Reviewer’s report

Title: Factors influencing women’s sex work in a Lebanese sample Results of a case-control study

Version: 0 Date: 11 Nov 2019

Reviewer: Teresita Rocha-Jimenez

Reviewer's report:

BMWH

Abstract and Background

Recommend avoiding generalizations such as "SW is viewed as a public problem" is this everywhere? Is it a public health problem? A moral problem?
Some of the issues associated SW could be cited to avoid this type of affirmations.

The background section includes many themes not in-depth discussed and several of the affirmations included are not properly sustained or referenced. For example, the association between substance use and sex work has only one reference and this only refers to addiction but not coercion of substance use by someone else. Bar owners, managers, and clients may pressure sex workers to use substances. This theme should be included and considered in the analysis.

Furthermore, it is not clear where the studies cited were conducted. If this is in Lebanon or similar countries this should be stated. It is problematic to make affirmations of structural complex factors such as violence, absence of parental supervision, depression, etc. specifically if these are being analyzed to determine a pathway into the sex trade.

An in-depth revision of the background is recommended so it is properly justified why you are including and analyzing the independent factors that you used. Furthermore, details of the sex work context in Lebanon are needed to understand why the participants are entering into the sex trade and how they may be different from the control group.

Authors affirm:"sex work offends cultural-moral standards and spreads sexually transmitted diseases". However, there are no studies cited and these affirmations include stigmatizing language. These affirmations are not true in the entire world and male clients are often the ones responsible for the transmission of HIV and other STIs. It is recommended to increase the quality of the references, studies, and to use a neutral language. Suggestions include not using affirmations or generalizations, find papers and studies that have found such associations and cite them.

Authors affirm that there is no study of this nature but no studies or references are supporting this. It is methodologically impossible to prove that some elements are leading to something else (causality) if you are not conducting a longitudinal study. Revising the aim of this study is critical.
Methods

It is not clear why you are analyzing the independent factors included in this study (trauma, partner abuse, etc.). In the background there is only one paper cited that found association of child abuse with sex work among a cohort of drug users. However, it is not clear why you chose these factors and not other relevant factors (SES, education, underage entry, etc.)

An important element that is not included in this paper is the socioeconomic status of the participants. The background mentions that women engage in return of money but this element is not analyzed anywhere in the analysis. Socioeconomic status should be included in the final model.

This study design is highly problematic to understand the pathway to sex work. First, because there are innumerable variables that could have played into such outcome for example coercion, underage entry, sex work in the family, etc. A longitudinal study would have been more suitable to study this and even so it is hard to compare pathways to such a complex activity.

Secondly, because these participants' study were recruited in prison there may be other complexities that are not being considered in this analysis. This should be clearly stated in the limitation section and an extended description of the circumstances of how these participants were invited to participate should be included. There are almost no details of how participants were invited to participate in this study. There are no details of how they were invited, by whom, how they were compensated if they had the option of not participating, who did the interviews, how their confidentiality was protected, if they had access to psychological help as they were being asked about traumatic experiences, etc.

How was sex work defined and how women self-reported such activity?
There are no details of the temporality of the scales, alcohol and drug use, was this in the past month, past year, was any of this diagnosed by a Doctor? Alcoholic is not an academic term and the scale used does not assess such behavior. Revise.
Is the anxiety measured for current anxiety? Anxiety may be present among all of the participants as they are being interviewed in prison. This should be considered and included in the limitations.

Results

Alcohol use could be associated with stress, anxiety score, depression, psychological child abuse, etc. Thus this may be mediating the association between SW and all of those independent variables. This should be analyzed (assess for interactions, multicollinearity) and stated in your analyses. As it is currently presented, it arises many statistical issues as well as analytical. It is problematic to not control for education, age, SW age entry, SES. These variables should be all presented and considered in the final model.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.
I declare that I have no competing interest below.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.