Author's response to reviews

Title: A qualitative study of factors affecting mental health amongst low-income working mothers in Bangalore, India.

Authors:

Sandra M Travasso (sandramarytravasso@gmail.com)
Divya Rajaraman (Divya.rajaraman@sjri.res.in)
S Jody Heymann (jody.heymann@ph.ucla.edu)

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Author's response to reviews: see over
Dear BMC Womens Health Editorial team,

Many thanks for sharing the very constructive reviewer comments on our manuscript. We have addressed the comments as detailed below, and we believe that this has strengthened our paper.

We look forward to your feedback and editorial decision.

Yours sincerely,
Sandra Travasso, Divya Rajaraman & S. Jody Heymann

Reviewer 1:

**Comment 1:** p.7 - Study setting and participants
Please describe in more detail how the specific study sites were selected, and then how the individual women were selected from within those sites.

**Response:** In response to the reviewer’s suggestion, the study setting and participants sub-section of the Methods section has been revised, as shown below:

**Study setting and participants**

Mothers of children between the ages of 0-8 years old who were currently working (and had been working for a minimum of a year) as construction workers, domestic workers, garment factory workers, or fruit/vegetable/flower street vendors were eligible to participate in the study. The four occupation groups were selected on the basis of being the most common low-income occupations amongst mothers of young children living in slums in Bangalore, and were initially identified through discussions with key informants (women’s group leaders in slums; representatives of NGOs working on labour issues, community development, women’s rights and child rights; government day care centre workers in slums; and, representatives of trade unions for low income workers). These occupations also represented a range of working conditions, such as variable work hours and multiple employers for domestic workers; daily wage labour for construction workers and some street vendors; self-employment and flexible working hours for some street vendors; and, unionization and industrial labour regulation for garment factory workers. The appropriateness of the selected occupations was validated through rapid mapping of women’s occupations and incomes on visits to 5 small/medium slums in the city. Other common women’s occupation groups that were encountered during these visits were street sweepers and incense makers. Street sweepers were not included as part of the study because the majority of street sweepers were older and did not have children between 0-8 years. Incense rollers were not included as part of the study because they worked short and flexible hours at home, and consequently did not face the same challenges balancing work and home responsibilities as other working mothers. Amongst the selected occupation groups, monthly income for a full day’s work ranged from INR4,000-INR8,000 (USD75-150).

A qualitative researcher visited multiple worksites (2 construction sites, 4 fruit and vegetable markets, 3 garment factories) and low-income residential areas (22 medium to large slums across Bangalore) to recruit study participants who would represent a range of working and living conditions. Forty-eight women (12 from each occupation group) who met the inclusion criteria were recruited.
Comment 2: p.8 - data collection and analysis
Please provide a reference for the 'socio-economic status questionnaire' or if this is not possible explain how it was developed and what it consisted of.
Response: The following clarification has been added to the manuscript:
“The closed-ended questionnaire was developed for this study to include basic indicators to assess the demographic and economic profile of the household. It included questions on participant age, marital status, participant and spouse highest education level, years of experience in current occupation, house ownership, number and age of children, monthly household income, household assets (mobile phone, bicycle, motorbike, car/auto rickshaw, television, refrigerator), and workplace benefits (Provident Fund, paid leave, maternity leave, health insurance).”

Comment 3: p.24 Discussion
The section on the proposed interventions to address the issue of domestic violence neglects to mention the need for strategies that target men specifically and the broader community generally i.e. raising awareness of the negative consequences of violence within the family, and the need to promote the unacceptability of family violence as a social value.
Response: We have addressed this comment by including references in the discussion section which note the importance of addressing structural drivers of domestic violence such as male identity, community norms and economic empowerment, as well as noting a promising intervention that seeks to address the potential role of mothers-in-law in reducing domestic violence in India. The revised second half of the paragraph reads:
“Intimate partner violence has been widely documented in India [28-30], and the levels are extremely high: in a nationally representative survey, 40% of reproductive age Indian women reported having experienced intimate partner violence, with the prevalence being much higher in lower socio-economic groups [31]. While a large number of NGOs in India have responded to the high prevalence of intimate violence with counselling services and shelters for abused women, awareness of these services remains low, and access uneven. Furthermore, providing services to victims of domestic violence is not a sufficient strategy in and of itself, without also addressing community and structural drivers such as women’s power, male identity and community norms including family elder roles in condoning or instigating domestic violence [32, 33]. In our study, none of the participants mentioned seeking help in dealing with intimate partner violence. There remains an urgent need in India to systematise and scale up screening for intimate partner violence in health care facilities and other institutions such as workplaces, and to introduce firm linkages between identification of intimate partner violence and mental health support services [18]. A promising intervention that has been piloted in southern India is the Dil Mil intervention study, which identifies participants through primary health clinics and aims to protect young women who are experiencing domestic violence by delivering intergenerational counselling sessions to mothers in law and daughters in law [34]. In addition to mental health and intimate partner violence services, economic empowerment services may have a role to play. The IMAGE trial in South Africa indicated that combining microfinance based poverty alleviation program and participatory training on gender and intimate partner violence can lead to economic and social empowerment and reduced violence from intimate partners [35]. It is unknown whether this will work in India but some research suggests that economic empowerment coupled with higher education levels is protective against partner violence [36].”
Comment 4: p.27 Conclusion
'we examined all life aspects and routine life...' I don't understand what this means - please reword this sentence so the meaning is clearer.
Response: We have moved this point to the end of the discussion as a strength of the study and re-worded as follows:
“A strength of our study is that we examined women’s perspectives on factors that have impacted their mental health across their family and work roles. Previous research has not detailed the role of work in women’s mental health and how this interplays with women’s other family responsibilities. Our study thus provides new and potentially more holistic insights into the influences on mental health and coping strategies for dealing with mental stressors.”

Comment 5: Also, upper case 'N' is used only for the entire population - a sample is designated with lower case 'n'. This applies to both the text and the tables.
Response: We have made these changes in the text and tables.

Reviewer 2:

Comment 1: The limitations of the study need to be mentioned as well as its strengths.
Response: We have elaborated on the limitations and strengths of our study as follows:
“A strength of our study is that we examined women’s perspectives on factors that have impacted their mental health across their family and work roles. Previous research has not detailed the role of work in women’s mental health and how this interplays with women’s family responsibilities. Our study thus provides new and potentially more holistic insights into a combination of life stressors and triggers that can challenge the psycho-social resilience of low-income working mothers in urban India, as well as coping strategies to alleviate these. Our study findings should be interpreted in light of the following limitations: the study sample was small, limited to one city, and focused on four occupations groups, which limits the generalizability of the findings. Furthermore, the cross-sectional nature of data collected limits causal inference about the factors that caused or triggered depression in this population. Keeping these limitations in mind, the findings nevertheless suggest important areas for further investigation through quantitative surveys and longitudinal intervention studies, while also highlighting areas for programme and policy action.”

Comment 2: In reporting a cross-sectional study it is not possible to make causal attributions and distracting to see this in a few places. I suggest edit to avoid unwarranted statements of causation e.g. last line p2, Abstract "Factors that reduced anxiety and depression were…’; p 19 "negative working conditions also affected ..’; p 23 ‘…this can push..’; p24 ‘…was one of the most frequent causes of poor mental health ..’ And where causation is described by interviewees to ensure it is reported as such e.g. p 12 'The resolution of some or all of the stressors brought improvements in their mental health state'; and p 16 'Roona's circumstances
had resulted in chronic depression and two suicide attempts' need editing to attribute the causal attribution to the subjects.  
**Response:** We acknowledge the reviewer’s point, and have edited the manuscript to ensure that causality is only mentioned as reported by participants. For example:

> “Factors that pointed towards reduced anxiety and depression were social support from family, friends and colleagues and fulfilment from work.”

> “The women in our study expressed how negative working conditions also affect their mental health.”

> “At the same time, when a range of more temporal life stressors (such as illness in the family especially among children, financial problems and lack of support from family members) strike at the same time, this could push women into spells of severe depression.”

> “Firstly, intimate partner violence, usually associated with spouses’ alcohol consumption, was reported as one of the most frequent causes of poor mental health by this study population.”

> “Women who experienced the resolution of some or all of the stressors often perceived improvements in their mental health state.”

> “Roona shared these circumstances that she felt had made her chronically depressed and described her two suicide attempts”

**Comment 3:** The process of translating and transcribing the interviews into English needs description.  
**Response:** The process of translating and transcribing the interviews into English has now been detailed in the methods sections as follows:  
> “Interviews were simultaneously translated and transcribed in English by bi-lingual research assistants. The transcripts were reviewed by the interviewer, who listened to the audio recording while reading through the transcripts to check for accurate and consistent translation. Transcripts were subsequently language edited to ensure contextual translation.”