Reviewer’s report

Title: Data preparation techniques for perinatal psychiatric study based on linked population data

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Reviewer: Helinä Hakko

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The authors have reported the examples on methods for merging data, calculating statistical variables, categorizing psychiatric diagnoses and summarizing hospital admission data.

In general, these kind of examples are useful for researchers who themselves want to analyse data obtained from several sources and to explore data having a various kind of structure. However, the professional and high-level research groups nowadays include always experienced statisticians and to them it is a routine job to do data handling like that the authors have described.

The paper has some merits. First, it is good to show to researchers that it is possible to combine data, which is obtained from several registers and which have various kinds of structure. The use of information obtained from the national register is still too rarely acknowledged in scientific research. Usually this is due to the fact that the registers lack of unique personal identification code, which is a requirement for reliable data merging, despite of developing of probabilistic matching techniques. Secondly, the national register of Australia are described in the paper, which may benefit the other researchers in Australia working around the same study issues. However, the description of the content of the register should be more comprehensive. Third merit is that the actual examples of Spss-syntaxes are given in the paper. Hopefully the syntaxes are tested thoroughly so that the potential users of them do not meet problems when applying those syntaxes in their own data.

What is missing from the paper is the discussion of the use of information from national registers in other countries than Australian. For example there is a long-lasting tradition in register linkage and register-based research in the Nordic countries, see for example Miettunen J., Suvisaari J., Haukka J., Isohanni M., Use of register data for psychiatric epidemiology in the Nordic Countries., in: Tsuang, M., Tohen, M., Jones, P. (Eds.), Textbook in psychiatric epidemiology. Wiley-Blackwell. In addition, some discussion about reliability of the information of registers used in their study is worth of adding to the manuscript.

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

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests