

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A Rapid, Application-Based Survey to Characterize the Impacts of COVID-19 on LGBTQ+ Communities Around the World: an observational study
AUTHORS	Adamson, Tyler; Hanley, Marguerite; Baral, Stefan; Beyrer, C; Wallach, Sara; Howell, Sean

VERSION 1 – REVIEW

REVIEWER	Fish, Jessica University of Maryland at College Park
REVIEW RETURNED	09-Sep-2020

GENERAL COMMENTS	<p>Thank you for the opportunity to review BMJopen-2020-041896. The authors provide a global assessment of the impact of COVID-19 on the health and economic wellbeing of LGBTQ people. Although the topic is a critically important one, I feel that there are several oversights that dampen my enthusiasm for the study in its current form.</p> <p>First and foremost, after reading the article, the title feels misleading. Given your sampling frame, I imagine the majority of your same are cisgender gay and bisexual men or men who have sex with men. Thus, using the "LGBTQ+" label is likely not an accurate representation of the sample (the characteristics of which aren't actually reported anywhere in the paper, so I'm basing this off of my knowledge of Hornet).</p> <p>Introduction The introduction lacks a specific focus on LGBTQ populations / sexual minority men (see comment above) and why they may be systematically and uniquely vulnerable to the social and health consequences of the COVID-19 pandemic and associated mitigation efforts. I would urge the authors to dedicate more of their introduction to framing these issues.</p> <p>Methods and Results I follow, somewhat, the logic related to no "controlling for confounding" as it relates to sociodemographic features of the sample, but I am particularly struck by the lack of adjustments or sensitivity analysis surrounding some indicator that captures the vast sociopolitical climates</p>
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	<p>represented in the study. Not only do these countries have vastly different experiences with and response to the COVID-19 pandemic, but they also vary appreciably in their acceptance and marginalization of LGBTQ people (factors that impact your variables of interest [e.g., economic precarity, mental health, health care access]). I think it would be helpful for the authors to address this in their methods, explicitly.</p> <p>Pg6, line 6-10: The authors repeat a sentence, verbatim.</p> <p>Pg6, line, 41: Typo, "lovely"</p> <p>Pg6, measures: Are the mental health measures from well-validated sources (K6? QoL?)?</p> <p>The results are a mix of introduction, results, and discussion, I would have liked to see a more traditional "results" section focused on the findings of the study. Please move statements introducing new content/concepts to the introduction, and comments about the findings to the discussion.</p> <p>I would have preferred the authors provide a table of results in lieu of the map representing the distribution of the sample. Also, I'm surprised the authors did not report the % of men in their sample (among other sociodemographic information, including sexual and gender identity). I suspect that the majority of the sample (over 75% were cisgender men), given the data collection platform. This is incredibly important for understanding and interpreting the results. These issues should also be explicitly addressed in the limitations. Generally, I think that there could be better reporting of sample demographic characteristics and results.</p>
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REVIEWER	Juster, Robert-Paul McGill University
REVIEW RETURNED	06-Dec-2020

GENERAL COMMENTS	<p>A rapid, application-based survey to characterize the impacts of COVID-19 on LGBTQ+ communities around the world: an observational study</p> <p>This rapid study assess about 13 thousand LGBTQ+ people from across the world and find evidence of resource needs, loneliness, anxiety, and safety concerns. I believe that this kind of work is very much needed and there are many people engaged in this work. The current manuscript would potentially be among the first large samples. While I support this work, I do have a number of concerns:</p> <p>1) While this work represents important evidence, the article is so light on any literature review or any real contextualization of the issues at hand. As is, this</p>
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	<p>manuscript reads far too superficially to really develop a rationale. The authors do admit the descriptive nature of the study, but something more is needed to set the stage.</p> <p>2) There is zero mention of sex. While Hornet’s users are mostly men, this is a very basic variable to include at least some mention of. If there are too few girls and women, then they should be removed and the paper should concentrate on men.</p> <p>3) There is no control group of heterosexual and cisgender individuals. This is a major limitation of this study that limits my overall enthusiasm. If the authors are unable to provide some contrast, would it be possible to say something about population-based findings for the instruments used to give some sense of how they compare to the findings from the current study? Otherwise, the message comes off as fairly obvious and speaks little to any kind of health disparity, which is definitely not the case.</p> <p>4) Some visualization of the study findings would strengthen the presentation of this manuscript. I very much appreciate the map of the world with representation of responses. But some additional visualization of study findings would be even better. I would encourage the authors to design this in a way that could be shared along various mediums like social media to share the study findings to academic and non-academic audiences.</p>
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REVIEWER	McKay, Tara Vanderbilt University
REVIEW RETURNED	07-Dec-2020

GENERAL COMMENTS	<p>This paper measures the impact of the COVID-19 pandemic on LGBTQ+ people from 132 countries using original survey data. The authors use the data to highlight a number of areas where we should expect deepening disparities -- jobs, health care access, mental health -- and call for policy action on these issues.</p> <p>Major Comments: The paper's aim is to describe the effects of the pandemic on the global LGBTQ+ community. There are clearly some substantial negative effects that the authors document here. However, because of the diversity of experiences -- not only among LGBTQ+ people pre- and post-pandemic but across whole countries and regions during the pandemic -- some reference points for pandemic effects would be useful. I appreciate that data may not be particularly available in some places and the authors know their data aren't likely to be representative. All the same, since statements about the global LGBTQ+ community are being made, perhaps some reference points can be included for some of the countries that make up the largest share of respondents or for global regions like SE Asia that are</p>
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highly represented. A subset of the authors here have previously done these kinds of comparisons compellingly when showing the disproportionate burden of HIV among MSM around the world, for example. Even something much less precise would be meaningful here given that the paper begins with a summary of disproportionate effects and makes multiple statements throughout about the particular effects on LGBTQ+ communities and the need to attend to them. Without any points of reference, the reader cannot assess whether there are disproportionate effects. While I appreciate that LGBTQ health disparities are real and concerning, many, many more do not, and the authors have not provided enough information to help those readers get to that same conclusion. Additionally, it's not clear that points of reference made for the US population (e.g., use of reference 5 in the Economics and Employment section) are likely to be the same for the global LGBTQ+ community. Some additional nuance is required here. At least a few large, regional surveys are available now that present mental health effects and economic effects. Individual countries, including some of the ones contributing a substantial share of the sample, also have some data available that could be used to stand in for regions where we are lacking a lot of precision, especially for easier things like job/wage loss for example. If the authors could show the gaps on these better documented things, more could be taken on faith for the things where comparable data are harder to come by.

There are places where the authors seem to be talking more about the US than other places, even though only a small percentage of the data are from Hornet users in the US (e.g., "As we seek to respond to the devastating blow this pandemic has dealt to...the traditional employment-based health insurance model, we must acknowledge and address the particular health and economic risk that already marginalized communities face."

The distribution of respondents by gender id is noticeably absent. Hornet's audience primarily targets gay men and other LGBTQ+ people who have sex with people who identify as men. Since the paper is descriptive, it's not clear why the authors would avoid including this information explicitly. Even if there are other identities among participants, is this mostly a paper about effects on LGBTQ+ folks who identify as male and/or have sex with people who identify as men? If it is, the language on "LGBTQ+ community" throughout should probably be swapped for a something that more closely reflects the sample. I suppose, in the end, my concern is that we are told very little about who is in this sample besides where they are and how old they are (young).

There are some framing issues in the access to care paragraph. For people who study health insurance, not having health insurance, having to buy private insurance,

	<p>and having employer-sponsored insurance are all pretty different outcomes. Having private insurance or employer-sponsored insurance is also not a good indicator of being underinsured or at risk of losing one's insurance. In several countries, people buy supplemental private insurance in addition to having basic government-provided insurance. I would recommend that this section focus on those without health insurance and expectations of losing health insurance. The 46% figure for "private/non-governmental/employer-provided" does not mean anything useful here without additional information. Alternatively, the authors could include information, if they have any, on inability to access HIV or hormone medications, any measurement of disruptions in care from the patient or the provider side, etc.</p> <p>There are findings noted in the discussion that are not present in the results body. E.g., "the quarter who were unable to see their HIV medical provider or were unsure whether they would lose their job as a result of the COVID-19 crisis." Additionally, some do not align: result: "50.1% (4,850/9,690) reported to not be receiving financial benefits from their government, despite need"; discussion: "the third who replied that they were not receiving assistance from their government but needed it". Please review this section for consistency.</p> <p>Is it necessary to state how many were very anxious versus a little anxious, very lonely versus a little lonely? This text reads poorly -- i.e., these figures would appear better in a table -- and the text could better highlight the issue that the authors are concerned about (high anxiety, high loneliness).</p> <p>The repeated calls for policy action without any policy suggestions is a missed opportunity.</p> <p>Minor Comments: Results, para 2: words missing, "to reduce potential sources were" insert "of bias" after sources?</p> <p>Is it 131 or 132 countries? Both are used.</p> <p>Abstract: "Most studies to date have focused on qualitative assessments with limited empiric quantitative study." This statement is not accurate in my opinion. There are not very many, to be sure, but most studies I have seen are quantitative and include an overlapping subset here -- MSM, HIV+ MSM, LGBTQ+ people from X country, etc. There are a handful from this time period now out in AIDS journals or on preprint sites.</p>
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<p>First and foremost, after reading the article, the title feels misleading. Given your sampling frame, I imagine the majority of your sample are cisgender gay and bisexual men or men who have sex with men. Thus, using the "LGBTQ+" label is likely not an accurate representation of the sample (the characteristics of which aren't actually reported anywhere in the paper, so I'm basing this off of my knowledge of Hornet).</p>	<p>The reviewer's comment is well received, and added more information about the demographics of the individuals who participated in the survey. It is important to note that 25% of Hornet users identify as non-gay.</p>
<p>The introduction lacks a specific focus on LGBTQ populations / sexual minority men (see comment above) and why they may be systematically and uniquely vulnerable to the social and health consequences of the COVID-19 pandemic and associated mitigation efforts. I would urge the authors to dedicate more of their introduction to framing these issues.</p>	<p>We agree, and have added more information to better frame the necessity of this work and its importance to combatting the impacts of COVID on LGBTQ communities</p>
<p>I follow, somewhat, the logic related to no "controlling for confounding" as it relates to sociodemographic features of the sample, but I am particularly struck by the lack of adjustments or sensitivity analysis surrounding some indicator that captures the vast sociopolitical climates represented in the study. Not only do these countries have vastly different experiences with and response to the COVID-19 pandemic, but they also vary appreciably in their acceptance and marginalization of LGBTQ people (factors that impact your variables of interest [e.g., economic precarity, mental health, health care access]). I think it would be helpful for the authors to address this in their methods, explicitly.</p>	<p>Since this was a descriptive analysis, we steered away from conducting more in-depth analysis, but instead grouped the data based on regions defined by the World Health Organization to account for the variation the reviewer mentions.</p> <p>We tried to contextualize further by including question regarding level of COVID-response</p>
<p>pg6, line 6-10: The authors repeat a sentence, verbatim.</p>	<p>Done</p>
<p>Pg6, line, 41: Typo, "lovely"</p>	<p>Done</p>
<p>Pg6, measures: Are the mental health measures from well-validated sources (K6? QoL?)?</p>	<p>Update which questions were used</p>
<p>The results are a mix of introduction, results, and discussion, I would have liked to see a more traditional "results" section focused on the findings of the study. Please move statements introducing new content/concepts to the introduction, and comments about the findings to the discussion.</p>	<p>Updated, thank you for your comment</p>
<p>I would have preferred the authors provide a table of results in lieu of the map representing the distribution of the sample. Also, I'm surprised the authors did not report the % of men in their sample (among other sociodemographic information, including sexual and gender identity). I suspect that the majority of the sample (over 75% were cisgender men), given the data collection platform.</p>	<p>We believe it's important to share the global-nature of the sample and hence, have kept the map, but have also added a demographics table.</p>

<p>This is incredibly important for understanding and interpreting the results. These issues should also be explicitly addressed in the limitations. Generally, I think that there could be better reporting of sample demographic characteristics and results.</p>	
<p>1) While this work represents important evidence, the article is so light on any literature review or any real contextualization of the issues at hand. As is, this manuscript reads far too superficially to really develop a rationale. The authors do admit the descriptive nature of the study, but something more is needed to set the stage.</p>	<p>At the time of the original submission, there was still very little known about the issues at hand given the ever-evolving nature of the pandemic. This work was intended to begin the conversation on the impact</p>
<p>2) There is zero mention of sex. While Hornet's users are mostly men, this is a very basic variable to include at least some mention of. If there are too few girls and women, then they should be removed and the paper should concentrate on men.</p>	<p>Please see the demographics table we added. However, we respectfully disagree that the paper should concentrate on men, as this was one of the first, if not, only quantitative data on hard to reach communities, such as transgender and nonbinary individuals.</p>
<p>3) There is no control group of heterosexual and cisgender individuals. This is a major limitation of this study that limits my overall enthusiasm. If the authors are unable to provide some contrast, would it be possible to say something about population-based findings for the instruments used to give some sense of how they compare to the findings from the current study? Otherwise, the message comes off as fairly obvious and speaks little to any kind of health disparity, which is definitely not the case.</p>	<p>We would respectfully disagree with the reviewer that in order to emphasize the importance of disparities in this community, a heterosexual, cis-gender control group is necessary to compare. However, we've added population-level results, as well as those that are region-specific.</p>
<p>4) Some visualization of the study findings would strengthen the presentation of this manuscript. I very much appreciate the map of the world with representation of responses. But some additional visualization of study findings would be even better. I would encourage the authors to design this in a way that could be shared along various mediums like social media to share the study findings to academic and non-academic audiences.</p>	<p>We agree with the reviewer's comments, and have developed additional visualizations that have since been widely shared since this manuscript was originally submitted in July.</p> <p>They have been taken up by several media outlets and we are in continued conversations with policy-makers and organizations serving these communities on the front-lines.</p>
<p>The paper's aim is to describe the effects of the pandemic on the global LGBTQ+ community. There are clearly some substantial negative effects that the authors document here. However, because of the diversity of experiences -- not only among LGBTQ+ people pre- and post-pandemic but across whole countries and regions during the pandemic -- some reference points for pandemic effects would</p>	<p>We agree with the reviewer's comment, but would like to add that at the date of this paper's original submission, little such data was available. The purpose of this paper was to provide a descriptive foundation of the data presented here, which was, at the time, one of the few datasets of this magnitude and</p>

<p>be useful. I appreciate that data may not be particularly available in some places and the authors know their data aren't likely to be representative. All the same, since statements about the global LGBTQ+ community are being made, perhaps some reference points can be included for some of the countries that make up the largest share of respondents or for global regions like SE Asia that are highly represented. A subset of the authors here have previously done these kinds of comparisons compellingly when showing the disproportionate burden of HIV among MSM around the world, for example.</p>	<p>global breadth that would. We never used the word "representative" as the authors are fully aware that the data here is not such, but we hoped that getting this data and information was of the utmost priority, and thus avoided any comparison analyses.</p> <p>However, we have attempted to include additional information to further contextualize regional differences.</p>
<p>Even something much less precise would be meaningful here given that the paper begins with a summary of disproportionate effects and makes multiple statements throughout about the particular effects on LGBTQ+ communities and the need to attend to them. Without any points of reference, the reader cannot assess whether there are disproportionate effects. While I appreciate that LGBTQ health disparities are real and concerning, many, many more do not, and the authors have not provided enough information to help those readers get to that same conclusion.</p>	<p>We are not entirely sure what the reviewer is looking for with this comment. Something less precise in regards to?</p>
<p>Additionally, it's not clear that points of reference made for the US population (e.g., use of reference 5 in the Economics and</p> <p>We's contributing a substantial share of the sample, also have some data available that could be used to stand in for regions where we are lacking a lot of precision, especially for easier things like job/wage loss for example. If the authors could show the gaps on these better documented things, more could be taken on faith for the things where comparable data are harder to come by.</p>	<p>In order to account for regional differences, we have broken up and grouped the data by WHO regions, in order to better contextualize the data with other similar areas.</p>
<p>There are places where the authors seem to be talking more about the US than other places, even though only a small percentage of the data are from Hornet users in the US (e.g., "As we seek to respond to the devastating blow this pandemic has dealt to...the traditional employment-based health insurance model, we must acknowledge and address the particular health and economic risk that already marginalized communities face."</p>	<p>We've worked to expand the scope of the paper to speak more broadly</p>
<p>he distribution of respondents by gender id is noticeably absent. Hornet's audience primarily targets gay men and other LGBTQ+ people who have sex with people who identify as men. Since the paper is descriptive, it's not clear why the authors would avoid including this information explicitly. Even if there are other identities among participants, is this mostly a paper about effects on LGBTQ+ folks who identify as male and/or have sex with people who identify as men? If it is, the language on "LGBTQ+ community" throughout</p>	<p>We've updated our tables and provided additional demographic information</p>

<p>should probably be swapped for a something that more closely reflects the sample. I suppose, in the end, my concern is that we are told very little about who is in this sample besides where they are and how old they are (young).</p>	
<p>There are some framing issues in the access to care paragraph. For people who study health insurance, not having health insurance, having to buy private insurance, and having employer-sponsored insurance are all pretty different outcomes. Having private insurance or employer-sponsored insurance is also not a good indicator of being underinsured or at risk of losing one's insurance. In several countries, people buy supplemental private insurance in addition to having basic government-provided insurance. I would recommend that this section focus on those without health insurance and expectations of losing health insurance. The 46% figure for "private/non-governmental/employer-provided" does not mean anything useful here without additional information. Alternatively, the authors could include information, if they have any, on inability to access HIV or hormone medications, any measurement of disruptions in care from the patient or the provider side, etc.</p>	<p>We accept the reviewer's comment and have added additional information regarding disruptions to the accessibility of HIV prevention strategies.</p> <p>As for the variation in insurance models, we've attempted to contextualize this further by stratifying the information by region.</p>
<p>There are findings noted in the discussion that are not present in the results body. E.g., "the quarter who were unable to see their HIV medical provider or were unsure whether they would lose their job as a result of the COVID-19 crisis." Additionally, some do not align: result: "50.1% (4,850/9,690) reported to not be receiving financial benefits from their government, despite need"; discussion: "the third who replied that they were not receiving assistance from their government but needed it". Please review this section for consistency.</p>	<p>Reviewed and updated, thank you for your comment.</p>
<p>Is it necessary to state how many were very anxious versus a little anxious, very lonely versus a little lonely? This text reads poorly -- i.e., these figures would appear better in a table -- and the text could better highlight the issue that the authors are concerned about (high anxiety, high loneliness).</p>	<p>Updated and created tables to better highlight the information</p>
<p>Results, para 2: words missing, "to reduce potential sources were" insert "of bias" after sources?</p>	<p>Updated, thank you</p>
<p>The repeated calls for policy action without any policy suggestions is a missed opportunity.</p>	<p>We provide some general policy recommendations that could be applied broadly</p>

Is it 131 or 132 countries? Both are used.	Corrected.
Abstract: "Most studies to date have focused on qualitative assessments with limited empiric quantitative study." This statement is not accurate in my opinion. There are not very many, to be sure, but most studies I have seen are quantitative and include an overlapping subset here -- MSM, HIV+ MSM, LGBTQ+ people from X country, etc. There are a handful from this time period now out in AIDS journals or on preprint sites.	At the time of its submission in July 2020, this data was seriously limited, we acknowledge that this is no longer the case.

VERSION 2 – REVIEW

REVIEWER	Juster, Robert-Paul McGill University
REVIEW RETURNED	06-Feb-2021

GENERAL COMMENTS	The authors have addressed my comments.
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REVIEWER	McKay, Tara Vanderbilt University
REVIEW RETURNED	02-Mar-2021

GENERAL COMMENTS	<p>In my previous review, I noted concerns around the diversity of LGBTQ+ people's experiences around the world, unclear sample distribution across place and demographic characteristics, use of health care variables, lack of policy recommendations, and some minor alignment/clarification issues.</p> <p>The authors have added tables that clarify the sample distribution across place and demographic characteristics, which is very helpful given uneven response and exposure to the survey.</p> <p>The authors now include region as a variable in analyses to capture general differences in the experiences of LGBTQ+ people across countries.</p> <p>The authors now include additional detail in analyses around concerns about losing health insurance during the pandemic. This captures more nuance and is also adjusted by region, as above.</p> <p>The authors have added an extended discussion of the key levers/policy gaps for addressing concerns identified in the findings for different LGBTQ+ population groups.</p> <p>Please note in revision, line 170, "COVID-10"</p>
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