Reviewer’s report

Title: A school-based epidemiological field survey: difficulties in collecting psychiatric outcome data in a middle-income country

Version: 0 Date: 13 Jun 2017

Reviewer: Michael Dunne

Reviewer's report:

This paper addresses significant methodological issues in mental health research in low and middle income countries, particularly in high violence areas and other challenging social environments. The authors should be commended for being frank about the pitfalls of their research methods, tools and procedures. Their 'lived experience' of psychiatric survey research with young people living in dangerous and economically deprived environments gives important insights for other researchers who face similar challenges, yet this is among few papers that frankly and quite comprehensively address these problems.

Essentially, this is a case study of an unsuccessful attempt to apply validated psychiatric diagnostic interviews in a one-year longitudinal follow-up study of adolescents and their parents/carers recruited through nine schools in a Brazilian city. The participation rate was low and there was significant attrition. Of the 416 individual adolescents sampled from school lists, only 50.4% of their carers/parents were contactable by phone (to provide consent for the child and agree to participate themselves). Only 43.4% of the original sample were interviewed at time one, and only 28.4% of the total completed the follow up interviews (the T1-T2 loss was 35%). Clearly, findings from such data are difficult to interpret due to a wide range of likely selection, participation and attrition biases. The authors focused this paper on possible reasons why the survey was not successful.

The manuscript needs some work. There is one important limitation, while most of my recommendations are for minor improvements

First, the authors focused mostly on attrition between T1 and T2. However, more should be said about the low initial participation rate. Only half of the target sample could be reached. The main reason discussed was that phone numbers were not available or invalid. While that may explain many or most cases, they should also discuss the extent to which their failure to get accurate phone numbers from children was due to passive refusal. The amount of time the children were
asked to volunteer for the interviews, and the expectation that children and parents should come to the school on the weekend to be interviewed, may have made participation unattractive. Rather than refuse outright, the children may not have responded positively to requests from the researchers or their teachers to access their caregiver's current phone numbers. The authors could expand the discussion on page 8 regarding other reasons for refusal at time 1.

Page 5, line 91: There is inappropriate use of the term "several numbers" as there appear to have been many phone numbers that were out of date.

Page 8, line 177: how many schools actually have fewer than 100 students enrolled?

Page 11, lines 232ff: When discussing the ethics of using incentives, the authors pointed out the national regulation in Brazil that precludes cash or kind inducements or compensation for participation in survey research. This obviously raises significant barriers. The authors argued that an acceptable approach may be to offer free psychological assessment and counseling (after the study) for participants and carers/parents who agree to participate. However, they should consider that this offer may result in participation bias (on the dependent variable), where people with active mental disorders, drug and alcohol problems and so on may be more interested in taking part in an epidemiological study of related health problems.

Page 17, lines 351ff: Here is the crux of the matter: The authors refer to the advantages of using structured psychiatric diagnostic interviews in preference to more superficial scales of mental distress. The benefit should be better internal validity. That's true, but given the considerable problems involved in doing comprehensive psychiatric assessment in these social contexts, the participation is low and attrition high, thus damaging external validity. The authors appear in this case study to be verifying why many researchers in youth and family mental health do not use the more comprehensive approach in psychiatric assessment. It may be preferable to do smaller, more controlled studies that validate brief screening tools against psychiatric interviews, and then proceed with the more efficient screening tools in larger school-based surveys. The data are less nuanced and clinically precise, but at least the findings from surveys with high participation are indicative of mental distress and more generalizable.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal