PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Qualitative exploration of socio-cultural determinants of health inequities of Dalit population in Dhaka City, Bangladesh
AUTHORS	Kabir, Ashraful; Maitrot, Mathilde; Ali, Ahsan; Farhana, Nadia; Criel, Bart

VERSION 1 – REVIEW

REVIEWER	Mohammad Rifat Haider Arnold School of Public Health, University of South Carolina, USA
REVIEW RETURNED	10-Apr-2018

GENERAL COMMENTS	Health inequality among different socioeconomic and marginalized groups is growing all around the world. To reduce the gap and address the issue adequately, identification of different socioeconomic and political factors is very important. In this aspect I think this is an important study. I have a few comments/questions that I think should be addressed in the manuscript. Introduction 1. Introduction part was coherent and fairly done all along. However, it would be great if you can provide some empirical evidences of Dalit population health disparities in terms of some health indicators with relevant citation. Methodology 2. In second paragraph, you said that "Combined with structural elements, the individual socio-economic context 'structural determinant' is constructed". What do you mean by structural elements? 3. In sampling strategy part, you said that "Using several data collection tools we achieved maximum variation within the sample"? What are the tools you had used to get the maximum variation? 4. To get a high degree of iteration and flexibility in order to build coherence and maximise the validity of the data you did snowball sampling to select individuals who had experienced discrimination of a specific nature or means? How would you ensure maximum variation (see question 4) of data if you select particular individual only? 5. If you select only the individuals who had experienced discrimination of specific nature can you generalize the situation even for the two sweeper communities you have selected for the study (as your sample size is small but the two communities have approx.1000 families)?

	6. Can you please describe the participants of the study based on inclusion and exclusion criteria? Also provide more information of the sampling strategy. 7. How you have selected key informants and FGDs members? 8. Data collection procedure was well written. 9. During finalization of themes and concepts did you consult with expert or knowledgeable person? 10. You mentioned you had considered possible harms and benefits in the consent form. Can you think of any possible harm for the participant while conducting the study? Results: 11. You had done 5 FGDS. However, you did focus group discussion with Ganaktuli men community twice. What was the reason for doing FGD with similar group (in terms of age and location) twice? 12. Line 308-315: Were the diseases common for the Dalit population or for the genral population? Please refer citation. 13. You discussed about space and unhygienic condition of the Dalit population under the "Space and Power" theme but did not give much information about power. Why is that? 14. Please provide relevant citation for line 346-347. 15. In line 386 you said "the labour market both dynamically excludes and adversely includes Dalits by restricting their social and occupational mobility". What did you mean by adversely inclusion of Dalits Discussion: 16. How did you measure that the health inequalities of Dalits were severe (Line 587)? 17. What did you mean by material determinants of health (Line 592)?

REVIEWER	Ramesh Govindaraj The World Bank, Washington, DC, USA
REVIEW RETURNED	10-Apr-2018

GENERAL COMMENTS	The paper entitled "*Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh*" examines the socioeconomic, cultural and political status of the Dalit community in Dhaka city, as well as their access to health services and their health outcomes. The qualitative study's basic premise is that, consistent with the tenets of WHO's Social Determinants of Health Framework proposed by in 2010, the health inequalities experienced by the Dalits are a direct consequence of their socioeconomic and political standing in Bangladeshi society. Therefore, the authors contend that policies and programs to address their health needs need to be holistic, rather than merely aimed at providing clinical services to these groups. The authors deserve credit for focusing on the Dalits in Bangladesh, a sub-population about whose health situation and needs not much is known, and on which the literature is limited. The use of the Social Determinants of Health construct is also appropriate in this context, and provides a potentially powerful construct for the analysis. Given that they tackle a relatively neglected subject, the authors have an opportunity to present a robust analysis that could lead to substantive policy action directed at Dalits in Bangladesh. Unfortunately, they fail to do this convincingly.

	The findings of the study are based on a combination of 14 in-depth interviews and five focus group discussions with Dalit men and women, and seven key informant interviews with community Leaders and “NGO workers”. Aside from the small sample size, and the fact that the study is situated entirely in Dhaka (whose context is very different from even that of other major urban center in Bangladesh) - limitations that the authors’ themselves acknowledge – the study also suffers from other major shortcomings. The paper gives no indication as to whether the health conditions and inequities faced by the Dalits are any different from that of other poor urban slum-dwellers in Bangladesh. In other words, is there evidence that the Dalits are uniquely disadvantaged in terms of healthcare access and/or health outcomes (or even some of the socioeconomic determinants) compared to non-Dalit populations (particularly those from the lower socioeconomic strata) living in Bangladesh’s urban slums? Are there non-Dalits living in the slums where the two Dalit groups studied reside, and are there any differences between them and the Dalits vis-à-vis the study variables? Without such validation, the argument that the (claimed) association between the socioeconomic determinants and the health access/outcomes of Dalits is a “cause and effect” relationship is hard to sustain. In addition, the authors fail to present independent validations of the many assertions made regarding the Dalits’ health status, the discrimination they face from policy makers, teachers and healthcare providers, etc., relying entirely on the interviews with the Dalits themselves or with the NGO working closely with them, - all which at least have the potential to be biased. Since the authors do not append the questionnaires used for the interviews and focus group discussions, it is difficult to gauge the appropriateness of the questions posed to the interviewees, and the extent to which reliable and unbiased conclusions can be drawn from their responses. The authors also use technical terms (e.g. “social positioning” of Dalits,“stigmatizing behavior” and “discriminatory attitude”) without defining them precisely, as we would expect in a formal study published in BMJ Open. Finally, the two communities described in the study are (i) next to a major hospital and (ii) next to tanneries, respectively. The occupations and risk factors for these two communities are different – however, the study treats the two groups as homogenous entities under the broad rubric of “Dalits”. Were there any differences in the responses elicited from these two groups, either on the determinants or the outcomes of interest (although, admittedly, the small sample size might mitigate against the identification of significant differences)? Overall, the analysis would be strengthened considerably by the authors providing additional data/evidence reinforcing the claims that the Dalits indeed have poorer healthcare access and worse health outcomes (e.g. from the national health statistics or specialized surveys like the Bangladesh Urban Health Survey, and – if these data are not available – from sources such as household/individual health records), suffer from greater policy neglect or discrimination regarding healthcare, education, employment opportunities, and land rights (e.g. through a more thorough review/analysis of government policies, particularly as they apply to disadvantaged and

	vulnerable populations), or face more discrimination than non-Dalits and, in particular, other slum dwellers in Bangladesh (e.g. through other interviews with educational institutions, health care providers, and from employers of the Dalits, if not through hard data on enrollment, attendance, and the like). As an exploratory study on Dalits, it would also be interesting, among other things, to find out more about their health and health seeking behavior. For example, do the Dalits access alternate health care providers, e.g. in the private or informal sector, or do they forgo care altogether? How do they manage their "large" out-of-pocket health expenditures – does this push the households further into poverty? Are there examples of Dalits breaking out of the vicious cycle of "discrimination" leading to poor health outcomes – if so, how has this been accomplished, and what are the implications for the Dalit community as a whole? If such information can be accessed by the authors, they might want to present them, in addition to addressing the issues raised above, in what would be a significantly revised submission. In its present form, however, the paper does not merit publication in BMJ Open.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Mohammad Rifat Haider
Institution and Country: Arnold School of Public Health, University of South Carolina, USA
Competing Interests: None declared.

Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh

Health inequality among different socioeconomic and marginalized groups is growing all around the world. To reduce the gap and address the issue adequately, identification of different socioeconomic and political factors is very important. In this aspect I think this is an important study.

I have a few comments/questions that I think should be addressed in the manuscript.

Introduction

1. Introduction part was coherent and fairly done all along. However, it would be great if you can provide some empirical evidences of Dalit population health disparities in terms of some health indicators with relevant citation.

Response: Thank you for this comment. We added a paragraph to the introduction indicating the health status of Dalit as follows.

'Nationally representative survey data on Dalit health inequality is unavailable. As Nagorik Uddyog (Bangladesh Dalit and Excluded Rights Movement) notes:

"Health surveys and research programmes undertaken with respect to the 'public health situation' in the country do not pay special attention to the child and maternal health conditions in the colonies and

settlements where Dalit communities live. Because of this non-attention to their specific health situation, their suffering and specific requirements to access non-discriminatory and affordable health care remain unreported and unattended to."
A few available studies substantiate that Dalits' health outcomes are poor. Chowdhury reported that Dalit are generally afflicted by skin diseases, diarrhea, tuberculosis, pneumonia at a higher level than the non-Dalit population. Islam et al. reported that water-borne disease are highly prevalent among Dalit population as water and sanitation facilities is scarce in the slum— with reports of nearly 12,000 Dalit sharing two water points in Dhaka, and nearly 58% of Dalit have no access to sanitary latrine. A study conducted outside the capital city, found that in a Dalit community in Jessore city around half of pre-school children were suffering from chronic stunted (58%) and underweight (45%), while nationally the corresponding figure is 36% and 33%.'

Methodology

2. In second paragraph, you said that "Combined with structural elements, the individual socio-economic context 'structural determinant' is constructed". What do you mean by structural elements?

Response: The sentence was replaced by: "Key individual socio-economic characteristics include income, education, occupation, level of knowledge and information. Combined with structural elements, these form what is referred to as 'structural determinant'. Thus structural determinants shape patterns of access to resources (for example here, health services) and are rooted in socio-economic institutions, policies and political context that construct, reinforce, and maintain social hierarchies in various social systems, institutions, policies and sociocultural values" in the text p.7-8.

3. In sampling strategy part, you said that "Using several data collection tools we achieved maximum variation within the sample"? What are the tools you had used to get the maximum variation?

Response: We used three data collection tools—in-depth interview (IDI), focus group discussion (FGD), and key informant interview (KII). We maintained maximum variation within the sample as we used purposive sampling to select the participants on the basis of key variables including age, gender and occupation.

4. To get a high degree of iteration and flexibility in order to build coherence and maximise the validity of the data you did snowball sampling to select individuals who had experienced discrimination of a specific nature or means? How would you ensure maximum variation (see question 4) of data if you select particular individual only?

Response: To ensure variation among the participants we purposefully selected participants along a range of key variables including age, gender and occupation, as also described above. In some instances we used 'snowballing' to select participants who we heard had experiences of particular types of discrimination, so as to be able to speak to the diversity of the experiences within the communities.

5. If you select only the individuals who had experienced discrimination of specific nature can you generalize the situation even for the two sweeper communities you have selected for the study (as your sample size is small but the two communities have approx.1000 families)?

Response: To clarify again, we did not only select participants who had experienced specific types of discrimination. We took significant efforts to include participants who differed in terms of key variables and stopped when we reached the point of saturation (meaning when participants were describing many of the same aspects of health inequalities).

6. Can you please describe the participants of the study based on inclusion and exclusion criteria? Also provide more information of the sampling strategy.

Response: We applied an inclusion criterion—participants were aged 18 and above and volunteered to participate—we purposively recruited the study participants to address the research objectives. In this process, we invited individuals who showed a proactive interest to share their experiences, opinions, and time. We added this information in 'sampling strategy' paragraph.

7. How you have selected key informants and FGDs members?

Response: We have selected the key informant on the basis two criteria—who have rich information about the Dalit health aspect, and willing to participate in the interview voluntarily. In case of selecting FGDs participant we considered age, gender, occupation, and volunteer participation. This has been clarified in the last paragraph of the sampling strategy.

8. Data collection procedure was well written.

Response: Thank you for your comment.

9. During finalization of themes and concepts did you consult with expert or knowledgeable person?

Response: Yes, along with the research team, we consulted with a professor of anthropology, Dhaka University, about the themes and concepts.

10. You mentioned you had considered possible harms and benefits in the consent form. Can you think of any possible harm for the participant while conducting the study?
Results:

Response: In order to maintain research ethics, it is mandatory to inform the participants about possible harms and benefits relating the research. Although this study involves very little and/no risk, we informed the participant about the research process. We were not aware or made aware during research of any significant possible harm to participants.

11. You had done 5 FGDS. However, you did focus group discussion with Ganaktuli men community twice. What was the reason for doing FGD with similar group (in terms of age and location) twice?

Response: Following the inclusion criteria, we did not find female participants for FGD in Ganaktuli. We conducted two FGDs with male participants because we wanted to reach data saturation point. In the first FGD we could not reach at data saturation point; therefore, we conducted the second FGD with the male participants.

12. Line 308-315: Were the diseases common for the Dalit population or for the genral population? Please refer citation.

Response: Literature shows that these diseases (health condition) are highly prevalent among Dalit population. We have added a reference in the revised version.

13. You discussed about space and unhygienic condition of the Dalit population under the "Space and Power" theme but did not give much information about power. Why is that?

Response: We include information about power aspect in the revised version.

14. Please provide relevant citation for line 346-347.

Response: we put relevant citation in the revised version.

15. In line 386 you said "the labour market both dynamically excludes and adversely includes Dalits by restricting their social and occupational mobility". What did you mean by adversely inclusion of Dalits

Response: By 'adverse inclusion' we meant that Dalits are positioned in the society in a way where individuals are unable to participate fully in political, economic, social, and cultural life that hinder them to access material resources. In part, dalits are excluded, but in other ways we can consider dalits to be included within formal socio-economic structures but on adverse terms.

Discussion:

16. How did you measure that the health inequalities of Dalits were severe (Line 587)?

Response: We have re-written this as 'the health inequalities of Dalits (as claimed by the participants)'

17. What did you mean by material determinants of health (Line 592)?

Response: In the revised version we replaced the 'material determinants of health' by the phrase 'structural determinants of health'

Reviewer: 2
Reviewer Name: Ramesh Govindaraj
Institution and Country: The World Bank, Washington, DC, USA
Competing Interests: None declared.

Please see file attached

Thank you for submitting your paper entitled "Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh" to BMJ Open. My comments have been forwarded to the Editor, who shall be in touch with you in this regard.

VERSION 2 – REVIEW

REVIEWER	Mohammad Rifat Haider Department of Health, Promotion, Education & Behavior Norman J Arnold School of Public Health, University of South Carolina, USA
REVIEW RETURNED	24-Jun-2018

GENERAL COMMENTS	1. Title should be 'Qualitative exploration of socio-cultural

	determinants of health inequities of Dalit population in Dhaka City, Bangladesh' 2. Line 13, 16, 15 and 17- Is 'Dushtha Shasthya Kendra, Dhaka, Bangladesh' different for superscript 1 and a? Is 'Department of Anthropology, Dhaka University, Bangladesh' different for superscript 3 and b? 3. Line 23- Remove 'Among others' 4. Line 182 to 184- Please rephrase the sentence 5. Line 206- 'We have selected the key informant on the basis of two criteria'

REVIEWER	Ramesh Govindaraj The World Bank USA
REVIEW RETURNED	15-Jun-2018

GENERAL COMMENTS	The paper entitled "*Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh*" has been resubmitted by the authors based on the previously provided reviewer comments. As I had mentioned earlier, the authors deserve credit for focusing on the Dalits in Bangladesh, a sub-population about whose health situation and needs not much isknown, and on which the literature is limited. The use of the Social Determinants of Health construct is also appropriate in this context, and provides a potentially powerful construct for the analysis. Given that they tackle a relatively neglected subject, the authors had an opportunity to present a robust analysis that could lead to substantive policy action directed at Dalits in Bangladesh. Unfortunately, they fail to do this convincingly, despite adding some more information in response to my previous queries/concerns. Specifically, the authors fail to demonstrate rigorously that the Dalits in Dhaka have worse health/nutritional outcomes and determinants, or specific healthcare access and outcome related disadvantages, compared to other poor, non-Dalit population groups - particularly those living in the slums of Dhaka. In other words, they fail to establish a clear "cause and effect" relationship between the socioeconomic determinants and the health outcomes of the Dalits in Dhaka, which is the basic premise of the study. While it may well be true that Dalits experience prejudice related to their identity (and there is evidence from elsewhere to support this contention), it is unclear from this study that the prejudice is translated into demonstrable health/nutritional inequities in comparison to non-Dalits, particularly those that are poor and/or are living in the slums in Dhaka. In addition to the small sample size, the methodology used by the authors - whereby only those who are willing to freely express their views and NGOs with a specific mandate to work with the Dalit populations are included in the study (who are also likely to be people with strong – likely negative – views) - is also problematic, and leaves the study open to various biases. Despite comments provided earlier, the authors have not chosen to include in the study interviews with other groups, such as government officials,

	employers of Dalit men and women, educational institutions and healthcare providers, which might serve as an alternative source of information on, and perhaps a more independent validation of, the many assertions made in the study. As noted earlier, the failure of the authors to append the questionnaires used for the interviews and focus group discussions, makes it especially difficult to gauge the extent to which reliable and unbiased conclusions can be drawn from the responses elicited from the interviewees. For these reasons, I do not feel that the study as undertaken merits publication in BMJ Open.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Mohammad Rifat Haider
Institution and Country: Department of Health, Promotion, Education & Behavior, Norman J Arnold School of Public Health, University of South Carolina, USA
Competing Interests: None declared

1. Title should be 'Qualitative exploration of socio-cultural determinants of health inequities of Dalit population in Dhaka City, Bangladesh'

Response: In the revised version (with track change), we corrected the title of the study as suggested by the reviewer.

2. Line 13, 16, 15 and 17- Is 'Dushtha Shasthya Kendra, Dhaka, Bangladesh' different for superscript 1 and a? Is 'Department of Anthropology, Dhaka University, Bangladesh' different for superscript 3 and b?

Response: In the revised version, we corrected and made it unique.

3. Line 23- Remove 'Among others'

Response: We removed the text per the reviewer's comment in the revised version. Please see line 23.

4. Line 182 to 184- Please rephrase the sentence

Response: We rephrased the sentence according to the comment in the revised version.

5. Line 206- 'We have selected the key informant on the basis of two criteria'

Response: In the revised version we provided clarification as follows.
"We have selected the key informant on the basis two criteria—information depth (who have rich/depth information about the Dalit health aspect), and voluntary participation (who are willing to participate in the interview voluntarily)."

Reviewer: 2
Reviewer Name: Ramesh Govindaraj
Institution and Country: The World Bank, USA

Competing interests: None declared.

See file attached
Comments have been shared with the editor, who may share them as appropriate.

Second Review of Paper entitled “Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh” submitted to BMJ Open

Ramesh Govindaraj
The paper entitled “Exploring socio-cultural determinants of health inequities: Experiences of Dalit population in Dhaka City, Bangladesh” has been resubmitted by the authors based on the previously provided reviewer comments.
Comment Reviewer: 2
As I had mentioned earlier, the authors deserve credit for focusing on the Dalits in Bangladesh, a sub-population about whose health situation and needs not much is known, and on which the literature is limited. The use of the Social Determinants of Health construct is also appropriate in this context, and provides a potentially powerful construct for the analysis. Given that they tackle a relatively neglected subject, the authors had an opportunity to present a robust analysis that could lead to substantive policy action directed at Dalits in Bangladesh. Unfortunately, they fail to do this convincingly, despite adding some more information in response to my previous queries/concerns.

Specifically, the authors fail to demonstrate rigorously that the Dalits in Dhaka have worse health/nutritional outcomes and determinants, or specific healthcare access and outcome related disadvantages, compared to other poor, non-Dalit population groups - particularly those living in the slums of Dhaka. In other words, they fail to establish a clear “cause and effect” relationship between the socioeconomic determinants and the health outcomes of the Dalits in Dhaka, which is the basic premise of the study. While it may well be true that Dalits experience prejudice related to their identity (and there is evidence from elsewhere to support this contention), it is unclear from this study that the prejudice is translated into demonstrable health/nutritional inequities in comparison to non-Dalits, particularly those that are poor and/or are living in the slums in Dhaka.
Response: We find the review’s observation quite relevant and important for us. We tried to present nationally representative demographic and survey data that can adequately demonstrate that health outcomes of Dalit and non-Dalit population differ statistically; however, we could not present any statistical figures as available literature (i.e. Bangladesh Demographic and Health Survey, Bangladesh Urban Health Survey) doesn’t present such information. But, we present some study reports that clearly indicate that Dalit;s health and nutrition outcome are poorer compared to non-Dalit population in some settings. In the revised version, we rephrased the text and added new information as follows (line 89 to 95).
“Although available literature (i.e. Bangladesh Demographic and Health Survey, Bangladesh Urban Health Survey) does not present nationally representative demographic and survey data to demonstrate how extend the healthcare access, and health and nutritional outcomes differ statistically between Dalit and other non-Dalit population in Dhaka city, some study reports indicate that Dalit have poor health outcome across the population in slum and other settings.”

Comment Reviewer: 2
In addition to the small sample size, the methodology used by the authors - whereby only those who are willing to freely express their views and NGOs with a specific mandate to work with the Dalit populations are included in the study (who are also likely to be people with strong – likely negative – views) - is also problematic, and leaves the study open to various biases. Despite comments provided earlier, the authors have not chosen to include in the study interviews with other groups, such as government officials, employers of Dalit men and women, educational institutions and healthcare providers, which might serve as an alternative source of information on, and perhaps a more

independent validation of, the many assertions made in the study. As noted earlier, the failure of the authors to append the questionnaires used for the interviews and focus group discussions makes it especially difficult to gauge the extent to which reliable and unbiased conclusions can be drawn from the responses elicited from the interviewees.
Response: We feel that the reviewer raised very relevant points in this section. We addressed these comments by clearly outlining the limitations of your study design as follows: Please see the limitation of the study section pages between 690 and 709 in the revised version.
Limitation of the study:
We think the limitations of this study warrant comments. Firstly, due to unavailability (we approached some other groups to participate in the interviews but they could not participate because either they had other commitments in the study time or did not show interest to participate), and resource and time limitation, this study did not include the entire groups and/or stakeholders, such as state officials, employers of Dalit population, government healthcare providers, which might have provided alternative source of information to adhere greater level of trustworthiness. However, we maintained a greater level of trustworthiness by applying four principles—credibility, transferability, conformability, and dependability. Furthermore, inter-coder or synchronic reliability referring the amount of agreement between independent coders of the data, and triangulation between methods, and participants were used to avoid biases in this study. Secondly, some participants might have been dominating in the group discussions which caused other participants to feel comfortable sharing their own opinions and experiences honestly. However, this limitation was mitigated by the experienced facilitators who built good rapports and enable each person's voice to be heard by elaborating, clarifying, agreeing or disagreeing, querying, explaining of the topic of discussion. Thirdly, the qualitative strand of this study was geographically limited to an urban setting (Dhaka city); therefore, the results may not easily be transferable across populations and places; for example, a small Bangladeshi town. Nonetheless, considering the data collected, we believe that this study provides an in-depth understanding of a set of social, cultural, economic and political factors that strongly determine the health outcomes of Dalits.
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