Reviewer's report

Title: Safe sleep practices in a New Zealand community and development of a Sudden Unexpected Death in Infancy (SUDI) risk assessment instrument

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Reviewer: Jeremy Pryce

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This paper presents the findings of a prospective longitudinal study of 209 infants from 2009 to 2011, including a review of their risk factors for unexplained SUDI. The authors aim to describe childcare practices related to SUDI prevention messages and develop a risk assessment tool.

The study presents the results of a group of patients from Dunedin, New Zealand who were randomised into the control arm of a separate study entitled Prevention of Overweight in Infancy study. As that study provided additional support for breastfeeding and/or appropriate sleep habits, patients from the other 'treatment' groups were not included.

The results follow on from a series of interviews and questionnaires that were undertaken by this group.

In accordance with the BMC Pediatrics guidelines, I have broken my comments down into three categories.

Major compulsory revisions

The authors present data from the 209 patients that they recruited. However not all were included in the analysis (for example only 176 cases are used to provide predictors of SUDI risk scores and only 140 patients provided information on their alcohol consumption). This is not discussed in the methods, results or discussion, apart from line 174 where the authors state that family income was not reported by 8%. This becomes apparent through evaluation of the tables. The authors should provide a clearer summary and a discussion of how they dealt with this, in the statistics and results section.

Minor Essential Revisions

1. In the first paragraph, please could the authors define SUDI. The authors then state that unexplained SUDI remains the most prominent cause of post-neonatal death. They correctly state in the first part of the paragraph, unexplained SUDI is not a cause of death. This should be corrected.

2. The exclusion criteria are: Infants who were premature were excluded, as were those with any degree of congenital abnormality or disability that was likely to affect feeding, physical activity or growth. This should be stated in this paper and not referenced, as this is an important exclusion criteria in the context of
3. 6 key best practices were selected, however the paragraph (line 135) should be made clearer (e.g. These “best practices” were: sleep supine (back) [15], not smoking during pregnancy [16], not bed sharing, not smoking (calculating separate risks for those who bed shared and/or smoked) [17], breastfeeding (any) [18], and using a pacifier [19].

Also, in table 2, the authors present the results of bedsharing and/or maternal smoking in pregnancy. Could the authors clarify this, as to whether this includes post-pregnancy as well.

4. I advise that the references are checked. For example, the authors stated that the incidence amongst Maori has been 5 times that amongst non-Maori [6]. On checking this reference, I was unable to find this statistics (up to 3 times was apparent). The appendix from Reference 16 is not available to obtain the odds ratio that the authors used. Reference 39 is not available from the provided link.

Discretionary Revisions
None.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests