Reviewer's report

Title: Child marriage among boys in high-prevalence countries: an analysis of sexual and reproductive health outcomes

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Reviewer: Anita Raj

Reviewer's report:

This paper examines associations between sociodemographics and early marriage of boys across 15 countries with the highest rates of boys' child marriage, for males aged 20-49. Prevalence by age cohort was reviewed to assess change in prevalence over time. The paper also examines whether early marriage is associated with key sexual and reproductive health indicators including HIV knowledge, family planning knowledge and use, and number of children fathered. For males 40-49 age, fathered births exceeding ideal family size was also assessed as an outcome variable. The paper offers key insights into early marriage of boys.

This paper is well-written with a clear presentation of analytic approach and findings. I offer a few recommendations which may strengthen the paper.

Abstract:

* I would include the prevalence of early marriage of boys 20-24 in the abstract findings to help bring greater recognition of the issue to potential readers.

* I prefer to have data findings in the abstract, but if this is the convention of the journal that is fine. I believe papers are more likely to be explored when the abstract provides the ORs.

* The interpretation could be made more compelling if it reflected on the value of findings for program and policy, rather than simply saying more research is needed.
Introduction

The objective suggests a very descriptive paper rather than an exploration of hypotheses, but the introduction suggests that the paper is hypothesis generated, with expectations that poorer, less educated and rural boys will be more likely to marry early, and that boys marrying early are less likely to report HIV and family planning awareness and use. It may be useful to reframe the introduction toward justifying these hypotheses.

Method

* Data were from MICS and DHS. It may be useful to explain why you used a given one of these for a given country. I assume it was to allow for use of most recent data available.

* Measures and Analyses

o I appreciated that prevalence by age cohort was included, allowing for prevalence among males 20-24 to provide a more up to date indication of use of the practice.

o Could you provide data on <15 at marriage, and could you also show the same for wife's age at marriage? Is there data on wife's age at marriage? If yes, is early marriage for males associated with early marriage (and maybe even very young early marriage) for females? This may be a useful variable to consider

o Why wasn't rural residence included as a covariate in multivariable regressions for SRH outcomes?

o Could you run a statistical test on difference in early marriage of males by age cohort? I agree that there appears to be no meaningful reduction, and it would be good to indicate that statistically. Would there be benefit to including pooled analyses to test this, if cell sizes within country are too small to capture effect? Pooled analyses, as well as country specific analyses, may be useful across the paper, if you shift to hypothesis testing.

Results

* You note in your results that in eleven countries, child marriage prevalence appears higher among the youngest men (20-24) than the oldest (45-49). This suggests an increase. Is this accurate?

* Table 1- add year of survey in column 1
Discussion

There is little reflection on findings in the context of the broader literature, which offers parallel findings for girls, nor are country level differences explored to provide further insight into early marriage of boys by context. Interpretation of reasons for key findings, such as inadequate reductions in the early marriage of boys, would add to the value of the paper.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

Yes

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

Yes

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 am able to assess the statistics

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