

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Perceptions and experiences of healthcare workers during the COVID-19 pandemic in the United Kingdom
<b>AUTHORS</b>	Vindrola-Padros, Cecilia; Andrews, Lily; Dowrick, Anna; Djellouli, Nehla; Fillmore, Harrison; Bautista Gonzalez, Elyse; Javadi, Dena; Lewis-Jackson, Sasha; Manby, Louisa; Mitchinson, Lucy; Mulcahy Symmons, Sophie; Martin, Sam; Regenold, Nina; Robinson, Hannah; Sumray, Kirsj; Singleton, Georgina; Syversen, Aron; Vanderslott, Samantha; Johnson, Ginger

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Bing Xiang Yang School of Health Sciences of Wuhan University, China
<b>REVIEW RETURNED</b>	09-Jun-2020

<b>GENERAL COMMENTS</b>	<ol style="list-style-type: none"> <li>1. I would suggest providing research ethics (e.g. participant consent, ethics approval) addressed appropriately for your study.</li> <li>2. There are many update literatures on the importance of mental health for healthcare workers among COVID-19, the author can compare the policy and healthcare workers' experience of other countries and discuss the impact in depth.</li> <li>3. In the introduction, the author refers to information about risks, interpersonal isolation, quarantine and stigma, but the result didn't show the related information.</li> <li>4. In the method, the third part "in depth (telephone) interviews" was a depth, semi-structured interviews with frontline staff, please show the interview outline.</li> <li>5. The author summarized the emerging findings from all three workstreams, but the discussion is not comprehensive, particularly when combined with examples from media and individuals, the health workers' perspective on media and policy are quite pertinent to your work and deserved to be discussed but were neglected.</li> </ol>
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<b>REVIEWER</b>	Laurel Mayer Columbia University Irving Medical Center and the New York State Psychiatric Institute, USA
<b>REVIEW RETURNED</b>	22-Jul-2020

<b>GENERAL COMMENTS</b>	This is an important qualitative study using a rapid review approach aimed to describe the (1) experience of delivering healthcare during the COVID-19 pandemic, (2) including specific concerns about training and supplies to carry out their jobs safely and (3) identifying possible underlying causes of and solutions to HCW concerns.
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	<p>The authors identified and reviewed three sources of data published between December 2019-April 2020: UK health policies, mass/social media and in-depth phone interviews (conducted only in April). The time period reflects pre-pandemic to early post-peak pandemic phases. Data selection, extraction and analyses are clear and well-described. It would be helpful to know more about the composition of the HCW group (i.e. nurses, trainees, physicians, etc.). It would also be helpful to have more details about the questions asked during the in-depth phone interview. It is reassuring that the concerns elicited in this rapid review are consistent with other published studies and anecdotal experience. Issues related to personal safety, including availability and access to appropriately fitting PPE, testing of HCWs for COVID, consistent recommendations about PPE/quarantine/isolation/return to work are paramount for HCWs to perform at their best. Anxiety related to redeployment must also be addressed. Supportive colleagues are critical, and so is providing education and adequate training on new tasks. Promoting HCW wellbeing by providing food, break rooms, and the public's expression of gratitude (#NHSheroes) also enhances HCW resilience.</p> <p>Some discussion is warranted of the limitations, including potential bias, of using print and social media to extract HCW concerns. Perhaps the authors might comment on why there were no examples from the media analysis of "good wellbeing support" (Table 2). With respect to the table, Key aspects of UK newspaper reporting, if the data collection period was Dec-April, why are only Jan, Feb and March listed in the table?</p> <p>Given how the pandemic evolved, it would be interesting to see if/how HCW experiences and concerns changed from pre-pandemic to post-peak. The authors suggest data collection is ongoing, thus perhaps a future manuscript will describe the trajectory of HCW experiences over the longer course of the pandemic.</p> <p>Overall, this is an important contribution describing the early active issues HCWs navigate as they do their best to take care of their patients during this COVID pandemic.</p>
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<b>REVIEWER</b>	Evi Germeni University of Glasgow
<b>REVIEW RETURNED</b>	10-Sep-2020

<b>GENERAL COMMENTS</b>	<p>The paper reports the findings from a rapid appraisal investigating the perceptions and experiences of healthcare workers in relation to COVID-19 and care delivery models implemented to deal with the pandemic. The study is robust and rigorous and provides some very interesting findings. A few comments follow:</p> <p><b>Introduction</b> The Introduction should be updated to incorporate recently published evidence on the topic (e.g. Houghton C, Meskeil P, Delaney H, et al. Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: A rapid qualitative evidence synthesis. Cochrane Database of Systematic Reviews 2020, Issue 4: CD013582).</p> <p><b>Methods &amp; Results</b> I feel that a more elaborate description of the methods used and the results obtained would substantially enhance the quality of this submission. For instance, when describing the healthcare policy</p>
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	<p>review, the authors mention that “a third researcher with expertise in health systems analysis identified the main topics emerging from the data...” (page 3), but no further information is provided on how these topics were identified (e.g. was a content analysis approach employed?). Also, although for the most part the reporting of the qualitative study is in line with the COREQ guidance, there are some items which either are not reported at all or should be more explicitly reported (e.g. participants’ socio-demographic characteristics, number of individuals refusing to take part in the study). Similarly, I would appreciate a more thorough presentation of the study findings, including more quotations to support themes identified.</p> <p>Discussion</p> <p>The Discussion is also rather brief and does not do justice to the breadth of the work already presented. I would encourage the authors to elaborate more on the implications of their findings, illustrate better the strengths and limitations of their approach, and offer lessons learnt from their experience.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Bing Xiang Yang

Institution and Country: School of Health Sciences of Wuhan University, China

Please state any competing interests or state ‘None declared’: None declared.

1. I would suggest providing research ethics (e.g. participant consent, ethics approval) addressed appropriately for your study.

- Reply: we have added information on the informed consent process as well as ethical review and approval processes on page 5.

2. There are many update literatures on the importance of mental health for healthcare workers among COVID-19, the author can compare the policy and healthcare workers’ experience of other countries and discuss the impact in depth.

- Reply: we have updated our discussion of the literature on this topic and have discussed the findings in relation to our own (within the limitations of the word count).

3. In the introduction, the author refers to information about risks, interpersonal isolation, quarantine and stigma, but the result didn’t show the related information.

- Reply: many thanks for this comment. We have focused the literature presented in the introduction.

4. In the method, the third part “in depth (telephone) interviews” was a depth, semi-structured interviews with frontline staff, please show the interview outline.

- Reply: we have included the interview topic guide as Appendix 2.

5. The author summarized the emerging findings from all three workstreams, but the discussion is not comprehensive, particularly when combined with examples from media and individuals, the health workers’ perspective on media and policy are quite pertinent to your work and deserved to be discussed but were neglected.

- Reply: we have revised the discussion section.

Reviewer: 2

Reviewer Name: Laurel Mayer

Institution and Country: Columbia University Irving Medical Center and the New York State Psychiatric Institute, USA

Please state any competing interests or state 'None declared': None declared.

Please leave your comments for the authors below

This is an important qualitative study using a rapid review approach aimed to describe the (1) experience of delivering healthcare during the COVID-19 pandemic, (2) including specific concerns about training and supplies to carry out their jobs safely and (3) identifying possible underlying causes of and solutions to HCW concerns. The authors identified and reviewed three sources of data published between December 2019-April 2020: UK health policies, mass/social media and in-depth phone interviews (conducted only in April). The time period reflects pre-pandemic to early post-peak pandemic phases. Data selection, extraction and analyses are clear and well-described. It would be helpful to know more about the composition of the HCW group (i.e. nurses, trainees, physicians, etc.). It would also be helpful to have more details about the questions asked during the in-depth phone interview.

• Reply: we have included additional information on the study sample in Table 2 and we have added the interview topic guide as Appendix 2.

It is reassuring that the concerns elicited in this rapid review are consistent with other published studies and anecdotal experience. Issues related to personal safety, including availability and access to appropriately fitting PPE, testing of HCWs for COVID, consistent recommendations about PPE/quarantine/isolation/return to work are paramount for HCWs to perform at their best. Anxiety related to redeployment must also be addressed. Supportive colleagues are critical, and so is providing education and adequate training on new tasks. Promoting HCW wellbeing by providing food, break rooms, and the public's expression of gratitude (#NHSheroes) also enhances HCW resilience.

Some discussion is warranted of the limitations, including potential bias, of using print and social media to extract HCW concerns. Perhaps the authors might comment on why there were no examples from the media analysis of "good wellbeing support" (Table 2). With respect to the table, Key aspects of UK newspaper reporting, if the data collection period was Dec-April, why are only Jan, Feb and March listed in the table?

• Reply: We have reflected on the limitations of using print and social media and combining these data with interview data in the strengths and limitations section on page 2. The data collection period was Dec 2019-April 2020. The examples in Table 2 are only illustrations and do not represent the complete dataset.

Given how the pandemic evolved, it would be interesting to see if/how HCW experiences and concerns changed from pre-pandemic to post-peak. The authors suggest data collection is ongoing, thus perhaps a future manuscript will describe the trajectory of HCW experiences over the longer course of the pandemic. Overall, this is an important contribution describing the early active issues HCWs navigate as they do their best to take care of their patients during this COVID pandemic.

• Reply: many thanks. As the reviewer indicates, this paper was designed to share emerging findings at a time then these could be used to inform response efforts during the pandemic. Our study continues to capture HCWs' experiences and perceptions as the pandemic evolves (now going into the second surge in the UK) and these findings will be presented in a future paper.

Reviewer: 3

Reviewer Name: Evi Germei

Institution and Country: University of Glasgow

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

The paper reports the findings from a rapid appraisal investigating the perceptions and experiences of healthcare workers in relation to COVID-19 and care delivery models implemented to deal with the pandemic. The study is robust and rigorous and provides some very interesting findings. A few comments follow:

#### Introduction

The Introduction should be updated to incorporate recently published evidence on the topic (e.g. Houghton C, Meskell P, Delaney H, et al. Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: A rapid qualitative evidence synthesis. Cochrane Database of Systematic Reviews 2020, Issue 4: CD013582).

- Reply: we have updated the literature discussed in the manuscript in the introduction as well as the discussion.

#### Methods & Results

I feel that a more elaborate description of the methods used and the results obtained would substantially enhance the quality of this submission. For instance, when describing the healthcare policy review, the authors mention that "a third researcher with expertise in health systems analysis identified the main topics emerging from the data..." (page 3), but no further information is provided on how these topics were identified (e.g. was a content analysis approach employed?). Also, although for the most part the reporting of the qualitative study is in line with the COREQ guidance, there are some items which either are not reported at all or should be more explicitly reported (e.g. participants' socio-demographic characteristics, number of individuals refusing to take part in the study). Similarly, I would appreciate a more thorough presentation of the study findings, including more quotations to support themes identified.

- Reply: we have included additional information on the method used to analyse the policies on pages 3-4. Due to word count limits, we have included additional information in supplementary file 1.
- Reply: we have revised the manuscript to ensure we report the study design and implementation in relation to COREQ guidance. We have added information on the study sample in Table 1.
- Reply: we have added interview quotes in Table 2 and have integrated some of these in the text (pgs. 7-9) (to the best of our ability within the word count limit).

#### Discussion

The Discussion is also rather brief and does not do justice to the breadth of the work already presented. I would encourage the authors to elaborate more on the implications of their findings, illustrate better the strengths and limitations of their approach, and offer lessons learnt from their experience.

- Reply: we have revised the discussion to include a more in-depth discussion of the findings in relation to recent literature and reflect on the lessons learnt. We have expanded the strengths and limitations section on page 2.

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Evi Germeni University of Glasgow, UK
<b>REVIEW RETURNED</b>	16-Oct-2020
<b>GENERAL COMMENTS</b>	The authors have satisfactorily addressed all of my previous concerns. I have no further comments.