Author's response to reviews

Title: Mental health impacts of racial discrimination in Australian culturally and linguistically diverse communities: A cross-sectional survey

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Author's response to reviews: see over
Dear Ms. Aguirre,

Re: 5544828221130234 - Mental health impacts of racial discrimination in Australian culturally and linguistically diverse communities: A cross-sectional survey

Thank you for your advice regarding our manuscript, and our thanks as well to the reviewers for their insightful and useful comments. We have responded to the reviewers as outlined below and believe the manuscript is much improved as a result.

Referee 1:
The strength of the paper is the inclusion of so many different ethnic/racial/religious minority groups in one sample. This permits the authors to address issues of intersectionality, as they mention. But the authors offer only a very brief discussion of this issue.... It would have also been important to understand the exact nature of the intersectionality – very little information is presented about difference among groups in sociodemographic characteristics. (e.g., have some of the immigrant groups been in Australia for longer than others? Does this affect their experiences of discrimination?)

Increased discussion regarding intersectionality (lines 142-155) as well as the history of the different groups and their histories of discrimination (lines 150-152; 156-165; 477-478, 582-593) has been added.

It would have been useful to have some information on the nature of the different groups included in the study, including a description of their prevalence and a brief description of their relationship to the majority culture. Each of these groups has faced prejudice. Understanding the reasons driving the stereotypes about their group (i.e., their relative status or the degree to which they compete with more mainstream groups) would be helpful.

Increased information has been added regarding the different groups and their experiences of racism (lines 150-152; 156-165; 477-478, 582-593).

The scientific literature on the visibility of stigmatizing conditions is not addressed adequately. The theoretical framing of these issues is needed to support the value of the data.

A discussion regarding stigma, race and visibility has been added at lines 168-178.

The prevalence rates of reports of discrimination vary substantially across studies depending on whether investigators are asking about relatively major incidents vs. more subtle episodes of race-based exclusion or rejection. Some discussion of the nature of the questions and the level of discrimination assessed would be useful.

The results and discussion regarding the intensity and types of the racist experiences have been expanded in lines 367-369 and 467-470. However, the purpose of the study was to consider the associations between experiences of racism and mental health outcomes, rather than to determine the prevalence of racism for these populations. This is acknowledged in the ‘Limitations’ section (lines 654-658).
More detail on the ways in which the questions were framed for the participants would be helpful. This would help readers understand the degree to which the participants were considering issues related to subtle microaggressions versus episodes of more blatant discrimination.

An additional file has been added to illustrate the tool used for asking respondents about their experiences (Figure 1).

It is not clear that these different items (i.e., the different settings) are truly distinct. No information is provided on the degree to which these venues of exposures are intercorrelated. For example, there are several items assessing discrimination in places which could be considered public settings (i.e., stores, public places, transportation), other reflect discrimination in official settings (i.e., government, etc) in which equal treatment might be expected.

The surveys were implemented to appropriately identify and prioritise specific settings for targeting as part of an associated anti-racism initiative (amended text at lines 182-184). The settings chosen therefore reflect spaces that could be amenable to intervention and were selected from surveys that have been used across a number of studies both in Australia and overseas. During the consultation process undertaken in each community as part of the development phase, communities indicated that the survey settings were appropriate and understood the settings as being distinct. The training for the community workers who administered the surveys covered the surveys in depth and the evaluation team were in frequent contact with the workers throughout the data collection process. There was no indication that respondents felt that settings overlapped or were insufficiently distinct.

The authors perform many statistical tests which are uncorrected, and it is unclear if the outcomes would remain significant if they were corrected using Bonferroni adjustment or some other method. If items cohere into a one or more common factors, it would help in reducing the number of analyses performed. Bonferroni correction tends not to be frequently used in descriptive analyses, and in fact there has been some criticism of using Bonferroni correction other than in some limited circumstances which do not apply here (Perneger, 1998). In our study we are focussed on the impact of exposure to racism, and in particular identifying settings in order to prioritise interventions. While this approach does lead to multiple tests, the issue of the significance of any particular test is less important as racism should not be occurring in any of the settings. We have provided all the appropriate statistical information to enable any interested readers to undertake this analysis.

To determine if there are unique effects associated with a particular venue in which discrimination occurred (e.g., in analyses in which they are examining the relationships of the different venues to distress), the authors compare the levels of significance of the OR associated with the different venues. (The same strategy is used to examine the effects of different coping strategies on distress). This is not the best approach. Regression analyses with multiple venues predicting the outcome would be a more appropriate strategy for determining if there are unique effects of any particular kind of discrimination in comparison to others. This would be difficult to do with so many different venues, so considering ways of combining items would be useful.

The consideration of the effects of experiencing discrimination in specific settings was undertaken in order to inform priority-setting and development of interventions. This included determining which individual settings for discrimination were significantly associated with increased psychological distress, rather than considering the effects of discrimination within multiple venues. The use of regression analyses with multiple venues runs the risk of having the effect of high-discrimination sites being masked. Further explanation regarding the purpose of the survey has been added (lines 182-184).
There were also some missed opportunities. For example, the authors report gender differences in overall exposure and in the intensity of exposure, but it also would have been useful to determine if there were gender differences in the types of settings in which discrimination was experienced. MANOVA analyses with the different settings would be one possible way of examining these issues.

The purpose of the research was to support the development of subsequent anti-racism interventions that appropriately targeted individual settings and potential perpetrators within those settings. We were therefore primarily concerned with understanding the differences in exposure between settings and the impact of exposure within particular settings, rather than analysing differences in exposure between demographic groups within particular settings. However, we did do some further analysis regarding differences in exposure between demographic groups and found few significant results, other than those reported in the manuscript. Further explanation regarding the purpose of the survey has been added (lines 182-184).

Because it is not a true epidemiological or population based setting, it is difficult to evaluate how representative the reports of the frequency of exposure are. Therefore, analyses which examine the frequency with which different types of discrimination are reported are less valuable than analyses which examine predictors of these effects within the sample (i.e., degrees of visibility or location of effects, etc.).

Yes, the study was designed to consider the associations between experiences of racism and mental health outcomes, rather than to determine the prevalence of racism for these populations. The recruitment methods reflect this, as they were not designed to develop a representative sample. This is discussed in the ‘Limitations’ section (lines 654-658), and further discussion regarding the purpose of the research has been included (lines 182-184). We therefore agree that analyses focusing on predictors of exposure are more relevant than details on the frequency of exposure per se.

The conclusion that individuals can do little to offset the impact of discrimination is not reasonable given the data. It could also be the case that different groups can use different strategies successsfully. No tests of moderation (e.g., by gender or religion or ethnic group or age) of the effects of coping on distress were performed. Not all possible coping strategies were assessed. It is clear that community/nationwide efforts to reduce discrimination are the primary and essential intervention, but that does not mean that people can do almost nothing to help themselves.

We thank the reviewer for their comment and agree that our initial conclusion was somewhat excessive. This has been amended in the ‘Discussion’ section (lines 617-618) and in the abstract (lines 71-73).

Referee 2:
The question posed is fine but I believe the title is a misnomer. The Aboriginal peoples and Torres Strait Islanders and combinations of these groups is also a minority group.

In the visibility status again Aboriginal is not mentioned. p 10. Aboriginal and Maori is not described and self identification is not reported with these definitions. I am wondering if this was because it falls into ‘other’ or was not addressed.

While Aboriginal Australians are also vulnerable to racism, the experiences of CALD and Aboriginal communities are often considered separately, due to differing needs, contexts and histories. A separate survey was therefore designed to assess experiences of racism in Aboriginal communities, and those findings are not included in this manuscript. Additional text has been included to address this (lines 185-
The title of the manuscript has therefore been changed to **Mental health impacts of racial discrimination in Australian culturally and linguistically diverse communities.**

Yes the discussions and conclusions are well supported by the data but the conclusion could possibly be stronger in the links to higher occurrences in the workplace for example, but it is adequate. The discussion and conclusions regarding discrimination in employment and education settings has been expanded at lines 573-593 and 693-696.

I would like to know as a reader the validity of Kessler with minority groups, as it is a westernised testing methodology. I think this should be listed as a limitation, even though some interpreters were available this would also possibly lead to interviewer bias but has not been stated. The Kessler scales have been tested for reliability and validity across a number of populations in various studies, including Hong Kong adolescents (Chan et al, 2013), and Dutch, Moroccan and Turkish respondents (Fassaert et al, 2009). In each of these studies, the scales have been demonstrated to have high validity and reliability. A version of the Kessler scales has also been used by the Australian Bureau of Statistics (ABS) in Aboriginal Australian populations. Text regarding the validity of the Kessler scales and interviewer bias have been added to the limitations section at lines 631-638 and 654-658.

I think the conclusion in the abstract or closing paragraph needs to link more accurately with the conclusion in the body, it is not reflective. The abstract has been amended to better reflect the conclusion in the body of the text (lines 67-73).

**Editorial request:**

*Ethics: Research involving human subjects (including human material or human data) that is reported in the manuscript must have been performed with the approval of an appropriate ethics committee. Research carried out on humans must be in compliance with the Helsinki Declaration ([http://www.wma.net/en/30publications/10policies/b3/index.html](http://www.wma.net/en/30publications/10policies/b3/index.html)). A statement to this effect must appear in the Methods section of the manuscript, including the name of the body which gave approval, with a reference number where appropriate.*

This has been added at lines 342-345.

Thank you again for your time, consideration of our manuscript and the opportunity to respond to the reviewers. Please do not hesitate to contact me if you have any further questions or comments.

Warmest regards,

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