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

TITLE (PROVISIONAL)	A Rapid Ethnographic Assessment of the COVID-19 Pandemic
	April 2020 "Surge" and its Impact on Service Delivery in an Acute
	Care Medical Emergency Department and Trauma Center
AUTHORS	Palinkas, Lawrence A.; Whiteside, Lauren; Nehra, Deepika;
	Engstrom, Allison; Taylor, Mark; Moloney, Kathleen; Zatzick,
	Douglas

VERSION 1 – REVIEW

REVIEWER	Hamde Nazar
	Newcastle University, UK
REVIEW RETURNED	09-Jul-2020

GENERAL COMMENTS	Many thanks for the opportunity to review this work which has employed ethnography to capture the impact of the COVID-19 pandemic on service delivery and on staff experiences and coping strategies. The work is well written and easy to read. The research approach is entirely appropriate to delve into the lived experiences of staff and report on the impact on the workings of the system. The data collection and reporting is extensive. Despite the acknowledged limitations on size, single site and less severely COVID affected area, the description of themes do resonate with much of the anecdotal and media stories. However, the robust methodology means that this obviously goes beyond the realms of journalism. Work such as this is important, as authors suggest, for healthcare systems in these times to improve awareness of potential impacts of the pandemic and inform strategies to address them where required. However, the accounts thematically summarised here are meaningful to capture for the recording of history of this global event for years to come. There were very few concerns raised whilst reading the work, indeed they are very minor: pg9 what is a PO? Please define on first use pg 13 last line of the paragraph needs to be reviewed.
	The labels in the figure need to be a larger font size for readability.

REVIEWER	Ayako Kohno
	Kyoto University, Japan
REVIEW RETURNED	18-Aug-2020

GENERAL COMMENTS	Thank you for the opportunity to review the manuscript titled 'A
	Rapid Ethnographic Assessment of the COVID-19 Pandemic April
	2020 "Surge" and its Impact on Service Delivery in an Acute Care
	Medical Emergency Department and Trauma Center'. This
	manuscript describes a situation of COVID-19 at the early stage of

is spread, and how the emergency room of a hospital in the US had coped with the unforeseen situation, and revealing what were the impacts to the front-line healthcare providers, as well as to identify strategies for them to cope with the physical and mental health demands.

By carefully reviewing the manuscript, there are a few things that needs improvement, as described in details as below. I think by modifying below points, this manuscript can be improved to the level which can be considered for publication.

Reviewer Comments

Thank you for the opportunity to review the manuscript titled 'A Rapid Ethnographic Assessment of the COVID-19 Pandemic April 2020 "Surge" and its Impact on Service Delivery in an Acute Care Medical Emergency Department and Trauma Center'. This manuscript describes a situation of COVID-19 at the early stage of is spread, and how the emergency room of a hospital in the US had coped with the unforeseen situation, and revealing what were the impacts to the front-line healthcare providers, as well as to identify strategies for them to cope with the physical and mental health demands.

By carefully reviewing the manuscript, there are a few things that needs improvement, as described in details as below. I think by modifying below points, this manuscript can be improved to the level which can be considered for publication. Please refer to the detailed points as below:

Detailed points:

Brief explanation of what is "social distancing" in the context of this study may add clarity to describe the situation of measures against COVID-19 prevention in the United States. I believe that, although the word "social distancing" is rapidly widespread globally, the definition of it or actual way of doing "social distancing" may differ slightly by country. Therefore, it is preferable if the authors describe in what ways the social distancing is (was) conducted in the United States at the time when this research was conducted. Especially with regards to line 40 on page 7 of the manuscript, it adds clarity when what authors elaborate more in details how health care providers' personal and professional behavior were impacted due to forced change of social distancing.

On page 8, line 38, the use of the word "secondary study" might be misleading. In qualitative research, there are cases when the authors use "secondary data" for analysis, which is to use data originally collected for other purpose, and conduct analysis for a different research aim. In this study, the author probably meant to say that the qualitative study is a supplemental study of the main study which is a large randomized trial. In this case, it is better to rephrase the word "secondary study" with something else, in order to clearly state what the author intended to do with this study.

Explanations are needed to show the volume of data that was analyzed in this study. Field notes and interviews for how long (the duration) or how many pages when reduced to a written form? Any information that clarify the data volume in total is preferable. On this point, the authors briefly address the duration of the data collection (participant observation) as 1 to 4 weeks on page 21,

line 40, but this needs to be address in the methods section and elaborate so that the readers can understand the overall duration of the data collection procedure.

On page 9, lines 4 to 20, the sentence is too long. It needs editing by splitting into several sentences. Also, in line 8, there is a grammatical error. It is easier to read to add "to" in front of "iteratively assess...".

On page 9, lines 52 to 54, it was described that the participants received training. However, the details of how the training was conducted and what information was used for such training is not clear. It needs to be added for clarity.

On page 12, the authors need to write out what PPE is in full and give a brief explanation about it, when used for the first time in the manuscript.

On page 13 line 17, there was a description about "changes in guideline". Is this guideline only internal one for the hospital, or is there any guideline issued by the medical association or CDC in the United States concerning COVID-19 prevention? Additional information to clarify what is the guideline that the authors are referring to would be helpful to improve readability of this manuscript.

In lines 24 in page 13 (in the section on "Distancing"), there is a reference to "social distancing guidelines". Is it different from the guideline that was address earlier section of the manuscript?

On page 14, line 15 to 17, the sentence as below need revising. "This reluctance ed to concerns about the quality of care delivered to such patients."

On page 16, line 38, can you describe what is meant by "sharing of PPE"? It may be inferred that two health care providers are "sharing" used PPEs and that seems not appropriate but unavoidable if resources are limited. If authors meant that two health care providers are personally giving new PPEs to each other in time of resource scarcity, then I think it needs rephrasing.

On page 17, line 22, what does the authors mean by the word "reflexivity"? It is confusing with the word used in the context of qualitative research analysis process. If this was the behavior taken by the study participants to take some time off to reflect upon their thoughts and feelings and bring peace of mind, I think it needs rewording.

In the methods section, a brief explanation of socio-ecological model is needed. Also, the authors need to write justification of why they used socio-ecological model in this study as a conceptual framework of the study.

The authors need to explain, in such cases as when the participant observers are both the researcher and the participants (i.e. data provider), how do you consider the issue of informed consent when taking data from them?

It is stated in the manuscript that the authors used interview guide in this study. If so, the exemplary list of questions during the interviews need to be explained in the text, or the interview guide can be attached as supplementary documents. Also, the authors need to specify how the interviews were recorded. Was it audio-recorded or recorded as videos? A brief description of how it was recorded needs to be explained.

In Tables 1 to 4, it is good to add information of which quotes are coming from jotting down as memos/field notes by the principal observers, and which other ones are the written transcripts of the debriefing interviews or member-checking debriefing interviews.

For Table 2, some of the subthemes do not have assigned levels of socio-ecological model. Is it intentionally left as blank or did the authors forgot to fill in the information?

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Many thanks for the opportunity to review this work which has employed ethnography to capture
the impact of the COVID-19 pandemic on service delivery and on staff experiences and coping
strategies.

The work is well written and easy to read. The research approach is entirely appropriate to delve into the lived experiences of staff and report on the impact on the workings of the system. The data collection and reporting is extensive. Despite the acknowledged limitations on size, single site and less severely COVID affected area, the description of themes do resonate with much of the anecdotal and media stories. However, the robust methodology means that this obviously goes beyond the realms of journalism. Work such as this is important, as authors suggest, for healthcare systems in these times to improve awareness of potential impacts of the pandemic and inform strategies to address them where required. However, the accounts thematically summarised here are meaningful to capture for the recording of history of this global event for years to come.

We thank the reviewer for the generous assessment of our work.

• There were very few concerns raised whilst reading the work, indeed they are very minor: pg9 what is a PO? Please define on first use

We now describe the research team members as participant observers (POs) on p. 9 of the revised manuscript.

pg 13 last line of the paragraph needs to be reviewed.

We revised the last lines of the first two paragraphs on p. 13 to clarify their meaning.

The labels in the figure need to be a larger font size for readability.

We have increased the font size of the figure to improve readability as suggested.

Reviewer 2

Thank you for the opportunity to review the manuscript titled 'A Rapid Ethnographic Assessment of the COVID-19 Pandemic April 2020 "Surge" and its Impact on Service Delivery in an Acute Care Medical Emergency Department and Trauma Center'. This manuscript describes a situation of COVID-19 at the early stage of is spread, and how the emergency room of a hospital in the US had coped with the unforeseen situation, and revealing what were the impacts to the front-line healthcare providers, as well as to identify strategies for them to cope with the physical and mental health demands.

By carefully reviewing the manuscript, there are a few things that needs improvement, as described in details as below. I think by modifying below points, this manuscript can be improved to the level which can be considered for publication. Please refer to the detailed points as below:

• Detailed points: Brief explanation of what is "social distancing" in the context of this study may add clarity to describe the situation of measures against COVID-19 prevention in the United States. I believe that, although the word "social distancing" is rapidly widespread globally, the definition of it or actual way of doing "social distancing" may differ slightly by country. Therefore, it is preferable if the authors describe in what ways the social distancing is (was) conducted in the United States at the time when this research was conducted. Especially with regards to line 40 on page 7 of the manuscript, it adds clarity when what authors elaborate more in details how health care providers' personal and professional behavior were impacted due to forced change of social distancing.

We were unable to find any referencing to social distancing anywhere on page 7, but in response to the reviewer's request, we have provided on p. 13 the CDC guidelines on social distancing that were the basis for changes in procedures in the trauma center:

"According to the Centers for Disease Control, social distancing, also called "physical distancing," means keeping a safe space between yourself and other people who are not from your household.³⁷ To practice social or physical distancing, the CDC recommends that one stay at least 6 feet (about 2 arms' length) from other people who are not from your household in both indoor and outdoor spaces. Within the trauma center, social distancing included protocols and procedures designed to minimize person-to-person contact."

On page 8, line 38, the use of the word "secondary study" might be misleading. In qualitative research, there are cases when the authors use "secondary data" for analysis, which is to use data originally collected for other purpose, and conduct analysis for a different research aim. In this study, the author probably meant to say that the qualitative study is a supplemental study of the main study which is a large randomized trial. In this case, it is better to rephrase the word "secondary study" with something else, in order to clearly state what the author intended to do with this study.

We have eliminated the phrase "secondary study" to avoid confusion. This study was embedded within a larger randomized comparative effectiveness trial

• Explanations are needed to show the volume of data that was analyzed in this study. Field notes and interviews for how long (the duration) or how many pages when reduced to a written form? Any information that clarify the data volume in total is preferable. On this point, the authors briefly address the duration of the data collection (participant observation) as 1 to 4 weeks on page 21, line 40, but this needs to be address in the methods section and elaborate so that the readers can understand the overall duration of the data collection procedure.

In response to the reviewer's comments, we have inserted the following on p. 10 of the revised manuscript.

"Two hundred and sixty-eight double-space pages of field notes, jottings, memos, documents and transcripts of the member-checking debriefing interviews collected over a 4-week period were then coded by the first author to condense the data into analyzable units."

We also note on p. 10 that debriefs lasted between 50 and 60 minutes in duration and were reviewed by the participant observers, enabling to revise or elaborate on statements made.

• On page 9, lines 4 to 20, the sentence is too long. It needs editing by splitting into several sentences. Also, in line 8, there is a grammatical error. It is easier to read to add "to" in front of "iteratively assess...".

As recommended, we split the sentence on page 9 into three sentences:

"POs were charged with observing and recording events that illustrate the impacts of the pandemic on provider performance and well-being and on provider interactions with patients, family members and other providers. They also collected reports from other acute care providers and staff of physical and emotional impacts of additional workload. Finally, POs were asked to obtain information on strategies used by providers to cope with the increased personal and professional demands imposed by the pandemic."

We have also added "to" before "iteratively assess" as recommended.

• On page 9, lines 52 to 54, it was described that the participants received training. However, the details of how the training was conducted and what information was used for such training is not clear. It needs to be added for clarity.

We now indicate that participants were given training on the principles and practice of RAPICE, including what information to collect and how, i.e., through observation and informal interviews with other providers and staff, and how to record information collected in field jottings and field notes.

• On page 12, the authors need to write out what PPE is in full and give a brief explanation about it, when used for the first time in the manuscript.

We now indicate in this section that PPE stands for Personal Protective Equipment and provide examples of types of PPE.

On page 13 line 17, there was a description about "changes in guideline". Is this guideline only
internal one for the hospital, or is there any guideline issued by the medical association or CDC in
the United States concerning COVID-19 prevention? Additional information to clarify what is the
guideline that the authors are referring to would be helpful to improve readability of this
manuscript.

The guidelines described referred to a change in hospital protocol that mandated the use of face masks in accordance with CDC guidelines. Prior to that, face masks were recommended but not mandated. We have indicated this in the following on p. 14 of the revised manuscript:

"Some providers commented on the potential risk of infection created by improper use and the unwillingness of other providers to use PPEs in some units prior to the implementation of new guidelines mandating their use that replaced old guidelines that merely recommended their use."

• In lines 24 in page 13 (in the section on "Distancing"), there is a reference to "social distancing guidelines". Is it different from the guideline that was address earlier section of the manuscript?

We refer the reviewer to our response to his/her first comment. Social distancing refers to the same CDC guideline.

• On page 14, line 15 to 17, the sentence as below need revising. "This reluctance ed to concerns about the quality of care delivered to such patients."

We have revised the sentence has follows:

"This reluctance led to concerns that such patients were not receiving optimal and necessary services."

On page 16, line 38, can you describe what is meant by "sharing of PPE"? It may be inferred that
two health care providers are "sharing" used PPEs and that seems not appropriate but
unavoidable if resources are limited. If authors meant that two health care providers are
personally giving new PPEs to each other in time of resource scarcity, then I think it needs
rephrasing.

We now explain that providers assisted one another in acquiring PPE, not in sharing them.

• On page 17, line 22, what does the authors mean by the word "reflexivity"? It is confusing with the word used in the context of qualitative research analysis process. If this was the behavior taken by the study participants to take some time off to reflect upon their thoughts and feelings and bring peace of mind, I think it needs rewording. In the methods section, a brief explanation of socio-ecological model is needed. Also, the authors need to write justification of why they used socio-ecological model in this study as a conceptual framework of the study.

We explain what we mean by reflexivity within the context of training our participant observers to collect and record data on p. 9 of the revised manuscript.

"This training included the principles and practice of RAPICE, what information to collect and how, (i.e., through observation and informal interviews with other providers and staff), how to record information collected in field jottings and field notes, and how to acknowledge and manage the researcher's subjectivity through reflexivity, or systematic awareness of the potential for bias and distortion.^{35"}

We also provide a brief explanation of the socio-ecological model and explain why it was used as a conceptual framework of the study on p. 7 of the revised manuscript.

"Our examination of impacts and strategies was guided by a conceptual framework grounded in the social-ecological model of behavior. This model argues that individual behavior is shaped by factors at multiple levels, including institutional, community, and policy levels in addition to intrapersonal and interpersonal levels.²⁷ In this instance, the individual behavior is that of the providers and patients that define the quality of care provided by one individual (the health care provider) and received by another individual (the patient).²⁸ The social-ecological model has been also used in other studies of health services delivery in emergency department settings.²⁹"

• The authors need to explain, in such cases as when the participant observers are both the researcher and the participants (i.e. data provider), how do you consider the issue of informed consent when taking data from them?

This following explanation is now provided on pp. 8-9 of the revised manuscript:

"The trauma center providers and staff were aware of the participant observer's role as researchers involved in the parent study and the focus of their investigation per approval by the IRBs of the University of Washington and University of Southern California (UP-20-00298) prior to the initiation of the investigation. Informed consent from the participant observers themselves was obtained from the first author."

• It is stated in the manuscript that the authors used interview guide in this study. If so, the exemplary list of questions during the interviews need to be explained in the text, or the interview

guide can be attached as supplementary documents. Also, the authors need to specify how the interviews were recorded. Was it audio-recorded or recorded as videos? A brief description of how it was recorded needs to be explained.

At the suggestion of the reviewer, we have attached the interview guide as a Supplementary document (see Attachment 4 – Guide for Conducting COVID-19 Debriefs). We also explain on p. 10 that the interviews were conducted on the Zoom platform, recorded as videos, and transcribed for analysis:

"A copy of the debriefing interview guide is provided as a supplementary document. Debriefs lasting between 50 and 60 minutes in duration were conducted using the Zoom video conferencing platform, recorded, and transcribed for analysis."

• In Tables 1 to 4, it is good to add information of which quotes are coming from jotting down as memos/field notes by the principal observers, and which other ones are the written transcripts of the debriefing interviews or member-checking debriefing interviews.

At the suggestion of the reviewer, we have indicated whether the quote was contained in the transcript of a debriefing interview, fieldnotes, or jottings (see Attachment 5)

• For Table 2, some of the subthemes do not have assigned levels of socio-ecological model. Is it intentionally left as blank or did the authors forgot to fill in the information?

We now have assigned levels of the socioecological model for each subtheme in the tables (see Attachment 5 – Revised COVID-19 RAPICE Tables). We had inadvertently omitted some of them in the previous version of the manuscript.

VERSION 2 - REVIEW

REVIEWER	Hamde Nazar
	Newcastle University, UK
REVIEW RETURNED	07-Sep-2020
GENERAL COMMENTS	The authors have made appropriate amendments to the paper to improve on conceptual grounding and in areas where extra detail was required.
REVIEWER	Ayako Kohno
	Kyoto University, Japan
REVIEW RETURNED	13-Sep-2020
GENERAL COMMENTS	The wrriten pages in SRQR checklist are not updated for the
	revised manuscript. Please re-submit the revised SRQR checklist.

Reviewer # 2:

The written pages in SRQR checklist are not updated for the revised manuscript. Please re-submit the revised SRQR checklist.

As suggested by the reviewer, we have uploaded an updated version of the SRQR Checklist that corresponds with the page numbers of the revised manuscript.