Author's response to reviews

Title: Using Intervention Mapping for the development of a targeted secure web-based outreach strategy for Chlamydia trachomatis testing in young people at risk.

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Author’s response to reviews: see over
Dear Editor,

Thank you for giving us the opportunity to revise our paper and resubmit. We want to thank the Reviewer for the very helpful comments. Following the comments we have revised and improved our paper accordingly; comments are addressed below.

Kind regards,
Nicole Dukers-Muijrers

**Point-by-point reply to the comments of the Reviewer:**

1. *The authors describe the development of an innovative web-based application based on respondent driven sampling to target hard-to-reach youth for STI testing. They carefully describe the use of Intervention Mapping (IM) in the development process, which is helpful for readers who are unfamiliar with the IM process. Overall, the manuscript is well-organized with sufficient detail describing methods and results. However, it would benefit from careful editing by a native English-speaker as some phrases/statement are rather awkward.*

   Thank you for the comments; the manuscript had been edited for UK English spelling and grammar (by company AJE) and was then checked by a native English speaker as well. We have now checked the manuscript again and found few errors which were changed accordingly. Hopefully our amendments are satisfactory.

2. *Abstract – Background: In the opening sentence, clarify where the study took place. “Despite the availability of public sexual health care centers and general practitioners in the Netherlands...” Not all countries have “availability of public sexual health care centers and GPs.”*

   We have clarified and changed this sentence into: ‘Many young people at high risk for Chlamydia trachomatis (Ct) are not reached by current sexual health care systems, such as general practitioners and public sexual health care centres (sexually transmitted infection clinics).’. *We have added in the Methods the country where the study took*
Methods: Intervention Mapping (IM), a systematic approach to develop theory- and evidence-based interventions, was used to develop a strategy to target Ct testing towards young people who are currently hidden to care in The Netherlands.

3. Methods – Step 1 Needs Assessment (p.6). The PRECEDE model is a key part of IM Step One; yet, it is not mentioned in Methods or Results. I would recommend including mention of it in both sections and possibly including a completed PRECEDE model for chlamydia outcomes in this youth population as an additional figure. It would provide a useful example for other practitioners who may choose to use the IM process.

We agree that more detail on this issue is helpful to other practitioners and have followed the suggestion of the Reviewer by including the Precede model as a figure (see below) in the manuscript and describing it in the text. We added to the methods in Step 1: “To plan and guide the need assessment the PRECEDE-model is used.”
4. **Results – Step 3 (p.11). Include Modeling as a method since there is mention of a modeling activity in Step 4 Results and it is listed on Table 4.**

We followed the suggestion of the Reviewer and included ‘modeling’. The sentence now reads: Other supporting methods geared to improve testing and motivating include tailoring, personalize risk, modelling, consciousness raising, elaboration, mobilizing social support and self re-evaluation (i.e., Table 4 and 5).”

5. **Results – Step 4 (pgs.11-12).** In the Methods section, the authors described development of two websites – one for youth and one for “sexual health care professionals to oversee the recruitment process.” However, in the results section it’s difficult to discern what activities are featured in which website and how the two websites work together. Some more detail regarding the integration and functions of these two websites would be helpful. Also, it’s difficult to discern how exactly the websites are intended for use (e.g., where are they accessed, at home or during clinic visit or both? Who oversees youth’s use of the website – self-initiated/navigated, or is use guides by the health care professional).

We added more details on how exactly the websites are intended for use and how they are integrated. We added to the Results: “Overall, the use of the SafeFriend website by young people is self-initiated and not guided by the care professionals. The exception is the start of the recruitment chain when the Ct positive young people at the sexual health care centre are motivated and supported by the nurses to use the intervention. For this, a second specially designed interface is accessed by the nurse during the consultation visit, i.e. the moment that in routine care partner warning is discussed. This interface enables the young Ct positive client to motivate others during the consultation together with the nurse (like in provider referral) and/or at a later moment at home (like in client-referral).

Of course the clients may choose not to motivate others, without any further consequences for their own care. This second professional interface is thereby directly integrated in regular care and it further enables the nurse to oversee the process of further home-test requests. As the actions on motivating others by Ct positive people are standardly registered the intervention yields systematic data on partner-notification, data which are currently lacking.”.
6. Discussion (pgs. 14-15). “The intervention therefore facilitates both patient and provider referral...” Again, given the lack of clarity in the Results Step 4 section, it’s not exactly clear how the intervention does both of these.

We added to the Results: “This interface enables the young Ct positive client to motivate others during the consultation together with the nurse (like in provider referral) and/or at a later moment at home (like in patient-referral).“ And we added to the Results “As the actions on motivating others by Ct positive people are standardly registered the intervention yields systematic data on partner-notification, data which are currently lacking.” We hope this clarifies why the intervention facilitates provider and patient referral.

7. Table 2 PO 1. Some words appear to be missing from the PO – “PO1.1: Young people appraise CT”. Suggest rewording to “Young people appraise personal risk for CT.”

For clarity, we reworded this section into: “Young people appraise effects of Ct and personal risk”.

Furthermore, we have added the name of the intervention website for youth throughout the manuscript (SafeFriend).

We hope that our revisions are sufficient. Please let us know if there are other questions.

Kind regards,

Nicole Dukers-Muijrers