Reviewer’s report

Title: Do open youth unemployment and youth programs leave the same mental health scars? - Evidence from a Swedish 27-year cohort study

Version: 2  Date: 3 August 2015

Reviewer: Bridianne O’Dea

Reviewer’s report:

Thank you for inviting me to review this paper. This is an important area of research, given the growing issues with employment and mental health worldwide.

Minor Essential Revisions:

Introduction:
1. Throughout the paper, I was a little confused about the terminology used. In some instances, “youth programs” vs. “open unemployment” were used, and then in others “two forms of unemployment” was used instead. I advise the authors to provide a clearer definition of terms in the introduction. Instead of “youth programs”, terms such as “supported unemployment” vs. “unsupported unemployment” might be easier to digest/understand. I would suggest consulting the unemployment/vocational training literature more broadly for the best terminology to be used here. This will help to clarify the essence of the paper.

2. In the second paragraph, you refer to a “correlation” between unemployment and mental health. I advise authors to make comment on the strength and direction of this association, so that comparisons in the discussion can be made.

3. The first sentence of the third paragraph needs to be rephrased, and the introduction could benefit from some paragraphs (last two) being restructured.

4. Overall, the introduction has a number of good points but the paper could be enhanced by a shorter, more concise overview of the background literature in this area and some rationale for the collection of confounders.

Methods:
5. The methods section needs extensive revision. Firstly, no results should be presented here. I advise authors to move all tables and related results into the Results section.

6. One outcome measure is stated as “exposure to youth unemployment”. Please revise this to better match the terms you decide upon using. For example: “Type of unemployment” or “Nature of unemployment”. Given the lack of research in this area, I am wondering why exposure (in weeks) is not kept as a continuous variable? Please explain what is frictional exposure and the impact it has? Please provide evidence for why 5 months was chosen, as opposed to 3 months,
for example. Is there any evidence for 5 months of exposure being particularly problematic? I feel that the answer given “…in order to ensure a large enough group only exposed to open unemployment” is manipulation of the data without good reason.

7. Please provide more meaning for the Mental Health outcome measure. It is a very unfamiliar scale and validation for the exact scale should be included (rather than validations of the scales the items were taken from). Furthermore, can you indicate what the scores “mean”…i.e. if almost all of the sample have mental health scores below 1, then is this the right sample to be investigating mental health problems?? This is a potential limitation that was not mentioned in the limitations sections.

8. Please provide better clarification on the terms “blue collar”/“white collar” – does this mean whether or not parents attended university (i.e. parental education), the current occupation of parents (labourer vs. professional) or the income status of parents?

9. Why was paternal health included but not maternal?

Results

10. Is it possible to provide the OR and CI for the confounders in the Tables? It would be interesting to see the results of these variables in addition to the employment variable.

11. For predicting long term impact (mental health at 43): The value of the modelling might be improved if your first step includes mental health at 21 rather than mental health at 16, as this would control for the short term impact of the employment exposure.

12. I am still unclear about those people who had both open unemployment and youth program. You do state that “many who were exposed to open unemployment” were not exposed to youth programs, but I am wondering how to interpret the risk for those who were exposed to both. It seems that open unemployment is more detrimental, but what is the exact OR? You may think about excluding these participants if it is a small number and focus exclusively on those in open vs. youth programs.

Discussion

13. I believe the discussion answers the question posed, however, it would be good to see some comparisons with other studies in this area. Also, the model of mental health at 43 years only predicted 9% of the variance in mental health. This is not overwhelming and states that there is a lot of other factors influencing mental health. The model of mental health at 21 years only predicted 15%, which again, is not a significant portion. You need to consider the implications of these low C-S values in your discussion.

14. The authors should be commended on the quality of the data in terms of attrition. This appears to be an excellent data source for which these sorts of
questions can be asked.

Discretionary Revisions

Methods:

15. I understand the primary aim of the paper is to examine the differences in impact according to type of unemployment program, rather than length of time specifically, but this may be something worth manipulating as well. Or, if policy guidelines make recommendations about how long someone should stay in supported employment programs, then include this. Or alternatively, if there is evidence stating periods of unemployment > 1 month is negative to mental health, then use this.

16. If the results were not changed given different in analyses techniques (i.e. binary logistic or linear regression), please just include your final choice in analyses. Also, it may be worth considering using these other techniques given that they are widely used and accepted. However, this is only a thought and entirely up to the analysis team.

17. You might like to consider using this program http://www.dagitty.net/ to map the causal modelling of your variables to determine which variables you need to control for in the model and which variables are not necessary.

18. Is it possible for you to include national rates of unemployment (as a ratio) at the times of data collection for inclusion in the modelling??

Results

19. Do you think the modelling would be improved if at step 1: (or model 1) all confounders, alongside baseline mental health were included, and then step 2 (model 2) included the addition of “unemployment type” variable.

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, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests’ below