may become susceptible to developing PTSD in their lifetime should a similar outbreak emerge. It could be further hypothesized that, those that are convalescent from an outbreak such as COVID-19, may also develop PTSD in a similar pattern.[20] It could be suggested that the impact of COVID-19 on healthcare staff with limited clinical experience could be much higher compared to experienced staff and therefore, the psychological support required would be considerably different to that of others. Given that traumatic exposures with longer duration has a strong relationship to PTSD than shorter durations, the 'marathon' period healthcare staff that will be exposed to this virus outbreak could increase the negative impact on the mental wellbeing of frontline staff. Rubin and colleagues,[21] assert that individuals exposed to highly traumatic situations exhibit resilience. Although that maybe the case, a fraction of these staff will experience psychological distress with symptoms resolving over a period of time without any formal intervention. Furthermore, some will develop mental health disorders including PTSD.

Due to hospitals being significantly unprepared for the staggering rise in the number of COVID-19 cases, essential resources such as capacity in Intensive Care

Unit and ventilators are limited which leaves the healthcare workforce feeling unable to provide the highest standard quality of care for all the rapidly unwell patients with extremely limited resources and choosing how to allocate these scarce resources between patients of equal need.[2]

Moral injury

Ethically and morally distressing decisions during pandemics is another aspect that requires our focus as even the most experienced staff find these situations difficult to manage. Litz and colleagues,[22] refers to these decisions as "moral injury" to one's ethical and moral code. This is further substantiated by harmful thoughts one may have such as "I'm a terrible person" alongside feelings of guilt and shame regarding the decisions made.[23] These symptoms could worsen over time and that could lead to depression, PTSD and suicidal ideation.[24] Whilst, there has been minimal research conducted within the area of moral injury, medical studies managing work in critical care have discussed about these aspects which was interestingly discussed by Murray and colleagues.[25] Therefore, this does provide precedence to suggest similar feelings could be those of the current healthcare workforce. Hence, further purports reasoning for the requirement of researchers to identify and explore these aspects in order to develop suitable interventions to be provided to better prepare for the future.

Table 1: Resources to manage worry, anxiety and depression.

CBT Resources to manage Worry, Anxiety and Depression		
Organisation	COVID- related anxiety	Resource link
British Association for Behavioural & Cognitive Psychotherapies (BABCP) https://www.babcp.com/	Podcast focusing on coping with anxiety about coronavirus	http://letstalkaboutcbt.libsyn.com/coping-with-anxiety-about-coronavirus
BABCP	How can CBT for Depression help with Self Isolation and Physical Distancing?	https://babcp.com/files/Accreditation/Ideas-from-depression-treatment.docx
BABCP	Accredited BABCP and AREBT Therapist register	http://cbtregisteruk.com/
World Confederation of Cognitive and Behavioural Therapies https://www.wccbt.org/	A Response to the COVID-19 pandemic from a Cognitive Behaviour Therapy (CBT) perspective	Resource pack https://www.wccbt.org/Downloads/WCCBT_e-News_March-2020.pdf
No Panic		https://nopanic.org.uk/
Anxiety UK		https://www.anxietyuk.org.uk/
Depression Alliance		https://www.depressionalliance.org/

Howbeit, the overall impact of COVID-19 may have lasting psychological effects on the healthcare workforce, it is important this subject matter remains at the forefront as a priority for researchers, policy makers and clinicians alike.[26] Never has the question *"Who cares for the people who care for the nation's health?"* stipulated by Health Education England,[27] has been more relevant.[28] There is a need to comprehend the different clinical areas that also require specific support. Furthermore, the hotline launched by the NHS to provide mental health support is being managed by volunteer staffing from Hospice UK, the Samaritans and Shout, (see table 1 for COVID-19 related resources). This may be a good imminent option to provide short term support although long term, this wouldn't be a suitable avenue to pursue. Additional, medical technological interventions such as Headspace, Sleepio, UnMind and Big Health are other possible avenues that could aid in managing staff wellbeing.[29] However, these may require further development to personalised better options to increase the uptake of this option long term.

CONCLUSION

It is important Department of Health and Social Care (DHSC) via UK Research and Innovation (UKRI) and National Institute for Health Research (NIHR) further provide options under the COVID-19 rapid response initiative and potentially identify unexplored areas that need new knowledge and improve on synthesizing existing knowledge. Equally, it is vital to have multidisciplinary approaches to improve the quality, effectiveness and efficiency of the research that would be conducted to provide meaningful outcomes that is applicable in the real-world. Furthermore, whilst the current initiative is an open invitation to UK academics, Small and medium-sized enterprises (SMEs) and wider industry participation is an important one, the focus should also be to have more transparent and focused research to be conducted that supports the wellbeing of the global healthcare population. UK could easily lead on this aspect as the NHS is the fourth largest employer in the world, as such, any research conducted could be

generalized in many different ways. Whilst, our current workforce face significant uncertainties for the foreseeable future, an appreciation and acknowledgment to the duty of care to patients and the healthcare workforce should be made unequivocally.

Author contributions

PP and GD conceived the idea for this commentary. PP and KE wrote the first draft of the manuscript. PP, KE, GD and SR revised the manuscript critically for important intellectual content. All authors read and approved the final version of the manuscript.

Declaration of interest

The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, the DHSC or the Academic institutions.

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