PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	"I'm here to save my life:" a qualitative study of experiences navigating a cryotherapy referral system for human papillomavirus-positive women in western Kenya
AUTHORS	Huchko, Megan; Adewumi, Konyin; Oketch, Sandra; Saduma, Ibrahim; Bukusi, Elizabeth

VERSION 1 – REVIEW

REVIEWER	Mark Gaspar Post-Doctoral Fellow, Dalla Lana School of Public Health, University of Toronto, Canada
REVIEW RETURNED	12-Mar-2019

GENERAL COMMENTS	Review: "I'm here to save my life:" a qualitative study of experiences navigating a cryotherapy referral system for human papillomavirus-positive women in western Kenya March 12, 2019 The paper is a solid contribution to the literature. While the introduction and discussion/conclusion are strong, there are some elements in the methods and results section that need to be addressed before publication. Introduction The introduction is clear and well-written. Consider adding some specifics about the state of the qualitative literature on this topic/why qualitative research on this topic is needed. Materials and Methods The authors mentioned that they used "grounded thematic analysis" but do not offer any citations. It is unclear to me if they are referring to grounded theory, thematic analysis, or some hybrid of the two. If it is grounded theory, the authors would need to explain how an inductive approach is compatible with the use of CFIR and a standardized codebook. The general length of time of the interviews should be provided. The interviews were described as "in-depth" (no citations were used to classify the method), but the results indicate that 273 interviews were conducted. That is a lot of qualitative data, especially because they were coded twice. Can the authors comment on how they were able to manage the sheer size of that much qualitative data for this specific analysis? While some could

argue that more data is better, were this many in-depth interviews needed? Was saturation not reached beforehand? If not, why not? Moreover, the results paint a pretty coherent narrative without any contradiction or tension among the women's accounts— were there really no differences of opinion or stark contrasts across 273 interviews about screening and treatment?

Results

The data collected is rich and generally well organized.

It can be a bit distracting how the quotes are placed within the results – that is, they are not generally integrated but just dropped in with no context of who is making this comment (no socio-demographic or clinical info of the participant).

In some cases, there is not a smooth transition between the description and the quote. For example, the authors write:

Women wanted to publicize that treatment was free, easy, quick and important for women's long-term health.

"When the [positive] results came I was surprised. I then took time and went to my friends who also were HPV positive and shared with them, we encouraged each other and set dates for coming for treatment."

While we see in the above quote an example of women encouraging each other, this doesn't indicate that "women wanted to publicize that treatment was free, easy, quick"
I am unsure what this means:

"Although knowledge statements were common...".

Can the authors clarify the relationship between the women being very knowledgeable about HPV and cancer but also having a lot of "misperceptions". Was their knowledge/literacy actually high or instead their general awareness of HPV related cancers?

Do the following quotes fit under the section about knowledge and perceptions or about something related to gender norms and sexual negotiation/power? (There does seem to be a strong theme about gender roles across many categories that could perhaps be its own section) :

"It is said that men are the one who infects us, and us still being a young couple we are bound to have sexual relations, what can be done so to men so that they do not spread the disease?"

"Supposing I have a co-wife, how will I know that she has also been treated so that we can all be free and not use condoms?"

This comment maybe contradicts the first description in the results regarding the baseline knowledge of the participants:

"Many women were under the impression that they would be given drugs to treat HPV, like treatment for malaria or HIV management."

	How does the following quote link to the category of "Treatment Experience"?: "Some women believed that if they were infected with HPV, they would not be able to give birth, or they should not get pregnant because the fetus would be infected with HPV. Related to the fear of infertility, women reported believing that family planning methods caused their positive HPV result or would cause cervical cancer."I thought that I had cervical cancer because since I went for family planning [IUCD]. I have not been feeling okay in the uterus." I am unsure how the following examples "indicate either a false perception about a widespread lack of male support": "Male support was generally described as financial support for transportation, with a minority naming encouragement or moral support for treatment." Discussion and Conclusion These are clear and strong. Given that "empowerment" is such a key finding and dimension for facilitating access to treatment, I feel that the section "Treatment and Empowerment" can be more fleshed out in the Results. There needs to be more evidence of and explanation of how empowerment was such a strong theme associated with treatment. I am curious if treatment was actually an empowering experience, or if from the interviews empowered women seemed more likely to access treatment—this could be significance for thinking around health promotion efforts, and again, the important role of gender and healthcare access in these women's accounts.

VERSION 1 – AUTHOR RESPONSE

Reviewer's Comments to Author:

Reviewer: 1

Introduction

Comment: The introduction is clear and well-written. Consider adding some specifics about the state of the qualitative literature on this topic/why qualitative research on this topic is needed.
Response: We have added a sentence to the last paragraph of the Introduction section to describe the state of the literature: "Given that HPV-based strategies are relatively new to LMICs, there is very little qualitative data exploring women's experience with treatment."

Materials and Methods

Comment: The authors mentioned that they used "grounded thematic analysis" but do not offer any citations. It is unclear to me if they are referring to grounded theory, thematic analysis, or some hybrid

of the two. If it is grounded theory, the authors would need to explain how an inductive approach is compatible with the use of CFIR and a standardized codebook.
Response: This should have said "thematic analysis" and has been corrected.
Comment: The general length of time of the interviews should be provided.
Response: Interviews lasted between 15 and 25 minutes. This has been added to the text.

Comment: The interviews were described as "in-depth" (no citations were used to classify the method), but the results indicate that 273 interviews were conducted. That is a lot of qualitative data, especially because they were coded twice. Can the authors comment on how they were able to manage the sheer size of that much qualitative data for this specific analysis? While some could argue that more data is better, were this many in-depth interviews needed? Was saturation not reached beforehand? If not, why not? Moreover, the results paint a pretty coherent narrative without any contradiction or tension among the women's accounts— were there really no differences of opinion or stark contrasts across 273 interviews about screening and treatment?
Response: I would definitely agree that this many interviews were not necessary to reach saturation, and we were hoping to capture more variation between the women in different communities coming for treatment. In future studies, we would purposively sample women who have come in for treatment. Because of the delay in obtaining the transcriptions and translations, we were not able to code and evaluate for saturation in real time resulting in oversampling of this population.
We did see some differences of opinion among this group, although the sample consisted only of women who had been able to obtain treatment, so their understanding of HPV and cervical cancer, decision-making and ability to overcome barriers to treatment may have been more aligned than a heterogeneous group that included women who were lost-to-follow-up. Many women had misperceptions about HPV, about the nature of treatment, nature of partner support and identified barriers.

Results

Comment: The data collected is rich and generally well organized. It can be a bit distracting how the quotes are placed within the results – that is, they are not generally integrated but just dropped in with no context of who is making this comment (no socio-demographic or clinical info of the participant). In some cases, there is not a smooth transition between the description and the quote. For example, the authors write: "Women wanted to publicize that treatment was free, easy, quick and important for women's long-term health. 'When the [positive] results came I was surprised. I then took time and went to my friends who also were HPV positive and shared with them, we encouraged each other and set dates for coming for treatment.' While we see in the above quote an example of women encouraging each other, this doesn't indicate that "women wanted to publicize that treatment was free, easy, quick"
Response: All of the participants were women seeking treatment at the same facility, so we made the decision not to identify women further by age (in previous publications, journals have requested to remove age-related data).
Regarding the quote about encouraging free treatment, we agree that it does not fully follow the narrative, so we have rewritten that section to introduce the quotes, and added the following additional quote:

"I would tell her it is important for her to know her HPV status because she would be able to know if she is at a high risk of developing cervical cancer…Treatment is good. It is free and very easy. There is no pain, so it is good. That is how I would encourage her."

Comment: I am unsure what this means: "Although knowledge statements were common...".
Response: We sought to describe the frequent pattern of women stating facts about HPV that they had learned from the screening program. To clarify our meaning, we have rephrased this:

“Although many women were able to make fact-based statements about HPV, and professed confidence in their knowledge, some expressed fear, anxiety and misperceptions about their positive HPV results and the association with cancer.”

Comment: Can the authors clarify the relationship between the women being very knowledgeable about HPV and cancer but also having a lot of “misperceptions”. Was their knowledge/literacy actually high or instead their general awareness of HPV related cancers?
Response: This is an important comment that we have sought to address through the change listed above, and the following change under Knowledge and perceptions of HPV positivity.
“Many women expressed confidence in their level of knowledge about the relationship between HPV and cervical cancer, and the role of treatment in protecting their health.”

Comment: Do the following quotes fit under the section about knowledge and perceptions or about something related to gender norms and sexual negotiation/power? (There does seem to be a strong theme about gender roles across many categories that could perhaps be its own section) :

“It is said that men are the one who infects us, and us still being a young couple we are bound to have sexual relations, what can be done so to men so that they do not spread the disease?”

“Supposing I have a co-wife, how will I know that she has also been treated so that we can all be free and not use condoms?”
Response: We really appreciate this comment and have moved those quote to the Male Involvement section of the paper. We’ve added the following sentence to start that section:
“Male partner involvement emerged around treatment access, post-treatment care and fears of reinfection from their partners.”
The last part of that section now includes the following narrative:
Concerns about the ability to be abstinent following treatment were echoed in some women’s thoughts about the futility of treatment in situations where they perceived little control over possible reinfection. Concerns were raised about safe relations with their husband, inability to negotiate condoms and concerns about [re]infection among co-wives.
“It is said that men are the one who infects us, and us still being a young couple we are bound to have sexual relations, what can be done so to men so that they do not spread the disease?”
“Supposing I have a co-wife, how will I know that she has also been treated so that we can all be free and not use condoms?”

Comment: This comment maybe contradicts the first description in the results regarding the baseline knowledge of the participants:

“Many women were under the impression that they would be given drugs to treat HPV, like treatment for malaria or HIV management.”
Response: We have added the following sentence to bring out the tension in these contradicting responses: “These comments often contradicted women’s assertion that their knowledge and understanding of HPV was good.”

Comment: How does the following quote link to the category of “Treatment Experience”?:

“Some women believed that if they were infected with HPV, they would not be able to give birth, or they should not get pregnant because the fetus would be infected with HPV. Related to the fear of infertility, women reported believing that family planning methods caused their positive HPV result or would cause cervical cancer.“I thought that I had cervical cancer because since I went for family planning [IUCD]. I have not been feeling okay in the uterus.”

Response: We have separated this section under a new sub-heading Unanswered Questions, as these were responses to a question about remaining questions after undergoing the counseling at the time of screening, notification and treatment.

Comment: I am unsure how the following examples “indicate either a false perception about a widespread lack of male support”:

“Male support was generally described as financial support for transportation, with a minority naming encouragement or moral support for treatment."

Response: We have changed the wording in that statement to clarify our meaning: “Women’s comments indicate a perception about lack of male support for other women in the community, while descriptions of their own experience suggest that male support was a key factor in their ability to obtain treatment (as all the women in this group had successfully obtained treatment).” We have also added a sentence to the discussion to say “the role of partner support needs to be explored among women who were not able to obtain treatment.”

Discussion and Conclusion

Comment: These are clear and strong. Given that “empowerment” is such a key finding and dimension for facilitating access to treatment, I feel that the section “Treatment and Empowerment” can be more fleshed out in the Results. There needs to be more evidence of and explanation of how empowerment was such a strong theme associated with treatment. I am curious if treatment was actually an empowering experience, or if from the interviews empowered women seemed more likely to access treatment—this could be significance for thinking around health promotion efforts, and again, the important role of gender and healthcare access in these women’s accounts.
Response: I agree that there could be a combination of both scenarios—the process of successfully navigating treatment could be empowering and empowered women were more likely to successfully navigate treatment. Because we are looking at the latter, we have changed the wording and augmented the quotes in the “treatment and empowerment” section of the results.

Although this group of women who were able to overcome barriers and access treatment for their HPV likely had higher baseline levels of empowerment than women who did not get treatment, any women expressed a sense of personal empowerment from the process of either undergoing treatment or from gaining an understanding of the impact of HPV on their health. This may have played as a key factor in overcoming barriers to treatment.

VERSION 2 – REVIEW

REVIEWER	Mark Gaspar Post-doctoral Fellow University of Toronto, Canada
REVIEW RETURNED	24-Jun-2019

GENERAL COMMENTS	As per my last review, I believe this is strong contribution to the literature. A few points to consider: There is no mention of the HPV vaccine in this paper, even though it is an important part of HPV-associated cancer and precancer care. Is it being offered to any of these women?

	The acronym LEEP is introduced on page 6 but isn’t explained. A citation is needed for the framework used for analysis: thematic analysis. Some explanation as to why this constitutes thematic analysis is also required. Ethics and the informed consent process need to be described in the methods. I will highlight once again that there was a very large number of interview data collected, but no evidence in the results of major tensions or different trends among the sample, which is something that needs to be explained in the analysis or discussion section. Page 8, line 19: This is confusing. Does this mean that patients were not recruited into the focus groups because they did one-on-one interviews? Some background information (age, treatment history), should be included with each quote. The results and/or methods, should include more of this socio-demo background in the sample (i.e. race, age, education, income of the sample). p. 9 line 45: The meaning of “adequate explanation” is not clear. Adjust sentence to clarify. p. 13: It is not clear how male partner involved “emerged”. Please clarify this first sentence. Can it be explained why this cervical screening program was “community-based”? It is not currently evident. I imagine this has to do with the role of the community health campaigns (CHCs). The nature of these can be described a bit further.

VERSION 2 – AUTHOR RESPONSE

Response to Reviewer Comments

1. There is no mention of the HPV vaccine in this paper, even though it is an important part of HPV-associated cancer and precancer care. Is it being offered to any of these women?

Response: HPV vaccination is indeed key to prevention but has not yet been introduced in Kenya (hopefully July 19, 2019) and will be limited to 9 year old girls at this point. I have added a phrase to the first paragraph.

2. The acronym LEEP is introduced on page 6 but isn’t explained.

Response: The full name for LEEP has been added.

3. A citation is needed for the framework used for analysis: thematic analysis. Some explanation as to why this constitutes thematic analysis is also required.

Response: We have amended the sentence to better describe the benefits of thematic analysis, and added the following citation:

Using thematic analysis, one member of the research team created the codebook using both the IDI guide for structure and four sample interviews to identify additional themes that together facilitated a more nuanced interpretation of the data.

Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psych. 2006;3(2):77-101.

4. Ethics and the informed consent process need to be described in the methods.

Response: We have added the following description to the last section of the methods (patient and public involvement): This protocol was approved by Institutional Review Boards at the Kenya Medical Research Institute, Duke University and the University of California. All participants gave their written informed consent to participate in the study prior to data collection. For low-literacy participants, consent was affirmed with thumbprint.

5. I will highlight once again that there was a very large number of interview data collected, but no evidence in the results of major tensions or different trends among the sample, which is something that needs to be explained in the analysis or discussion section.

Response: We have addressed this in two areas of the discussion. In the first paragraph, we have added a final sentence: “Women’s responses were surprisingly consistent throughout the interviews, with some level of disagreement emerging around the importance of male involvement in their own ability to seek treatment compared to their perception of how it impacted other women.”

In the paragraph on limitations, we have added: The current study is missing the voices and experience of women who were unable to access treatment, who were the majority of women screened; this may contribute to the relative homogeneity of observed themes

6. Page 8, line 19: This is confusing. Does this mean that patients were not recruited into the focus groups because they did one-on-one interviews?

Response: The focus group discussions were carried out prior to the study, to assist with planning. The guidelines for this section asked authors to describe the involvement of patients in recruitment. For the actual study, patients were not involved in identification or recruitment of potential participants, as all women undergoing treatment were approached for potential participation.

7. Some background information (age, treatment history), should be included with each quote. The results and/or methods, should include more of this socio-demo background in the sample (i.e. race, age, education, income of the sample).

Response: We have included the age of women providing the quotes. All were HPV positive, none had prior treatment. We have also added demographic information to the start of the results section: "The average age for participants was 37.3 yrs, for 216 (79.1%), primary school was the highest education completed, and 206 (75.4%) were married or had a current partner." In this area of the country, almost all women seeking care lived below an income of $2/day. While all women are black Africans, there are tribal differences. The majority, if not all women in the study likely identified as Luo, however given that the study took place during a time of heightened tribal tensions (pre-elections), we did not think women would feel safe or comfortable answering that question.

8. p. 9 line 45: The meaning of "adequate explanation" is not clear. Adjust sentence to clarify.

Response: We have added "adequate explanation of procedure and recovery.

9. p. 13: It is not clear how male partner involved "emerged". Please clarify this first sentence.

Response: We have changed that sentence to read: Male partner involvement was described as it related to treatment access, post-treatment care and fears of reinfection from their partners.

10. Can it be explained why this cervical screening program was "community-based"? It is not currently evident. I imagine this has to do with the role of the community health campaigns (CHCs). The nature of these can be described a bit further.

Response: We have added an explanation of the community components of the program (offering screening through campaigns in women's villages, and having community-health volunteers provide outreach and education). We are also adding a citation that further describes the community-health volunteer aspects

VERSION 3 – REVIEW

REVIEWER	Mark Gaspar University of Toronto, Canada
REVIEW RETURNED	01-Jul-2019

GENERAL COMMENTS	The article summary describes the project as ‘exploratory’, but the project is not described this way in the paper. This many in-depth interviews does not seem like an exploratory project, so I would remove this from the summary.