Reviewer's report

Title: Understanding Resilience of Female Adolescents towards Teenage Pregnancy: A Cross-sectional Survey in Dar es Salaam, Tanzania

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Reviewer: Anna Kågesten

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Full Title: Understanding Resilience of Female Adolescents towards Teenage Pregnancy: A Cross-sectional Survey in Dar es Salaam, Tanzania

Thank you for the opportunity to review this manuscript, which focuses on reproductive resilience - a very understudied and interesting topic. This quantitative study investigated different domains of resilience and its association with "competence" to avoid or deal with teenage pregnancy among adolescent females aged 15-19 in Tanzania. The key strengths of the MS include its theoretical grounding, representative sample and wide range of different aspects of resilience explored. In particular, I found the focus on positive aspects of adolescent sexuality and young peoples' resilience very encouraging.

While interesting, the MS requires a lot of clarification especially around the conceptualization and description of the measures in the Methods (simply not clear). The organization of Results vs. Discussion is also not in line with a "standard" way of writing a quantitative public health paper (although I am not sure about the Journals' preferences).

Below I have outlined key major points as well as minor points that should be addressed before the article can be considered acceptable for publication.

MAJOR POINTS:

Study setting: A specification of the context is needed early in the introduction; whether these SRH threats are in the context of LMICs and in sub-Saharan Africa specially. Young women in many other settings (high-income) do actually not have a high risk of dying in childbirth. Please
also clarify in which settings a rapid urbanization is taken place. It might be a good idea to focus on Tanzania or Eastern Africa from the start.

Conceptual framework: In the second paragraph of the introduction, you make the case that adolescent SRH including pregnancy should not (only) be viewed from a negative perspective, especially in settings with a "non-Western" conceptualization of adolescence. This does not really line up with the conceptual framework viewing teenage pregnancy as a threat. Is it also possible that 15-19 year old girls in the study could consider teenage pregnancy something positive? This might be the case if girls are married, which is not really discussed in the introduction. A further elaboration on how teenage pregnancy is viewed, beyond the public health assumption that this is a threat, would strengthen the paper. There is a lot of interesting work on this topic from the US, for example Kathy Edin's work on how young women in urban poor areas choose early motherhood as a way of making a life in lack of other opportunities.

Sample and sampling: What was the required sample size for the study (same as the actual sample N=750), and what was the population size from which the sample was drawn? Were sample weights considered given that this is survey data; if not, why?

Also, clarify whether all households with adolescents 15-19 were visited, or whether it was all adolescents with adolescent females. If more than one adolescent female aged 15-19 was present in the household, were all or one included (if one, how were they selected)?

Measures: The Methods is missing a section on Measures. As currently written is not clear how the different concepts/domains of competence and resilience were measured, and which were the outcome and independent variables respectively. It is specified that "a cumulative competence scale was developed to assess reproductive resilience". This sounds like competence is measuring resilience, but according to the conceptual framework, competence is an outcome of resilience, and resilience is measured through different forms of capital. This is somewhat confusing and a clearer definition of the measures is needed. It almost sounds like the outcome (competence) consists of scores based on the independent variables (different capitals)...? Please clarify. Table 1 is really the only presentation of how these variables were measured, and the information is rather scarce. What were the response options for "what kind of sources" and "whom do you turn to"? Fixed or open-ended? 2.1 and 2.2 also seem very similar; what if someone listed a friend under question 2.2 as an information source? In Table 3, it seems like there is one composite measure of the different capitals - is this ANY source of the ones listed below the main type of capital?
I also wonder whether respondents were able to understand the question assessing "competence" as listed in Table 1 - or whether there several questions for each type of capital (and with what response options (e.g. "a lot", "a little", "not at all" or merely yes/no). The wording seems a little academic to use in a survey; did respondents really understand what was referred to by, for example, "cultural support"?

Given that competence was measured on a 10-point scale, information about how was the scale developed is warranted. It would be helpful to know whether you conducted an exploratory factor analysis to see if and how the items hang together, and the alpha coefficient should be given.

Furthermore, the scale was used to classified high competence as ≥50%; does this imply scores 5 or higher, or does it refer to the percentile distribution of the scores in the sample (i.e., cut at the median score)? It is important to distinguish (and provide a rationale for) whether these scores are relative to the group distribution, or to the scale. Did you also explore other cut-off points, and if so what were the results? Please describe whether the distribution was skewed or roughly normal as this would impact the analytic methods.

Analyses: Model selection seems to have been based solely on bivariate significance. What was the rationale for this decision? In general, scholars do not recommend to rely only on significance but to think broader including factors that have been found important in the past (for example, always include age even if not significant) or which are hypothesized to be important. For example, you could very well have included the variable "economic capital" (line 385) - just because it was not significant in the bivariate model is not a reason to exclude it. Since you do not show the bivariate results, the reader has no way of knowing how these variables were related. Also, how come economic capital does not have a summary measure included for pregnant girls?

I would recommend to include the bivariate results as an Appendix, and to present the % distribution of the different capitals (some may be NS due to their small number of respondents saying "yes" to this variable).

For Table 3, please also clarify whether the multivariate regression adjusted for sociodemographic characteristics such as age and relationship status. If not, those factors might have biased the results.
Results vs. Discussion: Be careful about what you include in the Results, and what should go in the Discussion. This is not a typical article structure for a quantitative public health paper. Usually the Results section presents what you found, and the Discussion adds comparisons with other studies and contrast findings to societal contexts, etc. The current structure makes it somewhat difficult to follow the results from THIS study as the results are mixed with discussion from previous studies. I am not sure whether this format is ok with the Journal, but since most readers likely will be used to a more "traditional" structure I would recommend separating the Results from the Discussion. This is, however, up to the Journal.

Also think about how findings are presented, and what is being compared. For example, "talking to peers significantly contributed to the competence of girls who had not been pregnant [OR=1.71, 95% CI=1.18 to 2.48, p=0.004]". Compared to what? Not talking to peers? As noted earlier, a section that defines the independent variables (resilience domains) and its measures is needed in the Methods.

Finally, be careful about making conclusions about developmental processes given that your data is cross-sectional (e.g., lines 447-449). You are merely comparing two different groups (never and ever-pregnant), and other factors than resilience might account for the differences in their "competence scores".

MINOR POINTS:

* Define the age range of "young people", "youth" and "adolescents" used in the two first sentences. I see that you have included a definition in the Methods, but it would be better to just use "adolescents" in the introduction since this is the terminology you use following the Methods. Would also suggest using "adolescent women" instead of "young women" to be consistent.

* Line 55: "not enough is know about how the country's youth experience and cope with sexuality and teenage pregnancy". This sentence does not read well, please rephrase.

* Line 66-67, consider removing "threat" as this put the aim in a negative connotation, whereas the focus is suppose to be positive. I would just say, "for dealing with teenage pregnancy and childbirth". Perhaps also add "avoiding" or "preventing" before dealing.
* Please give the mean age of sample in the Abstract.

* Consider defining "high competence" in the Abstract.

* Cultural capital ORs - what is the reference in the Abstract? High vs. low?

* Line 82, consider adding "to prevent or deal with.."

* Line 109: "young" people?

* Lines 133-136: I would just say what the study focused on out of these SRH topics, and delete what it did not focus on (implicit since you list all topics)

* Consider moving paragraph on the different study sites and the design on lines 137-147 to the Design section in the Methods, and just state briefly what the aim of the current study is in the introduction.

* It seems like the terms "capacities" and "competence" are used synonymously, which is a little confusing given that they are not (see lines 175-180).

* Lines 180-185: this seems like a definition of how the outcome was measured, which belongs in the Methods (under an added Measures section).

* Lines 170-171: This sentence is not clear. What definitions simplify Bourdieu's work? Isn't this Bourdieu's work? I would delete this last sentence.
* For ethical clearance, if adolescents were under 18 they technically cannot provide consent, but only assent to participate (check terminology).

* Since this is survey data, you are only able to assess what the adolescents reported - not their actual experiences. Therefore, try to use "reported" as much as possible. For example, on line 290 16% reported that they were pregnant or already mothers. It would also be good to know the actual percent breakdown between these two different groups - how many reported being pregnant, and how many were mothers?

* Line 483: Please clarify that it is among adolescent females.

* Avoid using words such as "many" without quantifying what is meant by this.

* Line 489: Strengthening resilience factors?

* Table 1: why list the measures of capacities if these were not used in the analysis?

* Table 2: some cells have very small numbers, please consider collapsing into categories (e.g., 15-17 years, 18-19 years).

* I would recommend splitting up the first long paragraph of the discussion into several paragraphs, one for each key finding. As currently written it is a little difficult to follow.

* Given that this is a quantitative paper, readers might not be familiar with some terminology such as "emic". Try to avoid jargon and make sure to define and clarify terms.
* It is true that qualitative research is very important to complement and further clarify your findings. However, given that the parent project included qualitative research, how could these findings be used to situate what you found in the current study?

* Overall, pay attention to use of active and passive tense throughout the manuscript. There also remain grammatical errors that need to be corrected.

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Please indicate how interesting you found the manuscript:

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

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