Reviewer’s report

Title: Life situation of women impaired by Thalidomide embryopathy in North Rhine Westphalia - a comparative analysis of a recent cross-sectional study with earlier data

Version: 0 Date: 15 Jun 2018

Reviewer: Anne Kjersti Daltveit

Reviewer's report:

Review "Life situation of women affected by Thalidomide embryopathy in North Rhine-Westphalia - a comparative analysis of a recent cross-sectional study with earlier data"

In this paper data from two studies are compared - one study published in 2002 with 104 women (N2002) and one study published in 2015 with 115 women (P2015). For both studies data are collected in North Rhine-Westphalia. The aim of this paper is "to compare the previously collected data of N2002 with the recently collected data of P2015 and therefore close this gap of knowledge as to current health problems and anticipated health problems, medical care and assistance."

Some comments:

Title: I would prefer "Women impaired by Thalidomide embryopathy" before "Women affected by Thalidomide embryopathy", as the term "affected by" could also relate other persons than the impaired person (family etc.).

Abstract:

I am not familiar with use of the term "inferential statistical methods" in such studies.

In the abstract it is stated that "…face a poorer health status than women their age in the general population". In the Results section of the text no comparison with the general population is made, only comparisons between 2002 and 2015. Comparison with the general population is, however, mentioned in the Discussion. If these comparisons are suggested to represent a main result of this study - as indicated in the abstract, I suggest that they should be included in the Results section. I understand that it will not be possible to perform statistical tests with the general population, but they can still be included as observed data and for example added to the tables.

Introduction/background:

In the aims you state that you want to "close the gap of knowledge…” Based on a relatively weak study design with crossectional data as compared to a stronger design with longitudinal data, I think it is too ambitious to say "close this gap" here.
Methods:

There is a flowchart for the data collection for the 2015 survey but not for the 2002 survey - why not?

What were the data collection periods for the two surveys? This is to some extent mentioned in the Methods section for the 2015 data, but could be more clearly presented for example in the tables.

Since the two surveys took part in the same geographical area it is relevant to know if the participants to some extent participated in both surveys. The problem is mentioned under "strengths and limitations", but no estimate is given. Can this be estimated, for example based on an estimate of number of impaired women in the district? In principle, alternative statistical methods should be used if participants are measured more than once, but the bias due to this most likely minor.

Results:

Table 1: I would like to have range of age in addition to mean. The range of age is for example relevant in order to understand the increased level of education between the two surveys. (Range for the 2015 data are given in the Results).

Table 1: Statistical testing is not performed for all variables, the reason for this is explained in the Methods section but could also be given in a footnote.

What is the meaning of the last sentence in Results: "Additional data that was collected in 2002 was provided by the author"? I suggest that you had access to original data from the 2002 study.

Discussion lines 228+ and 236+. You compare your population with the German female general population. To me this is as interesting as the presented comparison between the two surveys. Have you considered to include some descriptive numbers for the general population in the tables?

Discussion lines 269+. The large differences found in the educational background is discussed, and a possible selection bias is considered. Because this is a very descriptive study, I would not put too much focus on the statistical tests in tables 1 & 2 and think that the interpretation of the tables should be based on observed data. But since you suggest that much of the difference in education is due to selection, have you considered to perform tests with adjustment for education?
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.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
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No

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I am able to assess the statistics

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