Reviewer’s report

Title: Evaluation of a Reproductive Health Awareness Program for Adolescence in Urban Tanzania - A Quasi-experimental Pre-test Post-test Research -

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Reviewer: Kathleen F Norr

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“Evaluation of a Reproductive Health Awareness Program for Adolescents in Urban Tanzania.”

I was not a previous reviewer, but I think that the current study has some major gaps, as noted below.

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Background – there is a serious disconnect between the literature review and the focus of the paper. The literature review focuses almost exclusively on pregnancy and its impact on girls. But an emphasized advantage of the study is the inclusion of adolescent men – the literature on early fatherhood is not clear. There is also a complete absence of any discussion of other reproductive health interventions, yet many have been done in Tanzania. There is one sentence that states prior studies “have focused largely on STDs, motherhood, sexuality and family planning programs.” How do the authors view these other HIV/STI prevention programs – and how successful were they? Parent communication is an outcome variable but it’s not discussed at all in the literature review.

There is really insufficient discussion of the content of the intervention - how is what they did different from the other programs in Tanzania in terms of content? Do they not discuss STDs? Did they have special information about adolescent pregnancy in the intervention?

Methods

Design: I searched really hard and could not find the time interval between the pretest and posttest – except in the discussion where it says ‘immediately after’ – meaning in the same day or what?

Both the intervention and the measures are insufficiently described.

For the intervention, the objectives is a mixed up sentence “enhance understanding of”:

1) “the importance of reproductive health (isn’t it the facts of sexuality and reproduction?"

2) decision making knowledge – it’s not clear what understanding of decision making knowledge would be
3) skills and attitudes that will help them...in delaying sexual activity – what sorts of skills and attitudes, how is this made relevant for those who’ve already begun?

4) assist in considering unwanted situations including pregnancy, STDs and pregnancy – what does it mean to understand /assist in...

Measures Saying questions were developed from the precede-proceed model is not sufficiently clear as to why or in what way. Did this model also guide the intervention? Knowledge can be fixed because the items are in Table 3, they could refer the reader to that. In particular what attitudes are being measured-attitudes are so different. The biggest issue is what they label as practices. This label, as far as I know, always refers to behaviors, or if reported, that’s indicated too (reported practices). This appears to be something different, more like intentions – it’s hard to imagine a behavior that is agree/disagree. Communication with parents and whether experienced sex aren’t even mentioned as measures (and of course the latter cannot really be “undone” with an intervention). So either a table of variables and operational measures with sample questions, scoring, alphas etc. or the instrument as an appendix is needed. It is surprising that there are no alphas reported.

It is not stated in the methods what the process evaluation section is doing – who were these done with, what were the results – was this before or after

Analysis – not clear are the pre-post comparisons done using paired tests or not, if not why not? Also describes pre-post comparisons for parent communication but data are not presented that way. Experience of sex is compared by gender, which is not stated.

Results – it is not always clear WHAT the results are for. I don’t understand why the individual Knowledge items are presented but not the individual ‘attitudes’ and practices. I would much rather see that than the other data presented. Tables 3-6 and Fig. 1-2 are not clearly labeled as to whether data are pre or post. The finding on forced sex is shocking – is any more information about this available? I would put the sexual activity with the background factors as I think this is pretest data.

The data regarding communication about daily life and sex and HIV are a surprise as they are not mentioned at all earlier. Regarding parent communication, you don’t show pre-post test data for boys, so hard to interpret. What is important here, when no pre-post comparison is done. I would also point out that these differences are small although significant. This is a whole different question really from the question about the pre-post as you aren’t really changing parent communication.

Discussion:

Regarding the effectiveness (you really mean efficacy), I would stress that you got important change in knowledge and some other factors after just a short intervention. How long after the class was the post – that will affect how much you can say here. Again, problem with lack of citations to the numerous studies in this area done in Tanzania and other African countries (at least 5 review articles) – the 2 you do cite are perhaps not the most relevant.
Discussion of parent communication – some of the literature review might go in background. Not sure that the interventions for parents are relevant for this study as you have no evidence related to this.

Discussion of sexual experience – I think this is way too long given that you don’t have any detailed evidence regarding the sexual violence.

Limitations – I think the question regarding retention is very important and should be emphasized more. There is a literature on this and on reporting of sexual activities that you may want to refer to.

I have never seen a section called Future Plans before – seems like more of an implication than discussion. I am quite sure that you do not have sufficient evidence of efficacy to justify disseminating throughout the country. Is this equally effective as other programs, longer programs etc. I think you can briefly suggest 2 and 3 as things you’ve shown a need for, but I think it’s very unrealistic to think that you can do all 3 of these, especially when you have nothing to base 2 and 3 on from this study.

The conclusion could be briefer.

Level of interest: An article whose findings may be important to those with closely related research interests.

Quality of written English: Not suitable for publication unless extensively edited.

Statistical review: Need to clarify what was done, may need consultation statistician.

**Level of interest:** An article whose findings are important to those with closely related research interests.

**Quality of written English:** Not suitable for publication unless extensively edited.

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

no competing interests