

## 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>	Risk of COVID-19-related bullying, harassment, and stigma among health care workers: An analytical cross-sectional global study
<b>AUTHORS</b>	Dye, Timothy; Alcantara, Lisette; Siddiqi, Shazia; Barbosu, Monica; Sharma, Saloni; Panko, Tiffany; Pressman, Eva

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Antonio Baldassarre Careggi University Hospital of Florence
<b>REVIEW RETURNED</b>	27-Nov-2020

<b>GENERAL COMMENTS</b>	<p>Dear Authors,</p> <p>your contribution proposal deals with a criticality that has plagued public health for decades, often underestimated by stakeholders called upon to manage exceptional events such as the ongoing CoViD-19 pandemic.</p> <p>I believe you can further improve the elaborate, still a bit raw as a potential interest for both the scientific community and general audience. I tried to give you some suggestions to help you in this very first review phase in the attached file.</p> <p>Please update these gaps referring to the following non-exhaustive non-mandatory references list:</p> <ul style="list-style-type: none"> <li>- Sauer, K.S.; Jungmann, S.M.; Witthöft, M. Emotional and Behavioral Consequences of the COVID-19 Pandemic: The Role of Health Anxiety, Intolerance of Uncertainty, and Distress (In)Tolerance. <i>Int. J. Environ. Res. Public Health</i> 2020, 17, 7241</li> <li>- Irigoyen-Camacho, M.E.; Velazquez-Alva, M.C.; Zepeda-Zepeda, M.A.; Cabrer-Rosales, M.F.; Lazarevich, I.; Castaño-Seiquer, A. Effect of Income Level and Perception of Susceptibility and Severity of COVID-19 on Stay-at-Home Preventive Behavior in a Group of Older Adults in Mexico City. <i>Int. J. Environ. Res. Public Health</i> 2020, 17, 7418</li> <li>- Baldassarre, A.; Giorgi, G.; Alessio, F.; Lulli, L.G.; Arcangeli, G.; Mucci, N. Stigma and Discrimination (SAD) at the Time of the SARS-CoV-2 Pandemic. <i>Int. J. Environ. Res. Public Health</i> 2020, 17, 6341</li> <li>- Ding Y, Du X, Li Q, Zhang M, Zhang Q, Tan X, et al. (2020) Risk perception of coronavirus disease 2019 (COVID-19) and its related factors among college students in China during quarantine. <i>PLoS ONE</i> 15(8): e0237626</li> <li>- Sarah Dryhurst, Claudia R. Schneider, John Kerr, Alexandra L. J. Freeman, Gabriel Recchia, Anne Marthe van der Bles, David</li> </ul>
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	<p>Spiegelhalter &amp; Sander van der Linden (2020) Risk perceptions of COVID-19 around the world, Journal of Risk Research, DOI: 10.1080/13669877.2020.1758193</p> <p>- Wise, T., et al. (2020) Changes in risk perception and self-reported protective behaviour during the first week of the COVID-19 pandemic in the United States. Royal Society Open Science. doi.org/10.1098/rsos.200742</p> <p>The methodological part must be thoroughly revised, completing it with the administered questionnaire. The part of the results must be completely modified, trying not to make a simple copy and paste of the answers.</p> <p>Discussion can be improved, as far as conclusions.</p>
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<b>REVIEWER</b>	Ahmed Samir Abdelhafiz National Cancer Institute, Cairo University
<b>REVIEW RETURNED</b>	28-Nov-2020

<b>GENERAL COMMENTS</b>	<p>Thank you for allowing me to review this manuscript. The topic is timely and important, since healthcare workers carry a great burden during the pandemic. Stigma and bullying may add more factors to the stress they already face during this critical period of time. The manuscript is interesting and well written. I have some minor comments.</p> <p><b>Introduction</b> It would be interesting to start with providing a definition for what you mean by stigma and bullying in the context of this article.</p> <p><b>Results</b> Please add the sample number in the head of each tables.</p> <p><b>Discussion</b> An important factor that may be associated with COVID-19 associated stigma is the unprecedented media coverage, which was associated with fear and panic around the world. Please add shed some light about this point.</p> <p>The media coverage may also play a negative or a positive role in stigma against HCW. In the introduction, you mentioned the example of Mexico, did the media direct the public in a certain way? I think looking into the news and the role it played in this aspect would be interesting as well.</p> <p>Another factor that may be discussed as well is the political support for the governments and political leaders. Did the governments support HCW or not? And were the measures taken protective for them or not? What happened to the families of HCW who died during the pandemic? These factors may play an important role in the feeling of HCW that they are supported or left alone to face stigma and bullying.</p> <p>It was interesting to know that social media was protective to some degree against stigma and bullying. I think this point needs more discussion.</p> <p><b>Limitations</b> Another limitation that should be added in my opinion is that analysis was done by region and not by country. Different</p>
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	<p>countries in the same region may have different situations regarding the number of cases, government and public dealing with the pandemic, etc, which could be reflected on the issue of stigma and bullying.</p> <p>Another factor that was not evaluated is the socioeconomic variable of participants (family income, living in urban/rural areas). This could also affect the responses.</p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer Comment	Authors' Response
<b>Reviewer 1 Comments</b>	
<p><i>your contribution proposal deals with a criticality that has plagued public health for decades, often underestimated by stakeholders called upon to manage exceptional events such as the ongoing CoViD-19 pandemic</i></p>	<p>Thank you for acknowledging the significance and importance of our study.</p>
<p><i>I believe you can further improve the elaborate, still a bit raw as a potential interest for both the scientific community and general audience. I tried to give you some suggestions to help you in this very first review phase in the attached file.</i></p>	<p>Thank you for your time and effort in editing our manuscript; these edits strengthen our work and help communicate our points better to a global audience, which is our shared goal.</p>
<p><i>Please update these gaps referring to the following non-exhaustive non-mandatory references list:</i></p> <ul style="list-style-type: none"> <li>- Sauer, K.S.; Jungmann, S.M.; Witthöft, M. <i>Emotional and Behavioral Consequences of the COVID-19 Pandemic: The Role of Health Anxiety, Intolerance of Uncertainty, and Distress (In)Tolerance. Int. J. Environ. Res. Public Health</i> 2020, 17, 7241</li> <li>- Irigoyen-Camacho, M.E.; Velazquez-Alva, M.C.; Zepeda-Zepeda, M.A.; Cabrer-Rosales, M.F.; Lazarevich, I.; Castaño-Seiquer, A. <i>Effect of Income Level and Perception of Susceptibility and Severity of COVID-19 on Stay-at-Home Preventive Behavior in a Group of Older Adults in Mexico City. Int. J. Environ. Res. Public Health</i> 2020, 17, 7418</li> </ul>	<p>We are grateful for these suggestions. We have indeed incorporated several into our current revision – in total we added six new references to our work.</p>
<ul style="list-style-type: none"> <li>- Baldassarre, A.; Giorgi, G.; Alessio, F.; Lulli, L.G.; Arcangeli, G.; Mucci, N. <i>Stigma and Discrimination (SAD) at the Time of the SARS-CoV-2 Pandemic. Int. J. Environ. Res. Public Health</i> 2020, 17, 6341</li> <li>- Ding Y, Du X, Li Q, Zhang M, Zhang Q, Tan</li> </ul>	

<p>X, et al. (2020) Risk perception of coronavirus disease 2019 (COVID-19) and its related factors among college students in China during quarantine. PLoS ONE 15(8): e0237626</p> <p>- Sarah Dryhurst, Claudia R. Schneider, John Kerr, Alexandra L. J. Freeman, Gabriel Recchia, Anne Marthe van der Bles, David Spiegelhalter &amp; Sander van der Linden (2020) Risk perceptions of COVID-19 around the world, Journal of Risk Research, DOI: 10.1080/13669877.2020.1758193</p> <p>- Wise, T., et al. (2020) Changes in risk perception and self-reported protective behaviour during the first week of the COVID-19 pandemic in the United States. Royal Society Open Science. doi.org/10.1098/rsos.200742</p>	
<p>Rev: Define stigma before approaching it to the occupational setting of health care. (P5, Line 1-14)</p>	<p>Thank you for this suggestion. We now open the paper with reference to Link and Phelan's 2001 definition of stigma, which helps center this manuscript.</p>
<p>Rev: please provide all informations (participant consent, ethics approval) (P7, Line 42-56)</p>	<p>We have confirmed that the Ethics section is complete, including the IRB approval number.</p>
<p>Rev: Why just until May 29? (P8, Line 23)</p>	<p>We have added a statement to this section of the methods that explains we stopped data collection once we reached our sample size goals.</p>
<p>Rev: can economic accomodation represent an issue? Explain why (P9, Line 9-13)</p>	<p>Thank you for mentioning this point. Our main perspective is that this study was voluntary and participants were not paid except those who participated as a function of their role as digital workers for Amazon's mTURK platform. As workers, mTURK participants require payment for completing tasks.</p>
<p>Rev: KFF's Coronavirus Poll is the study within you nested this contribution?</p>	<p>Some of the <u>question formats</u> that we used came from the KFF Coronavirus Poll</p>

<p><i>As above, please provide all informations about authorization obtained (P9, Line 21-25)</i></p>	<p>questionnaire; our study was not nested within the KFF Poll. We now added extra clarification that we used or adapted only the formats of the KFF Coronavirus Poll (which was one of the few studies that pre-existed ours).</p>
<p><i>Rev: Did you investigated SES (SocioEconomic Status)? (page 9)</i></p>	<p>We did not expressly investigate SES, though did include “Ownership of material assets” (in this study to include a car or home) as a proxy. As we noted in the Results (and Tables), material assets were indeed associated with working in a health care setting but were not associated with experiencing bullying.</p>
<p><i>Rev: methods are not clear, please provide the entire questionnaire used and define if it's validated or tailored from validated tools (page 9)</i></p>	<p>We included details about the development of the questionnaire and operationalization of the core variables in the Methods section. We uploaded the four questionnaires (English, Spanish, French, Italian) as Supplementary Material.</p>
<p><i>Rev: where are inclusion and exclusion criteria? (page 10)</i></p>	<p>We had included inclusion criteria (“Inclusion criteria included self-identification as age 18 and older and able to complete the survey in English, Spanish, French, or Italian”) in the Respondents section of our methods.</p>
<p><i>Rev: as above mentioned, please provide all informations. Where's the ethical committee approval number? (P11, Line 26)</i></p>	<p>We have confirmed that all ethics details are mentioned, including the approval number.</p>
<p><b>Reviewer 2 Comments:</b></p>	

<p><i>Thank you for allowing me to review this manuscript. The topic is timely and important, since healthcare workers carry a great burden during the pandemic. Stigma and bullying may add more factors to the stress they already face during this critical period of time. The manuscript is interesting and well written. I have some minor comments.</i></p>	<p>Thank you, Reviewer 2, for your endorsement of the importance of this topic and for your kind words about our manuscript!</p>
<p><i>Introduction</i>  <i>It would be interesting to start with providing a definition for what you mean by stigma and bullying in the context of this article.</i></p>	<p>Thank you for this comment, which Reviewer #1 also pointed out. We now open the paper with reference to Link and Phelan's 2001 definition of stigma, which helps center this manuscript.</p>
<p><i>Results</i>  <i>Please add the sample number in the head of each tables.</i></p>	<p>Thank you for this suggestion, we have added the sample numbers as requested.</p>
<p><i>Discussion</i>  <i>An important factor that may be associated with COVID-19 associated stigma is the unprecedented media coverage, which was associated with fear and panic around the world. Please add shed some light about this point. The media coverage may also play a negative or a positive role in stigma against HCW. In the introduction, you mentioned the example of Mexico, did the media direct the public in a certain way? I think looking into the news and the role it played in this aspect would be interesting as well.</i></p>	<p>Thank you for making this recommendation – we agree that media is important. We have added a paragraph at the end of the Discussion section that brings in both the popular media and social media.</p>
<p><i>Another factor that may be discussed as well is the political support for the governments and political leaders. Did the governments support HCW or not? And were the measures taken protective for them or not? What happened to the families of HCW who died during the pandemic? These factors may play an important role in the feeling of HCW that they are supported or left alone to face stigma and bullying.</i></p>	<p>Thank you for this important observation. We have included more details in our paper – in particular in the Discussion – about the lack of political protection for HCWs.</p>
<p><i>It was interesting to know that social media was protective to some degree against stigma and bullying. I think this point needs more discussion.</i></p>	<p>Thank you for bringing this up – we have integrated this into the new paragraph that covers media and social media experience at the end of the Discussion section.</p>

<p><i>Limitations</i>  <i>Another limitation that should be added in my opinion is that analysis was done by region and not by country. Different countries in the same region may have different situations regarding the number of cases, government and public dealing with the pandemic, etc, which could be reflected on the issue of stigma and bullying.</i></p>	<p>Thank you for mentioning this point. While we do have country in our database (it was a required field), as mentioned in our Methods section “Any potentially identifying or stigmatizing details, including country, are deleted or masked.” We have included a statement in the Limitations section of the Discussion addressing this decision.</p>
<p><i>Another factor that was not evaluated is the socioeconomic variable of participants (family income, living in urban/rural areas). This could also affect the responses.</i></p>	<p>Correct, we did not directly ascertain SES. That said, we did measure ownership of material assets (home and car) as proxies. These assets were significantly associated with working in a health care setting but not related to bullying, which we mention in the Results and Discussion.</p>

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Antonio Baldassarre Careggi University Hospital, Florence, Italy
<b>REVIEW RETURNED</b>	07-Dec-2020

<b>GENERAL COMMENTS</b>	<p>The authors were able to address the suggestions provided by the reviewers appropriately.</p> <p>Ultimately, I suggest summarizing the statistical results in one or more tables in order to provide the reader with a complete overview of the results obtained and their statistical significance.</p> <p>After this step, I believe this contribution proposal deserves publication on BMJ Open.</p> <p>Congratulations, don't forget to send a copy of the work and the results to the survey participants!</p>
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<b>REVIEWER</b>	Ahmed Samir Abdelhafiz National Cancer Institute, Cairo University, Egypt
<b>REVIEW RETURNED</b>	09-Dec-2020

<b>GENERAL COMMENTS</b>	Thank you for making the changes required by reviewers. For me the manuscript can be accepted in the current format.
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## VERSION 2 – AUTHOR RESPONSE

Addition 13 Dec: We have referenced the Supplementary files numerically as requested.

Thank you for your review and suggestion about reducing our main table (Table 1). After discussing this with our team, we've reduced the table by removing several columns, leaving the most necessary data. We feel this table is much clearer and will reproduce well in publication. Since this data is new and previously unreported, we have retained the rows since that could stimulate other research questions among your readership. Thank you!