PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Reporting of data on participant ethnicity and socioeconomic status in high-impact medical journals: a targeted literature review
AUTHORS	Buttery, Sara; Philip, Keir; Alghamdi, Saeed; Williams, Parris; Quint, Jennifer; Hopkinson, Nicholas

VERSION 1 – REVIEW

REVIEWER	Vidoni, Eric University of Kansas Medical Center
REVIEW RETURNED	07-Jun-2022

GENERAL COMMENTS	This is a straight forward, descriptive assessment of recent reporting on ethnicity/race in medical research. The work is timely and important. I have only a few comments that may help readers. 1) I would encourage the authors to review the following paper. I have found it to be extremely helpful in framing my own discussion of race in manuscripts. Critical to this manuscript, I would draw attention to several of the suggested practices: a. Defining race (or in this case ethnicity). And I think defining sex vs. gender too. b. Naming racism (or ethnism) and sexism. As a USA-based reviewer, race/ethnicity cannot be divorced from racism. (I guess I cannot speak to the experience of other countries and cultures, so maybe this critique is less applicable). I think it's important that we be explicit that the very problem this paper is calling out, medical racism/ethnism/sexism, can be implicit such as the failure to include people of color or women or those from low SES (or the assumption that a Euro-centric sample will generalize to health for all). Or it can be explicit, as in any of the well known experimentation and exploitation on people of color and women. But let's name the problem Also, I recognize that a review like that cannot change how a reported study defined race/ethnicity or sex/gender. But I think it's worth providing your own definition and your interpretation of how the studies you report on did it. 2) I would like to see a table of the terms studies and categories that you encountered in the 100 papers. I think it would be helpful to readers since you talk about standardization. I also think it would be important to see all the measures you encountered for SES proxies. 3) Can you talk about the decision making process for what constituted an SES variable? Was it consensus? What if one

reviewer thought a variable was an SES proxy and one didn't?

4) Please justify the use of only 100 papers. It's a big effort, I realize, but also seems low relative to the total number of publications.

5) Can you detect any change in this over time? I'm not clear how far your review goes back but it would be very interesting to see if this is improving over time.

REVIEWER	Routen, Ash NIHR Applied Research Collaboration East Midlands, Diabetes Research Centre
REVIEW RETURNED	29-Jun-2022

| GENERAL COMMENTS | Thank you for the opportunity to review this interesting paper on reporting of ethnicity and SES in high impact medical journals. I have a number of concerns which require addressing.

Among the ten most recent articles published in the selected journals there is the potential that this may include original research that focuses solely on a single ethnic group (e.g. temporal trends in anxiety in Bangladeshi men) – were there any such instances and if so how did you code these papers ethnicity reporting?

Likewise 20/100 included studies were laboratory based – would you expect or would it necessarily be pertinent to report SES in all of these cases? In which case the lack of reporting of SES may be justifiable.

I appreciate this would require more work but it would be useful if you were able to extract further information on whether the papers reported on umbrella ethnic groups (e.g. South Asian) or provided further granularity (i.e. broke down South Asian to Indian, Bangladeshi etc.).

You mention low level of reporting in controlled clinical trials in the Discussion. It would be useful to cross-tabulate the reporting of ethnicity and SES against the study type, and country/continent – this may help identify areas to target for improvement.

I could not interpret the supplementary information subsequent to the flow diagram as the columns had merged and formatting appears to have misaligned.

Other than pragmatism, is there a rationale as to why the most recent 10 articles, as opposed to 25, 50, or 100, were included in this review? You mention different methodological approaches in the Discussion, it would be useful to provide an example of such alternatives.

I agree with your call for standardised reporting standards. You may wish to refer to recent work (below) focused on ethnicity reporting which has highlighted the need for this. It may also be useful to suggest inclusion of a range of under-served groups in the development of data collection and reporting protocols.

Routen A, Akbari A, Banerjee A, Katikireddi SV, Mathur R, McKee M, Nafilyan V, Kamlesh K (2022) Strategies to record and use ethnicity information in routine health data. Nature Medicine, . DOI: https://doi.org/10.1038/s41591-022-01842-y |

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Dr. Eric Vidoni, University of Kansas Medical Center
Comments to the Author:
This is a straight forward, descriptive assessment of recent reporting on ethnicity/race in medical research. The work is timely and important.

Many thanks.

I have only a few comments that may help readers.

1) I would encourage the authors to review the following paper. I have found it to be extremely helpful in framing my own discussion of race in manuscripts. Critical to this manuscript, I would draw attention to several of the suggested practices:

a. Defining race (or in this case ethnicity). And I think defining sex vs. gender too.
b. Naming racism (or ethnism) and sexism.

Thank you for this suggestion. Unfortunately, a link/reference for the paper suggested appears to be missing, so it is not possible for us to review its content in relation to our study.

As a USA-based reviewer, race/ethnicity cannot be divorced from racism. (I guess I cannot speak to the experience of other countries and cultures, so maybe this critique is less applicable). I think it's important that we be explicit that the very problem this paper is calling out, medical racism/ethnism/sexism, can be implicit such as the failure to include people of color or women or those from low SES (or the assumption that a Euro-centric sample will generalize to health for all). Or it can be explicit, as in any of the well known experimentation and exploitation on people of color and women. But let's name the problem.

We agree that it is useful to discuss potentially contributory factors to the omissions identified. We outlined a number of factors and agree clearly stating that racism, whether explicit or implicit, should be added. However, as our study focused on identifying if reporting of these variables remained an issue and did not specifically investigate the reasons for reporting/non-reporting of these variables, we have presented a range of potentially contributing factors. Accordingly, we have added the following text: 'Non-reporting of ethnicity (or race) and SES data may also result from explicit or implicit racism, or other forms of *discrimination such as that based on SES, which could include failing to appreciate the relevance of these factors to the generalisability of findings.'*

Also, I recognize that a review like that cannot change how a reported study defined race/ethnicity or sex/gender. But I think it's worth providing your own definition and your interpretation of how the studies you report on did it.

We have added the following to clarify how we defined variables of interest in the context of this study. 'For the purpose of this study ethnicity (or race) was defined as variables explicitly stated by the authors as 'ethnicity', 'ethnic group', or 'race', 'racial group' or terms such as '% white European .' Sex or gender were considered to have been reported if specifically stated as such, or % male/female/women/men/non-binary/other gender were reported.

We decided to focus specifically on if rather than how these variables are defined, as the related question of how to define these variables is a large and complex issue in itself which requires careful

and considered in-depth discussion, which would not be possible as a subsection of the study we present, and would require different methodological approaches.

2) I would like to see a table of the terms studies and categories that you encountered in the 100 papers. I think it would be helpful to readers since you talk about standardization. I also think it would be important to see all the measures you encountered for SES proxies.

All of the terms assessed in the studies are included in the 'Supplementary Data' file tables, which we have reformatted to make it clearer and referenced it more clearly in the text.

3) Can you talk about the decision making process for what constituted an SES variable? Was it consensus? What if one reviewer thought a variable was an SES proxy and one didn't?

Variables were considered to be indicators of SES if they were explicitly stated as such in the studies reporting them, or if not explicitly stated in the study itself, variables that might be considered SES indicators were discussed between researchers and included or excluded based on consensus opinion. Given the potential degree of subjectivity related to this approach we have provided the specific terms used by included studies in the supplementary data. The agreed approach was to take a more inclusive approach, so that if these variables were found to be infrequently reported, such findings would not be dismissed as relating to overly stringent inclusion criteria.

4) Please justify the use of only 100 papers. It's a big effort, I realize, but also seems low relative to the total number of publications.

We arrived at 100 papers as we felt ten papers meeting the inclusion criteria from the ten highest impact journals provided a good variety of journals and an adequate number of papers from each to get a reasonably representative sample of their original research papers. In order to identify these 100 papers, a total 650 publications, as many of the publications in these journals did not meet the inclusion criteria (i.e. editorials, comments, news articles etc.), the 550 articles that were reviewed but not included are described in table 3, which is now more clearly referenced in the main text.

5) Can you detect any change in this over time? I'm not clear how far your review goes back but it would be very interesting to see if this is improving over time.

Our sampling method means it wouldn't be appropriate to compare reporting over time. However, we have discussed how other studies have identified this and related issues previously over the last few decades. Now that our study has identified that this is still an issue, we have now suggested that further research could specifically consider trends overtime.

Reviewer: 2
Dr. Ash Routen, NIHR Applied Research Collaboration East Midlands
Comments to the Author:
Thank you for the opportunity to review this interesting paper on reporting of ethnicity and SES in high impact medical journals. I have a number of concerns which require addressing.

Among the ten most recent articles published in the selected journals there is the potential that this may include original research that focuses solely on a single ethnic group (e.g. temporal trends in anxiety in Bangladeshi men) – were there any such instances and if so how did you code these papers ethnicity reporting?

Our sample did not include any original research that reported only a single ethnic group was recruited. However, there were studies that including only one sex, for example 'Trends in Age at Natural Menopause and Reproductive Life Span Among US Women, 1959-2018 (doi: 10.1001/jama.2021.0278)'. Given that it was clearly stated in the manuscript that all the participants were women, and menopause was the topic of study, we coded this as having reported the sex of the participants, despite sex or gender not being specifically listed in the participant characteristics table of the results.

Likewise 20/100 included studies were laboratory based – would you expect or would it necessarily

be pertinent to report SES in all of these cases? In which case the lack of reporting of SES may be justifiable.

We agree the relevance of SES might be less apparent in relation to certain types of studies, including laboratory studies, however the ICMJE guidelines referenced highlight that the relevance of demographic variables is not always known at the point of study design, so researchers should aim to include relevant demographic variables into all study types. Importantly, we only included laboratory studies in which some participant/donor characteristics were reported (mostly age and sex), and as such if it was felt relevant to report age and sex, it is not immediately apparent why donor SES would not also be relevant given the impact of SES on environmental exposures.

I appreciate this would require more work but it would be useful if you were able to extract further information on whether the papers reported on umbrella ethnic groups (e.g. South Asian) or provided further granularity (i.e. broke down South Asian to Indian, Bangladeshi etc.).

We have now reported the specific terms/response options used in each of the studies in table 2 and table 4 Supplementary Material.

You mention low level of reporting in controlled clinical trials in the Discussion. It would be useful to cross-tabulate the reporting of ethnicity and SES against the study type, and country/continent – this may help identify areas to target for improvement.

We have displayed the study types in Table 2 of the supplementary material however given that only a small number of certain studies types are included, we are hesitant to present the data in subgroups as suggested given the potential for misinterpretation.

I could not interpret the supplementary information subsequent to the flow diagram as the columns had merged and formatting appears to have misaligned.

Thanks for highlighting this. We have reformatted and edited the data included in the table to make it clearer for readers in tables 2, 3, and 4.

Other than pragmatism, is there a rationale as to why the most recent 10 articles, as opposed to 25, 50, or 100, were included in this review? You mention different methodological approaches in the Discussion, it would be useful to provide an example of such alternatives.

The primary reason was pragmatism, aiming to include 10 journals with a reasonably sized sample from each. We wanted to have an equal number of articles from the selected journals included, and given substantial differences in the number of original research papers published between journals, keeping to ten per journal also ensured all included papers were published within a 4 month window. If we had included 100 papers per journal, the sample from some journals might be 2 months, while others nearer 2 years, which could complicate interpretation given the potential for changing levels of reporting over time.

I agree with your call for standardised reporting standards. You may wish to refer to recent work (below) focused on ethnicity reporting which has highlighted the need for this. It may also be useful to suggest inclusion of a range of under-served groups in the development of data collection and reporting protocols.

Routen A, Akbari A, Banerjee A, Katikireddi SV, Mathur R, McKee M, Nafilyan V, Kamlesh K (2022) Strategies to record and use ethnicity information in routine health data. Nature Medicine,
. DOI: https://doi.org/10.1038/s41591-022-01842-y

Khunti K, Routen A, Banerjee A, Pareek M (2020) The need for improved collection and coding of ethnicity in health research. Journal of Public Health, (43(2)). DOI: 10.1093/pubmed/fdaa198

Many thanks for these suggestions and references which we have now included.

REVIEWER	Vidoni, Eric University of Kansas Medical Center
REVIEW RETURNED	18-Jul-2022

GENERAL COMMENTS	None

REVIEWER	Routen, Ash NIHR Applied Research Collaboration East Midlands, Diabetes Research Centre
REVIEW RETURNED	18-Jul-2022

GENERAL COMMENTS	Thank you for addressing my concerns I have no further comments.