Reviewer's report

Title: Age, mode of conception, health service use and pregnancy health: A prospective, cohort study of Australian women

Version: 1 Date: 11 September 2012

Reviewer: Reija Klemetti

Reviewer's report:

Age, mode of conception, health service use and pregnancy health: A prospective, cohort study of Australian women

Fisher et al reported association between maternal age and self-rated physical and mental health, health service use and health behaviors during pregnancy as well as association between mode of concept and self-rated physical and mental health, health service use and health behaviors during pregnancy. They found that after taking into account sociodemographic factors and multiple gestation no associations can be seen.

General: Research question is important and topic is interesting. The article offers new information on general health in ART pregnancies.

The article is well written but quite long and it could be useful to shorten/condense it. Discussion needs rewriting. My main concerns relate to small numbers and including twin pregnancies in the models. After stratifying by age and especially furthermore by health insurance status, number of women per each group was quite small (and this might be one reason that no associations could be found). This could be added into the limitations of the study as well as into conclusions. Somehow it is strange that multiple gestation is in the models because it is a key element in ART – one reason which cause problems. I would consider leaving out multiples from the analysis (or analyze them separately which might not be possible because they are so few). It was also a little bit confusing that so many measurements were included. Are all of them important to include in this study?

A. Discretionary Revisions

Abstract: reflects the content of the article but some corrections are needed.

Background could be shortened to point out clearer the most important aspects. Main outcome measures: SF 12 PCS, SF 12 MCS and health service use are clearly presented in the method section. How about health behaviours mentioned in the purpose of the study? They are not mentioned in results, methods and conclusions. If they are important, they can be added while shortening the other parts.

Introduction: is very detailed and therefore quite long.

Part of the detailed information can be transferred to the discussion section and part can be omitted. You can concentrate on those issues included in your study.
Study question is clearly presented (see my previous comment).

Method: The authors accurately explained how data were collected.

All different instruments were clearly described. The authors can consider whether all included measurements are important to present in this article.

Power calculations were made. However, my concern is that after stratifying data by age and insurance status sample sizes per each group were quite small. As well as that the model includes twin pregnancies – I think it is not a confounder or background variable but an outcome and therefore I think singletons and multiples should be studied separately.

Results: A flow diagram could describe more clearly the number of eligible and participated women than the long text at the beginning of the result section.

Tables: were informative. If the health behaviours are important, one of the main outcomes (mentioned in the purpose of the study), at least one table of health behaviours would be useful to include in main tables not only as an additional table.

B. Major Compulsory Revisions

Results: Result section includes some interpretation of results: see chapter sociodemographic characteristics and reproductive health. These can be transferred into discussion section.

Please, refer to tables when you reporting the results.

Discussion:

The moment version needs re-writing and editing as well as discussion comparing previous results and results received in this study. I would prefer a structured discussion: 1) short summary of the results, 2) strengths and limitations of the study (well described in the present version with the exception of small numbers), 3) interpretation of results and comparison with earlier findings (much information can be reached from “Introduction” or “Background”) and then 4) conclusions.

C. Minor comments:

1. I would suggest using ART instead of ARTC – even “C” is referring to conception.

2. Why the authors used untypical classification by age (up to 30, 31-36 and 37+)? Could you please explain this?

3. In Table 4 95%CI is enough – please do not repeat Adj OR.

Level of interest: An article of importance in its field

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'