Reviewer's report

Title: The relationship between a less traditional parenthood and alcohol-related care and death: a registry-based cohort study of Swedish mothers and fathers

Version: 1 Date: 28 April 2008

Reviewer: Amanda Nicholson

Reviewer's report:

This paper addresses the question of whether parenting / childcare responsibilities are associated with less alcohol-related harm in men and women. The study population comprises Swedish couples who had their first child together in 1978. Exposures relating to the division of childcare and work during 1978-1980 were analysed in relation to future death or inpatient care for alcohol-related illness during 1981–2001. The paper finds that taking for fathers any paternity leave was associated with less alcohol–related harm and for mothers full-time working (> 34 hours a week) associated with increased alcohol-related harm.

This is an important topic for many industrialised societies and contributes to the understanding of both gender differences in illness and the impact of changes in societal and role responsibilities on health. The authors make good use of routinely collected Swedish data. A problem for the topic is that decisions about working patterns for mothers / fathers are influenced by many socio-economic factors which may confound, mediate or modify the relationship between working patterns and alcohol–related harm. Although the paper focused on the impact of childcare responsibilities on alcohol-related harm, the analyses presented make it difficult to see what contributions these other factors are having on the observed associations.

Major compulsory revisions

1. Presentation of mothers’ results

The authors focus on the finding of increased risk in full-time working mothers, compared with those working fewer hours. However the data in Table 4 indicates that it is equally valid to emphasise the increased risk in mothers working less than 20 hours. The significant finding for women is that women working 20-34 hours are at lower risk. The increased risk in women working > 34 hours compared to those working <20 hours is not statistically significant and reverses direction during adjustment for socio-economic position (see comments below). The authors’ conclusion on p19 that “taking care of children is associated with less alcohol consumption for both sexes” is not justified. There are contradictory results for men and women. Men who work most and women who work least were found to be at high risk.

I feel it is justified to present the men’s result for dichotomised work patterns but
for women the categorised results only should be used.

2. Impact of subsequent children on childcare patterns

Having another child in the two years after the birth of 1st child will have an enormous impact of women’s decision or ability to work full-time and affect parental leave for men. Depending on how work measures are averaged over the year it would be unusual for a women who had a subsequent child in 1980 to work full-time. Men and women who had another child should be analysed separately or removed from the analyses.

3. Control for socio-economic position / family roles

Decisions about childcare patterns and division of responsibility are largely influenced by family structure and socio-economic position. The impact of different work-home patterns on behaviour are in turn affected by these other factors. A woman working full-time because a. she is a single-parent, b. her partner is at home full-time or c. both partners are having to work to maintain sufficient income will each have very different experiences in terms of role balance / enhancement / overload. Although the sequential models adjust for many of these variables, the combination of factors added to each stage are complex and may have differential impacts on the observed work–alcohol associations e.g. partner’s paternity leave plus partner’s endpoints both added to model V.

a) Where a factor may be an effect-modifier in women, the authors should consider presenting stratified effects e.g. by cohabitation or whether partner who took paternity leave or not

b) Rather than adjusting for own income and then partner’s is it possible to adjust for a combined household income? This would give a clearer indication of the effect that adjustment for income was having on the observed associations.

The effect of adjustment for socio-economic factors / family structure on the associations should be noted and discussed.

4. Data

Exposure :

a) A few more details on the exposure measures should be included e.g. How are hours women worked calculated if they took some maternity leave during the year?

b) Missing data: It would be helpful if authors could discuss the potential bias due to

- 4,000 + women with missing hours of work.
- missing type of work (as indicated by fall in numbers included in models II-III)

Outcomes :

c) The outcome measure used is serious alcohol-related harm but much of the
paper refers to or discusses alcohol consumption e.g. abstract & conclusions. Although consumption will be closely related to these outcome measures they are not identical and other factors, such as pattern of drinking, may affect the outcome. This limitation should be addressed in the discussion.

d) Some details of completeness & accuracy of registers and linkage systems should be included e.g. estimated completeness of endpoint data coverage. This would be particularly of benefit to readers not familiar with Scandinavian data systems.

e) The section on in the Discussion p16, para 2 about exclusion of intoxication is not clear because the Methods section does not discuss the exclusions referred to.

Confounding by socio-economic position is likely to be considerable, with more educated men and women in more professional jobs more likely to be able to work part-time and less likely to abuse alcohol. Although occupation and income are used to control for socio-economic position, occupation in women immediately after birth of a child may be not be representative and the classification of occupation for women not working is problematic. Most women working less than 20 hours were classed as “other” whereas most working women were in manual / non –manual groups. Hence adjustment for occupational status in women is not really possible across all working groups and including occupation variable in models will have led to small numbers in small cells.

f) Was the occupational variable categorical or linear?

g) Is it possible to access education status or previous occupation to give a better measure of socio-economic position?

5. Analyses

a) Tables 3 & 4 show sequential adjustment but different numbers of subjects are included in the models. This makes it impossible to compare across models for the effect of adjustment. Either all models should be on the same subjects with complete data and/or multiple imputation should be used. Does the large drop in numbers of men included between model III and IV indicate limited numbers with access to data on partner?

b) Adjustment for type of work in women led to reversal of direction of effect for fulltime work in Table 4. Was this a linear variable or were 57 dummy variables added to the model which may have lead to an unstable model with small numbers in some cells.

c) Stratified results are given for age, occupational group and country of origin but no interaction tests have been reported.

6. Language

Although paper is comprehensible some of the language used is dated and
somewhat stylised. The paper would benefit from a fluent English speaker reading & commenting in detail throughout but a few examples / suggestions are
- p2 line 2-3 : “the present study investigated the hypothesis .. ”
- p2 Methods: Line 1 Study sample rather than material
- p5 end of 1st para : traditional / conventional rather than archetypal -
- p8 para 3 line 2 : – “changes in parental leave had only been recently introduced before the time –period studied”

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