PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<u>see an example</u>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Impact of mothers' employment on infant feeding and care: a
	qualitative study of the experiences of mothers employed though the
	Mahatma Gandhi National Rural Employment Guarantee Act
AUTHORS	Nair, Manisha; Ariana, Proochista; Webster, Premila

VERSION 1 - REVIEW

REVIEWER	Solomon Sika – Bright
	University of Cape Coast, Ghana
REVIEW RETURNED	10-Feb-2014

GENERAL COMMENTS	Generally the paper is very good and informative. It is coherent and contributes to the current discourse on child health, a key area in the MDGs. However it would have been perfect if the paper was anchored on a relevant sociological theory. Meanwhile it is
	publishable.

REVIEWER	Audrey Prost University College London
REVIEW RETURNED	15-Feb-2014

GENERAL COMMENTS	This is a fascinating and important article about the potential influence of MNREGA on women's ability to feed and care for their infants, the reasons for which they take part in the scheme, and their control over money earned through it.
	While the study potentially has important implications for understanding MNREGA and certainly raises questions for further study, I fear that the data presented on feeding and care may be too slim to justify the strength of the conclusions made.
	I also believe that the article needs to be extended beyond the 4000 word limit, or else might be better suited to publication in a social science journal in which the authors could have the space to share the contextual detail, methods and additional data needed to give more credibility to the conclusions.
	As the authors know, the influence of MNREGA on women's lives is an extremely important and politically sensitive topic. Before making statements akin to saying that women are being forced into employment and that this is hurting child nutrition and care, it is important to consider all angles of the data and present enough of it to justify such strong and worrying conclusions.
	Overall, I would recommend the following revisions:

Major revisions:

- 1. Methods: Page 5, line 51 Provide more detail on the implementation of MNREGA in the district and in the 10 villages where you conducted the FGDs: what kind of labour where women involved in, how many hours did they work in a day and in a week, and how far (on average) were their work sites from their homes? This is critical to help the reader understand the context of participants' lives. Also, the implementation of such large programs as MNREGA is not uniform, and local history and bureaucratic culture makes a significant different to how they are implemented and received (see for example Chapter 1 in Akhil Gupta's 2013 ethnography 'Red Tape' for an example of how local bureaucratic functioning matters).
- 2. Methods: The analysis needs to be explained in further detail, both in the abstract and in the methods section. It appears that the authors carried out thematic analysis or some form of Framework analysis, but there is no reference to either of these approaches.

See for example:

Gale et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Research Methodology 2013:13:117.

Braun & Clark. Using thematic analysis in psychology. Qualitative research in Psychology 2006; 3: 77-101.

I am not suggesting that the authors simply reference one of the above post-hoc, but rather that they describe how they analysed the data stepwise, in particular making reference to how they examined discrepant cases (i.e. cases where participants' views differed from those encapsulated in the overarching themes: (e.g. mother's employment compromises infant feeding and care), and how/whether they integrated findings from the broader qualitative study.

This is important to strengthen the credibility of the conclusions, and because some of the findings reported in a PLoS One paper published in late 2013 by the same authors may slightly conflict with those reported here. For example, in the PLoS One article, authors quoted mothers reporting that MNREGA is keeping hunger at bay, in particular in case of crop failure, and is therefore an important and positive feature in their lives and that of their families.

3. Results: There is a tendency to jump to very strong interpretations of the data with little supportive evidence (in the form of quotes) or further probing, and little discussion of any discrepant cases.

There are several examples of this:

- "The women had problems with breastfeeding their infants during work hours which compromised both timely feeding and exclusive breastfeeding." How many of the small number of MNREGA mothers in the study had children under six months who would require exclusive breastfeeding, and did any of these mothers actually say they were unable to maintain exclusive breastfeeding because of their work?
- "Thus, it appears from the FGDs that mothers' employment in MGNREGA was detrimental to both infant feeding and to their own health." Yet findings from your earlier work published in PLoS One showed no significant difference in adequate feeding between non-MNREGA and MNREGA mothers. You need to provide more

qualitative data in support of this conclusion.

- p.10 'Benefits from MGNREGA not worth the cost of child care' None of the quotes presented below actually discuss the 'cost' of child care. You also mention 'There was general agreement that the negative effects on child care outweighed the benefits from MGNREGA. Thus many women preferred not to seek employment after their delivery.' Where is the evidence to support this statement? It must be provided.
- p.10 The finding that many women who sought employment from MNREGA after delivery did so out of coercion is striking and extremely important, but it really needs to be further explained and supported with more quotes. What proportion of the MNREGA participants talked about being coerced (physically or psychologically or both) into taking up MNREGA work? What comes across more strongly in the data you present is the dire economic necessity for food and work, which compels women to go to work.
- 4. Discussion, p.11. You state that "Mothers' employment through MGNREGA appears to compromise infant feeding and care". However, as discussed above, the findings on feeding are tenuous and may conflict with those of your quantitative study. There is also a strong possibility that when mothers are not employed in MNREGA they spend a great deal of their time in agricultural work, during which they are also likely to leave their children with a mother-in-law or the child's older siblings. This is a critical contributing factor to undernutrition but isn't acknowledged here, instead, MNREGA is blamed for this shift in care practices. What evidence do we have that this doesn't just happen anyway? Isn't part of the problem an all round shortage of quality crèches for all working mothers, rather than just MNREGA?
- 5. p.11, line 27. You need to discuss why you think your findings differ from those of other studies on MNREGA.
- 6. p.11 The influence of maternal employment on children's health, nutrition and cognitive development has been the subject of more than 30 decades of academic debate. As the authors probably know, the conclusions are far from being as simple as saying that mothers should stay at home so as not to compromise child care. In light of this, the two references (6 and 32) cited in relation to this and the comment "Mothers' care is considered to be best, especially for infants and young children" are a little odd.

You must review and quote more recent and rigorous work on maternal employment and child health, nutrition and development: see for example Cooksey et al. 2009 Does mothers' employment affect children's development?) not just studies from the 1970s.

See also Preston's work:

http://www.soc.umn.edu/~elkelly/Bianchi2000MaternalEmployment.pdf. A lot of this work is American, but it will give you an overview of what has been written in this area, in case you do not know it.

7. p.13 limitations. An important limitation is that one third of your respondents were involved in MNREGA at the time of the study. This should be stated.

Minor revisions

- 8. P.3, line 36: comprises is probably not the right word here.
- 9. P.5, line 53. Memo and 'codebooks'. Memos are commonly used in

qualitative analysis but did the author really keep 'a book' for these?
What is a codebook? It is a Stata command, not a qualitative tool. It
might be helpful to talk about how you actually did the analysis and
clarifying any odd terms.
10. p.12, line 3. The propaganda of the MGNREGA is 'Employment for

10. p.12, line 3. The propaganda of the MGNREGA is 'Employment for Empowerment'. Propaganda is a word with very strong negative connotations. You need to present more evidence than this to say that this is propaganda.

VERSION 1 – AUTHOR RESPONSE

Major revisions:

1. Methods: Page 5, line 51 Provide more detail on the implementation of MNREGA in the district and in the 10 villages where you conducted the FGDs: what kind of labour where women involved in, how many hours did they work in a day and in a week, and how far (on average) were their work sites from their homes? This is critical to help the reader understand the context of participants' lives. Also, the implementation of such large programs as MNREGA is not uniform, and local history and bureaucratic culture makes a significant different to how they are implemented and received (see for example Chapter 1 in Akhil Gupta's 2013 ethnography 'Red Tape' for an example of how local bureaucratic functioning matters).

Response: We have updated the methods section as suggested. A paragraph on the context and the scheme is added to the methods section. However, we did not incorporate details of the implementation history of the scheme and the bureaucratic and cultural issues related to it. These have been discussed at length in other papers.

2. Methods: The analysis needs to be explained in further detail, both in the abstract and in the methods section. It appears that the authors carried out thematic analysis or some form of Framework analysis, but there is no reference to either of these approaches.

See for example:

Gale et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Research Methodology 2013;13:117.

Braun & Clark. Using thematic analysis in psychology. Qualitative research in Psychology 2006; 3: 77-101.

I am not suggesting that the authors simply reference one of the above post-hoc, but rather that they describe how they analysed the data stepwise, in particular making reference to how they examined discrepant cases (i.e. cases where participants' views differed from those encapsulated in the overarching themes: (e.g. mother's employment compromises infant feeding and care), and how/whether they integrated findings from the broader qualitative study.

Response: As suggested, the abstract and methods section are updated with details of the method of analysis. We conducted a thematic analysis of the semi-structured questions that are included in this paper which is described in the revised draft. Framework analysis was used as a method in the paper published in PLoS One, but not for the sections of the study covered in this paper. A paragraph is also added in the 'Findings' section that elaborates the steps of data analysis, particularly answering the question about how conflicting views were encapsulated in the themes.

This is important to strengthen the credibility of the conclusions, and because some of the findings reported in a PLoS One paper published in late 2013 by the same authors may slightly conflict with those reported here. For example, in the PLoS One article, authors quoted mothers reporting that MNREGA is keeping hunger at bay, in particular in case of crop failure, and is therefore an important and positive feature in their lives and that of their families.

Response: The findings presented in this study differ from that published in the PLoS One paper in that the previous one was in the context of households receiving employment through the MGNREGA scheme, irrespective of who was employed, and its impact on infant nutrition, and this paper focuses on issues related to mothers of infants and young children who were employed through the MGNREGA. Although the participants were same, the views and perceptions were related to two different scenarios – employment to households in general and employment to mothers. The findings reported in this study thus focus on the questions related to the advantages and disadvantages of mothers' employment through MGNREGA (Table-1) and no attempt was made to integrate these with the broader qualitative study of this research project. We have clarified this in the revised draft.

- 3. Results: There is a tendency to jump to very strong interpretations of the data with little supportive evidence (in the form of quotes) or further probing, and little discussion of any discrepant cases. There are several examples of this:
- "The women had problems with breastfeeding their infants during work hours which compromised both timely feeding and exclusive breastfeeding." How many of the small number of MNREGA mothers in the study had children under six months who would require exclusive breastfeeding, and did any of these mothers actually say they were unable to maintain exclusive breastfeeding because of their work?

Response: As mentioned in the methods section, all participants were mothers who had a child in the age group of 1 to 12 months. This was mainly commented by mothers employed through MGNREGA during the study period who started work between three and six months after delivery and by participants who opted out due to such experiences with their previous child. This is clarified in the first paragraph on page 7 (marked-up copy).

- "Thus, it appears from the FGDs that mothers' employment in MGNREGA was detrimental to both infant feeding and to their own health." Yet findings from your earlier work published in PLoS One showed no significant difference in adequate feeding between non-MNREGA and MNREGA mothers. You need to provide more qualitative data in support of this conclusion.

Response: Hopefully our statement on how the PLoS One paper differs from this paper (mentioned earlier) clarifies this concern. We have also added the following 2 sentences in the last paragraph of page 8 (marked-up copy) to highlight the differences -

As discussed in the earlier paper (27), providing employment to rural households had a cumulative positive effect on infant nutrition mainly by preventing hunger. However, the perceptions of the mothers in this study were mainly related to compromises in the time devoted by the mother to child care and feeding, and lack of adequate care by other caregivers.

- p.10 'Benefits from MGNREGA not worth the cost of child care' None of the quotes presented below actually discuss the 'cost' of child care. You also mention 'There was general agreement that the negative effects on child care outweighed the benefits from MGNREGA. Thus many women preferred not to seek employment after their delivery.' Where is the evidence to support this statement? It must be provided.

Response: The theme 'Benefits from MGNREGA not worth the cost of child care' has been revised as 'Compromises related to childcare and feeding outweigh benefits from MGNREGA'. We have reorganised the section to hope that it makes more sense now.

- p.10 The finding that many women who sought employment from MNREGA after delivery did so out of coercion is striking and extremely important, but it really needs to be further explained and supported with more quotes. What proportion of the MNREGA participants talked about being

coerced (physically or psychologically or both) into taking up MNREGA work? What comes across more strongly in the data you present is the dire economic necessity for food and work, which compels women to go to work.

Response: As mentioned in the first paragraph of the 'Findings' section, coercion emerged as an important factor for mothers participation during the second FGD and was thus probed in the subsequent FGDs.

We have added the following sentence to the 'employment as disempowering' section on page 9 (marked-up copy) and also discussed about the interaction between women on this topic. "It was striking that almost all women spoke about coercion, some explicitly, some by agreeing to what the fellow participants said and others by smiling and nodding."

4. Discussion, p.11. You state that "Mothers' employment through MGNREGA appears to compromise infant feeding and care". However, as discussed above, the findings on feeding are tenuous and may conflict with those of your quantitative study. There is also a strong possibility that when mothers are not employed in MNREGA they spend a great deal of their time in agricultural work, during which they are also likely to leave their children with a mother-in-law or the child's older siblings. This is a critical contributing factor to undernutrition but isn't acknowledged here, instead, MNREGA is blamed for this shift in care practices. What evidence do we have that this doesn't just happen anyway? Isn't part of the problem an all round shortage of quality crèches for all working mothers, rather than just MNREGA?

Response: "It is highly possible that such compromises to infant feeding and care would exist for mothers who work as agricultural labourers or in their own farm, making mothers' employment in general a critical contributing factor to infant malnutrition, particularly in the absence of adequate crèche facilities. However, the problem in case of this employment scheme is made worse by long hours of work and fixed work sites for a village which may or may not be at a convenient distance for the mothers to come home and feed the children." This is now added to the last paragraph on page 11 (marked-up copy).

5. p.11, line 27. You need to discuss why you think your findings differ from those of other studies on MNREGA.

Response: Revised as suggested

6. p.11 The influence of maternal employment on children's health, nutrition and cognitive development has been the subject of more than 30 decades of academic debate. As the authors probably know, the conclusions are far from being as simple as saying that mothers should stay at home so as not to compromise child care. In light of this, the two references (6 and 32) cited in relation to this and the comment "Mothers' care is considered to be best, especially for infants and young children" are a little odd.

You must review and quote more recent and rigorous work on maternal employment and child health, nutrition and development: see for example Cooksey et al. 2009 Does mothers' employment affect children's development?) not just studies from the 1970s.

See also Preston's work: http://www.soc.umn.edu/~elkelly/Bianchi2000MaternalEmployment.pdf. A lot of this work is American, but it will give you an overview of what has been written in this area, in case you do not know it.

Response: Thank you for pointing the relevant papers. We have updated the discussion section of the manuscript.

A paragraph is added in the conclusion section that explicitly states that "the study findings do not imply that women with young children should not be employed through the scheme. Women are an

important part of the workforce and programmes such as MGNREGA should pay special attention to issues of mothers' employment within the context of 'women employment'."

7. p.13 limitations. An important limitation is that one third of your respondents were involved in MNREGA at the time of the study. This should be stated.

Response: As advised, this is stated in the revised draft.

Minor revisions

8. P.3, line 36: comprises is probably not the right word here.

9. P.5, line 53. Memo and 'codebooks'. Memos are commonly used in qualitative analysis but did the author really keep 'a book' for these? What is a codebook? It is a Stata command, not a qualitative tool. It might be helpful to talk about how you actually did the analysis and clarifying any odd terms. 10. p.12, line 3. The propaganda of the MGNREGA is 'Employment for Empowerment'. Propaganda is a word with very strong negative connotations. You need to present more evidence than this to say that this is propaganda.

Response: Revised as suggested