

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Barriers to cervical cancer prevention in rural Cameroon, a qualitative study on healthcare providers perspective
<b>AUTHORS</b>	Roux, Amandine; Kenfack, Bruno; Ndjalla, Alexandre; Sormani, Jessica; Wisniak, Ania; Karoline, Tatrai; Vassilakos, Pierre; Petignat, Patrick; Schmidt, Nicole

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Johanne Greibe Andersen Aarhus Universitet
<b>REVIEW RETURNED</b>	01-Nov-2020

<b>GENERAL COMMENTS</b>	<p>Dear authors,</p> <p>Congratulations on a good paper on an important topic. This is very good and interesting work. My review of your paper contains both some general comments and some very specific comments and suggestions for improvements of your paper prior to its publication.</p> <p><b>GENERAL COMMENTS</b></p> <ul style="list-style-type: none"><li>- English language revision of the whole paper is needed before publication.</li><li>- Inconsistent use of abbreviations: e.g. HCP or healthcare providers? / cervical cancer or CC? focus groups or groups or FG? Please go carefully through the whole paper and make sure to introduce the abbreviations when the terms is used for the first time and then ensure consistant use of the abbreviation after that. Thank you.</li><li>- Please consider if "Self-HPV" is the correct term. WHO uses the term "self-sampling for HPV", see: <a href="https://www.who.int/reproductivehealth/self-care-interventions/human-papillomavirus-testing/en/">https://www.who.int/reproductivehealth/self-care-interventions/human-papillomavirus-testing/en/</a> Use the correct term throughout the paper.</li><li>- Both the terms "traditional chiefs" and "local chiefs" are used for the same ting, please choose one definition throughout the paper to avoid confusion.</li><li>- Results-section: In the text I suggest you delete references to participants (e.g.: (G2PL)) and mention only directly after a quote which participant said that. Please also be aware that oftentimes the reference to a participant after a quote is missing. You should make sure to be consistent throughout the text and quotes.</li><li>- Discussion-section: Consider to structure the discussion-section according to the four main themes identified in the study. The paper and discussion could benefit from a more strict structure in this section to improve the understanding and importance of the four themes identified in the study. Thank you.</li></ul>
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	<p><b>SPECIFIC COMMENTS</b></p> <ul style="list-style-type: none"> <li>- page 3 of 23, line 26: according to whom (the health care providers) does the patients have a favourable attitude towards it? The meaning here is unclear.</li> <li>- page 4 of 23, line 10: reference 1 is not the right reference for this statement regarding SSA</li> <li>- page 4 of 23, line 23-27: references are lacking for the statements in this section.</li> <li>- page 4 of 23, line 33-39: reference lacking. Which "previous studies"?</li> <li>- page 5 of 23, line 7: reference lacking regarding 200.000 inhabitants</li> <li>- page 5 of 23, line 17: reference missing where Ugandan study is mentioned</li> <li>- page 5 of 23, line 20: I believe that "interview guide" would be a more appropriate term than "study-guide"</li> <li>- page 6 of 23, line 21: "high" educational level instead of "good"</li> <li>- page 7 of 23, line 37: what is the meaning of "understand free"? Please consider if it is possible to rephrase this to make it more understandable for the reader. Thank you.</li> <li>- page 8 of 23, line 31: please add references for the "previous studies" that are referred to</li> <li>- page 8 of 23, line 52: please describe/elaborate on the meaning of "fatalism" in this context</li> <li>- page 9 of 23, line 20-29: the meaning of the last part of the quote is not clear ("starts to make noise"?). Please describe the relevance in the text</li> <li>- page 9 of 23 and page 10 of 23: after quotes the participant is not mentioned. Please look up on the lack of consistency in this regard.</li> <li>- page 10 of 23: section "Facilitators of cervical cancer screening" lacks references - please add references for this section</li> <li>- page 11 of 23, line 22-24: please be clear about under which of the four themes lack of awareness falls.</li> <li>- page 11 of 23, line 27-29: where does the statement "The lack of health literacy was noted more importantly in rural areas where education was lower and additional barriers due to financial constraints were higher." come from? Reference seems to be missing or at least the context is unclear.</li> <li>- page 12 of 23, line 7: please add references for this statement - which studies are referred to as "literature"?</li> <li>- page 12 of 23, line 13: please add references for this statement - which studies are referred to as "previous studies"?</li> <li>- page 13 of 23, line 11: please add references for this statement - which studies are referred to as "national and international literature"?</li> </ul> <p>Thank you once again many times for your important work and contribution to the field. With kind regards</p>
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<b>REVIEWER</b>	Erica Liebermann New York University, United States
<b>REVIEW RETURNED</b>	15-Nov-2020

<b>GENERAL COMMENTS</b>	This study is highly relevant to the field of global cervical cancer prevention, as we move towards HPV testing for primary screening and provides context-specific findings relevant to implementation and scale up of this method in Cameroon.
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	<p>For the most part minor errors in English, such as missing articles, do not interfere with the understanding of the science. In some places words are misused in ways that might be confusing, e.g. "ignore" when what is meant is that they lack awareness of (line 22 abstract) or "gratuity" where what is meant is that the testing is provided free of charge or at not cost to the patient. English language review/editing would therefore be helpful for resubmission.</p> <p>More description of the current program of HPV self-sampling as a screening method is needed to understand the context in which the study took place and barriers/facilitators being explored (where are women offered screening? how do they learn about screening?</p> <p>Results: There is nice use of the theoretical framework in presenting the results, but this section could be further strengthened and some terminology needs further clarification. What are "opportunity costs?" When referring to lack of knowledge and education, it is unclear whether "education" refers to formal educational level or questions of health literacy or general literacy. The finding of concerns that "positive" results would be associated with HIV infection is important and should be further explained. In fact with HPV testing we are not measuring "seropositivity." Fatalism needs to be defined: in some cultures this relates to beliefs that "it is god's will," in others it is the belief that there is nothing to be done about cancer and therefore why would I want to know about it, etc. Please clarify how fatalism is defined in this context. Under "perceived quality of care" please explain what "informative causerie" means in the quote. Further explanation is needed of how administrative procedures relate to quality of care. With regard to privacy concerns? With the quote "welcoming the patient is important..." I believe this would be better translated as "making the patient feel comfortable, " but I am not certain of the original meaning.</p> <p>Discussion:  In the discussion, and also in regard to acknowledgement of limitations, it is important to qualify that these are perceptions of the healthcare providers and not barriers expressed directly by patients. Is there some plan to explore barriers directly with women of screening age themselves?  Also, given that the first delay was found to be the most significant, and that distance to health care facilities was a major barrier, it would be helpful to spell out in the discussion the role HPV self-sampling can play in increasing access to screening and how the single visit approach can also reduce barriers to screening and treatment of precancerous lesions, ultimately needed for prevention of cancer.  Lastly the single visit approach is mentioned in the introduction and discussion, but presented only briefly in the results themselves.</p>
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**VERSION 1 – AUTHOR RESPONSE**

## **Point by point Answer**

1) Reviewer 1

### **GENERAL COMMENTS:**

- English language revision of the whole paper is needed before publication.

*This version of the manuscript was revised by a native speaker. For a better visibility, English editing revisions only do not appear in track changes.*

- Inconsistent use of abbreviations: e.g. HCP or healthcare providers? / cervical cancer or CC replaced by cervical cancer? focus groups or groups or FG ? Please go carefully through the whole paper and make sure to introduce the abbreviations when the terms is used for the first time and then ensure consistant use of the abbreviation after that. Thank you.

*The whole paper has been reviewed for appropriate use of abbreviations: we have chosen HCP and its plural HCPs, cervical cancer and CC replaced by cervical cancer and focus group replaced by FG its plural FGs*

- Please consider if "Self-HPV" is the correct term. WHO uses the term "self-sampling for HPV", Use the correct term throughout the paper.

*We agree with this comment and modified wording to self-sampling for HPV in accordance with WHO*

- Both the terms "traditional chiefs" and "local chiefs" are used for the same ting, please choose one definition throughout the paper to avoid confusion.

*Thanks for this remark. We have chosen the definition of traditional chiefs.*

- Results-section: In the text I suggest you delete references to participants (e.g.: (G2PL)) and mention only directly after a quote which participant said that. Please also be aware that oftentimes the reference to a participant after a quote is missing. You should make sure to be consistent throughout the text and quotes.

*The references to participants have been deleted, and quote to participant added after.*

- Discussion-section: Consider to structure the discussion-section according to the four main themes identified in the study. The paper and discussion could benefit from a more strict structure in this section to improve the understanding and importance of the four themes identified in the study. Thank you.

*Thank you for this helpful comment. We have made modifications in the discussion section and hope that the structure has improved from page 10.*

### **SPECIFIC COMMENTS:**

- page 3 of 23, line 26: according to whom (the health care providers) does the patients have a favourable attitude towards it? The meaning here is unclear.

*Precision has been made : "According to hcp" p 1 line 20*

- page 4 of 23, line 10: reference 1 is not the right reference for this statement regarding SSA *Indeed, it has been a mistake and was changed to reference 2 p3 line 5*

- page 4 of 23, line 23-27: references are lacking for the statements in this section.

*References has been added to reference 1 p3 line 15*

- page 4 of 23, line 33-39: reference lacking. Which "previous studies"?

*We added reference 6 p 3 line 25*

- page 5 of 23, line 7: reference lacking regarding 200.000 inhabitants

*A reference has been added page 4 line 9*

- page 5 of 23, line 17: reference missing where Ugandan study is mentioned

*The reference has been added page 4 line 16*

- page 5 of 23, line 20: I believe that "interview guide" would be a more appropriate term than "study-guide"

*Indeed, interview guide seems to be more adequate and modifications have been made accordingly page 4 line 19*

- page 6 of 23, line 21: "high" educational level instead of "good"  
*Indeed, high educational level seems to be more adequate as wording and modifications have been made accordingly page 5 line 18*

- page 7 of 23, line 37: what is the meaning of "understand free"? Please consider if it is possible to rephrase this to make it more understandable for the reader. Thank you.  
*Modification has been changed for precision page 6 line 20 to 22*  
*"They [the women] will come [to Dschang] because it is free. But when they think they will be no cost for them and finally they do have to pay transport themselves, it might prevent them from going" (female hospital staff).*

- page 8 of 23, line 31: please add references for the "previous studies" that are referred to  
*We added references 15-16 page 7 line 26*

- page 8 of 23, line 52: please describe/elaborate on the meaning of "fatalism" in this context :  
*Modification for precision has been made page 8 line 6 to 8*  
*"Second, fear towards results was frequently observed especially by the community health workers who tried to motivate women to attend screening. Some women may give up on being testing because they think a positive results might be synonym to death."*

- page 9 of 23, line 20-29: the meaning of the last part of the quote is not clear ("starts to make noise"?). Please describe the relevance in the text  
*What we mean by start to make noise is that it will start some gossips in the villages. Modification have been made for precision p 8 line 26 to 31*  
*"Additionally, the study revealed that administrative procedures could be improved in respect to testing results and respect of privacy".*

- page 9 of 23 and page 10 of 23: after quotes the participant is not mentioned. Please look up on the lack of consistency in this regard.  
*This modification has been made for consistency.*

- page 10 of 23: section "Facilitators of cervical cancer screening" lacks references - please add references for this section =>  
*Those are findings from the study. We adapted the section page 10 and hope it is clearer now.*

- page 11 of 23, line 22-24: please be clear about under which of the four themes lack of awareness falls.  
*Lack of awareness falls under "health literacy". Structure was improved (see general comment cf. discussion section).*

- page 11 of 23, line 27-29: where does the statement "The lack of health literacy was noted more importantly in rural areas where education was lower and additional barriers due to financial constraints were higher." come from? Reference seems to be missing or at least the context is unclear.  
*"According the results of our FGs, the lack of health literacy was noted more importantly in rural areas where education was lower and additional barriers due to financial constraints were higher" (FGs p 10 line 34). Wording has been improved and we hope it is clearer now.*

- page 12 of 23, line 7: please add references for this statement - which studies are referred to as "literature"?  
*The reference is Thaddeus and Maine(7) page 11 line 27.*

- page 12 of 23, line 13: please add references for this statement - which studies are referred to as "previous studies"?  
*Following references were added p 11 line 32: 7-12-22*

- page 13 of 23, line 11: please add references for this statement - which studies are referred to as "national and international literature"?

*Following references were added p 12 line 35: 12-21-22-31*

## 2) Reviewer 2

For the most part minor errors in English, such as missing articles, do not interfere with the understanding of the science. In some places words are misused in ways that might be confusing, - e.g. "ignore" when what is meant is that they lack awareness of (line 22 abstract)

*This has been modified page 1 line 16. "A total of 16 healthcare providers were interviewed between July and August 2019. The barriers identified barriers are (i) lack of basic knowledge on cervical cancer among most women and men and (ii) lack of awareness of the role and existence of screening program to prevent it. Screening for cervical cancer prevention using self-sampling for HPV was considered as an acceptable approach for patients according to HCPs"*

- or "gratuity" where what is meant is that the testing is provided free of charge or at not cost to the patient.

*The wording has been modified through the document.*

English language review/editing would therefore be helpful for resubmission.

*A native speaker has been reviewing the modified manuscript.*

More description of the current program of HPV self-sampling as a screening method is needed to understand the context in which the study took place and barriers/facilitators being explored (where are women offered screening? how do they learn about screening?)

*Information added page 3 line 33 to 36: "Community-based sensitization campaigns sensitized and invited women aged between 30-49 years old for cervical cancer screening based on the 3T-approach at the Dschang district hospital. HPV self-samples were analyzed using a point-of-care test (Xpert HPV assay®) followed by VIA/VILI triage if HPV positive and treatment if required(6)."*

Results: There is nice use of the theoretical framework in presenting the results, but this section could be further strengthened and some terminology needs further clarification. What are "opportunity costs?"

The economic term was reframed and explained.

When referring to lack of knowledge and education, it is unclear whether "education" refers to formal educational level or questions of health literacy or general literacy.

*It refers to formal educational level but this is closely linked to health literacy.*

The finding of concerns that "positive" results would be associated with HIV infection is important and should be further explained. In fact with HPV testing we are not measuring "seropositivity.

*In consequence, HCP mentioned the importance to use appropriate wording that is easy to understand and will not frighten the patients. Precision has been made page 7 line 32 to 36 "For example, the wording seropositivity is not appropriate in the area of HPV testing. However, community workers that are influenced by others campaigns such HIV testing, have been using it. As the word "seropositivity" is closely linked to the HIV-status, HCPs suggested to use other terms in case of a positive HPV infection."*

Fatalism needs to be defined: in some cultures this relates to beliefs that "it is god's will," in others it is the belief that there is nothing to be done about cancer and therefore why would I want to know about it, etc. Please clarify how fatalism is defined in this context.

*Indeed, according to us it is more related to the fact that nothing can be done about cancer : it has been address in the article as such page 8 line 6 "Second, fear towards results was frequently observed especially by the community health workers who tried to motivate women to attend screening. Some women may give up on being testing because they think a positive results might be synonym to death."*

Under "perceived quality of care" please explain what "informative causerie" means in the quote.

A descriptive footnote was added p 8: <sup>1</sup> Informative causerie refers to the informative talk that is given to women to give information on CC prior to screening.

Further explanation is needed of how administrative procedures relate to quality of care. With regard to privacy concerns?

*This section has been modified for precision page 8 line 24: Additionally, the study revealed that administrative procedures could be improved in respect to testing results and respect of privacy. As a male HCP explained:*

*“There is... there is as well the result. When a group of women arrive and we give them the results, we will tell one of them to wait... when we tell her to wait it will draw attention from the others. If the first ones are gone and this one need to wait it means... it means that there is a problem (...) and because the others women knew (...) As soon as she is back at home they will be some gossips People will say that she had to stay » (male hospital staff). “*

With the quote "welcoming the patient is important..." I believe this would be better translated as "making the patient feel comfortable, " but I am not certain of the original meaning.

*Thank you for your comment on the wording. It has been changed page 8 line 33 and 36*

Discussion:

In the discussion, and also in regard to acknowledgement of limitations, it is important to qualify that these are perceptions of the healthcare providers and not barriers expressed directly by patients. Is there some plan to explore barriers directly with women of screening age themselves?

*We have added details to the limitations section p 12 line 26 to 28: “Finally, this study has been based on the healthcare providers perspective. We would need to further evaluate our results directly with women in aged of screening. Currently a second qualitative study with the patients is being put in place based on current results in order to resolve this limitation.”*

Also, given that the first delay was found to be the most significant, and that distance to health care facilities was a major barrier, it would be helpful to spell out in the discussion the role HPV self-sampling can play in increasing access to screening and how the single visit approach can also reduce barriers to screening and treatment of precancerous lesions, ultimately needed for prevention of cancer.

*This point has been addressed through the 2 modifications below:*

- page 11 line 27 to 28: *“As such, the single visit approach enable to minimize this barrier by screening and treating precancerous lesions on the same day, avoiding women to face twice distance barriers”.*

- Page 12 line 14-16 *“A reinforced trust in self-sampling for HPV could be a real asset in maximizing geographical coverage of screening as distance was seen as a major barrier”*

Lastly the single visit approach is mentioned in the introduction and discussion but presented only briefly in the results themselves.

*As explained in the article, HCPs expressed very good feedback regarding the single visit approach. As this point was very consensual and barely of discussion we choose not to develop it further and strengthen the approach of more relevant points. A precision was added P 9 line 32*

*“Furthermore, the study explored HCP’s perception of the single visit approach using self-sampling for HPV testing. Overall, the concept to be tested and treated on the same day was very well regarded by the HCP. **This point was found very consensual among the various FGs.**”*

## VERSION 2 – REVIEW

REVIEWER	Liebermann, Erica New York University Rory Meyers College of Nursing
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<b>REVIEW RETURNED</b>	25-Jan-2021
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<b>GENERAL COMMENTS</b>	<p>The first revisions of the paper strengthened the paper and made it much clearer. There are some remaining language errors that need to be addressed, but no substantive revisions required.</p> <p>Examples It may be less cumbersome to say HPV self-sampling rather than self-sampling for HPV each time. The latter is correct but the former may be simpler.</p> <p>Language error examples are provided here, and the whole manuscript should be reviewed for English clarity one more time: * Abstract line 4, potential barriers (rather than barrier). *line 16 "barriers identified" were (rather than are) In the abstract should introduce HCP abbreviation in parentheses after first use of health care provider and then use HCP *Introduction line 9 high coverage rates (plural) * line 27 preventive services (plural)</p> <p>p7 line 25 'formal educational level' or 'formal level of education' p8 line 8 synonym is misspelled p8 line 30 there will be some gossip. p9 line 36 "loss to follow up" p11 line 8 they are found to lack awareness.. p12 patient satisfaction is of utmost importance</p>
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### VERSION 2 – AUTHOR RESPONSE

Point by point Answer

1) Reviewer 1

No new comments have been made.

2) Reviewer 2

Reviewer: 2

Dr. Erica Liebermann, New York University Rory Meyers College of Nursing

Comments to the Author:

The first revisions of the paper strengthened the paper and made it much clearer. There are some remaining language errors that need to be addressed, but no substantive revisions required.

- It may be less cumbersome to say HPV self-sampling rather than self-sampling for HPV each time. The latter is correct but the former may be simpler.

We agree with this comment and modified wording

- Language error examples are provided here, and the whole manuscript should be reviewed for English clarity one more time:



\* Abstract line 4, potential barriers (rather than barrier).

We agree with this comment and modified wording

- line 16 "barriers identified" were (rather than are)

We agree with this comment and modified wording

- In the abstract should introduce HCP abbreviation in parentheses after first use of health care provider and then use HCP

We agree with this comment and modified.

- Introduction line 9 high coverage rates (plural)

We agree with this comment and modified wording

- line 27 preventive services (plural)

We agree with this comment and modified wording

- p7 line 25 'formal educational level' or 'formal level of education'

We kept formal educational level

- p8 line 8 synonym is misspelled

We agree with this comment and modified

- p8 line 30 there will be some gossip.

We agree with this comment and modified wording

- p9 line 36 "loss to follow up"

We agree with this comment and modified wording

- p11 line 8 they are found to lack awareness..

We agree with this comment and modified wording

- p12 patient satisfaction is of utmost importance

We agree with this comment and modified wording

Beside please note that another native speaker has been reviewing our work in order to improve the clarity and English level

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