Reviewer’s report

Title: Season of Birth vary in Inuit Suicide Victims born into traditional but not into modern Lifestyle. A Register Study from Greenland.

Version: 2 Date: 17 November 2014

Reviewer: Sarah Fraser

Reviewer’s report:

Review of paper: Season of Birth vary in Inuit Suicide Victims born into traditional but not into modern lifestyle. A register study from Greenland.

All in all this is a very interesting paper with a rigorous method. The literature review is pertinent and quite complete however there are issues regarding organization of information and important issues with syntax and grammar. I would recommend revisions be made before acceptance although I definitely recommend that it be accepted for publication following these revisions. (Major Compulsory Revisions - which the author must respond to before a decision on publication can be reached). The information is mostly present within the current paper but needs re-juggling to ensure clarity.

1. Is the question posed by the authors well defined?

The question is clear and well defined: assess whether there was a variation in season of birth in suicide victims born in Greenland in a traditional life-style and in those born in a modern life-style.

However the introduction does not explain why we would imagine a difference – why would we even consider exploring this question (difference between traditional and modern life-style). How did the authors come-up with this research question – please contextualize.

2. Are the methods appropriate and well described?

It is not clear to me where the 1903-1950 data came from.

For lines 180-183 it is not clear to me how the data is linked to date of birth.

Not clear what analyses were done other than Rayleigh test for circular distribution.

3. Are the data sound?

Would seem so.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?

Yes, no evidence of manipulation.

5. Does the manuscript adhere to the relevant standards for reporting and data
6. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes — only interrogation I have is why authors don’t discuss the peaks in months because it brings certain inconsistencies: highest rates of birth among suicide victims in July, October and November?! Are these statistically different from other months?

7. Are limitations of the work clearly stated?
Yes

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes

9. Do the title and abstract accurately convey what has been found?
Yes

10. Is the writing acceptable?
No, there are multiple sentences that need reworking. Here are a few.

   Lines 55-63 this section is not particularly helpful in bringing the reader to the question
   Line 65: not start with this as the rest of the paragraph is not related.
   Line 66 (suggestions): In the old Inuit society, life span was short and few reached old age (PERIOD- new sentence) Results from Bertelsen’s study suggests that between 1901-1930 suicide rates were 3/100 000.
   Comment: the fact that few reached old age and that suicide rate was of 3/100 000 are not related facts.

   Lines 72-82 would most likely be easier to understand, with regard to pertinence, if they were placed after line 121: the impact of light on melatonin is particularly interesting when one takes into considération Greenland’s recent history…. Line 75: re-write sentence.
   Line 86 re-write sentence: suggestion- the role of sunshine on suicidality has been explored by some
   Line 87: violent suicides please specify.
   Line 88: re-write: there is a strong accentuation of the seasonal concentration ?
   Line 90: most likely meant to be a title of a section (bold)
   Line 95: numbers of « future » suicide victims
   Line 97-99: rewrite sentence Suggestion: risk of suicide was higher among
Hungarians born in spring and summer with highests risk among those born in July. In England and Wales, risk of suicide was highest among those born between April and June.

Line101-102 : not sure what the sentence means. Maybe : A study conducted in northern Sweden suggests that suicide methods among suicide victims differed as a function of month of birth. Death by hanging was the most prevalent method among suicide victims born between February and April whereas death by poisoning or use of petrol gas was the most prevalent method among those born in September. (make sure that the words fit with the methods used in this study).

Line 106-107 : Results from a small study suggested …

Line 108-109 : suggestion : However, other studies have been unable to find such association…

Line 138 : mode of death (cause ? of death)

Line 162 : should it not be 1903 to 1930 rather than 1950 ?

Line 210 : period should go after the parenthese.

Line 252-253 : I do not understand the pertinence of this sentence.

Line 255 : country food.

Line 246 : i don’t believe we can say that « nutrition undergoes changes » maybe something like : there have been important changes in eating habits ?

Linee 274 -275 (and lines 281—283) : i feel uncomfortable with these sentences which suggest that there may be changes in causes of suicide based on a single study with an undefined methodology.

Line 279 : why is there an e.g. ? problem with the sentence : Aboriginal people taking up with modern life-style…

Line 280-281 : re-write the sentence. Every suicide is distinct ? Causes of suicide include individual and ecological factors ?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

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