Reviewer’s report

Title: Bullying and sexual abuse and their association with harmful behaviours, antidepressant use and health-related quality of life in adulthood: A population-based study in South Australia

Version: 0 Date: 03 Jul 2018

Reviewer: Michael Dunne

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This paper reports findings from a methodologically impressive population-based survey of adolescents and adults in South Australia. It generates novel data for that state's population and is one of few probability sample studies in Australia that reports estimates of sexual abuse and bullying. The methods are generally described clearly, and while there could have been more information included on survey sampling and procedures, the authors refer the reader to prior papers from the survey that are sufficient. The statistical analysis is appropriate for the dataset and the presentation of findings is impressively clear in the text, tables and figures.

My main concern is with the way the authors have 'pitched' the paper. It is predicated on the incorrect assumption that "Few studies have investigated the cumulative effects of different forms of abuse on adult health outcomes" (abstract, p2, lines 1-2). This is not correct, as in recent years that has emerged a wealth of empirical evidence that quantifies these associations. Narrative and systematic reviews have shown quite clear dose response associations between increasing exposure to multiple types of interpersonal violence and child maltreatment and a wide range of health problems. The authors also suggested that the association with health-related risk behaviours (such as smoking, excessive alcohol consumption, risky eating practices etc) has not been explored deeply, but this is not really the case. In 2017 for example, Hughes et al, Lancet Public Health, reported on such associations from 37 high quality studies globally. In Australia, Moore et al (2015) synthesized evidence from 23 studies that, although mostly not probability samples, are germane to the analysis of single and multiple forms of abuse.

The data reported here are important. However, the value of the study is confirmatory rather than exploratory. When reflecting on the quality of the study overall, the authors seem to have missed its best feature. They have shown how to successfully incorporate some sensitive questions about maltreatment into an omnibus health survey and demonstrated that the data have high concurrent validity. The associations between single and combined estimates of sexual abuse and bullying and mental and physical health problems are in the expected direction. The contextual information obtained on duration and age of onset are very valuable, and again the authors confirm that the findings are consistent with expectations from research studies that utilised much more detailed and lengthy instruments. One of the most serious practical challenges to research in this field is that the sensitivity of abuse precludes measurement in many routine health and social surveys (such as national health surveys in Australia). Yet, the authors have shown that it can be done - and given the apparent validity demonstrated here - that it should be done routinely in the future. I therefore suggest that the authors change the introductory remarks about the paucity of evidence and modify the discussion (pages 14-16). The measures used here
were minimalistic (limited to just a few items, as they inevitably will be in omnibus surveys) and this obviously limits their value in research that seeks to explore the phenomena. Arguably however, there is not a pressing need for more data of that type as the harms from sexual abuse and bullying are well known. A key task for public health researchers and practitioners is to find ways to ensure that the assessment of these exposures can be mainstreamed in routine health surveys, thereby allowing these often potent causes of health problems to become well established in population health narratives and policy.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

Yes

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

Yes

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