Author’s response to reviews

**Title:** Barriers to and Facilitators of Partner Notification for Chlamydia Trachomatis among Health Care Professionals

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

Thank you for giving us the opportunity to revise our manuscript. We would like to thank the Reviewers for their very helpful comments. Following the reviews and editorial comments, we have revised and improved our manuscript accordingly; all comments are addressed below.

Kind regards,
Kevin Theunissen, on behalf of all co-authors

Point-by-point reply to the comments of the reviewer 2: Gill Bell

Manuscript:

1. The paper is difficult to read because the standard of English (spelling, grammar and punctuation) is poor, some sentences are too long and the structure is idiosyncratic in places.

The latest version of the manuscript has been edited by a professional language editing service to improve the style of written English.

Introduction:

2. The relevance of some statements to the general thesis of the paper is not always clear (e.g. Last sentence on p 3 – just hangs there until is explored again in the discussion)

Thank you for this comment. The last sentence on page 3 described future promising facilitators for the PN process. However, as EPT, internet PN and home-based testing were not yet standard care in the Netherlands when the interviews took place, these factors were not mentioned by the care professionals as facilitators for PN. In order to make things clearer, we deleted the following sentence in the Introduction: “In general several facilitators for the PN process have been identified, including expedited partner therapy (EPT), in which patients are given medication for their partners [2,10-12], and the use of the Internet [11,13] and home-based test kits [5].” As the manuscript now stands, we introduce and discuss the promising use of these facilitators (EPT, internet PN and home-based testing) in the Discussion section.
In addition, we critically reviewed the rest of the Introduction, but did not find any other statements with low relevance to the general thesis of the paper. Please do let us know if there are more statements in the Introduction that need clarification.

Methods, design and setting:

3. A: 'Design and setting’ is a jumble of sentences which should be in different sections and/or a different order! – e.g. a description of what PN is and when it is performed should not be under methods;

   B: Information about the research process – e.g. obtaining ethical approval and informed consent, should not be interspersed with background information on screening rates.

3A: We agree with the Reviewer, and in line with this suggestion, have moved the following sentences to the Introduction: “PN can be initiated when a STI test is performed, when a patient is informed about a positive test result by telephone, or when a patient visits the STI clinic for treatment. In cases where a patient agrees that the health care professional may notify his or her sex partner(s), the health care professional will telephone or send a text message. Other tasks performed by STI clinic health care professionals include sexual health consultations, STI testing, treatment, and education. Their professional role description (as part of a public health service) includes the protection of the community as a whole (i.e. sex partners).”

3B: In relation to the second point raised, we deleted the following sentence on background information: “In the Netherlands, in total 133,585 consultations were carried out by the Dutch STI clinics (8 coordinating clinics) in 2013 yielding 15,767 Ct diagnoses of which 61% in those younger than 25 years of age.” We deleted rather than moved this sentence because this information is already described in the following sentences in the Introduction: “In the Netherlands, public health STI clinics are responsible for approximately 30% of STI care and the large majority of PN [10].” and “In the current study, we focused on Ct because it is the most common STI in patients younger than 25 years old, with an estimated prevalence of 17% in 2013 in the Netherlands [14].”
Methods, design and data collection:

4. Why was this piloted among young people, not health professionals?
Thank you for this comment. This was pilot tested on health professionals. We made a mistake in how we communicated this, and have changed the sentence to now read: “The interview protocol was piloted among health care professionals before implementation.”

Results, paragraph care professional barriers

5. P9 – ‘Next to this.....notifying one another’ doesn’t make sense – partners do not notify patients. A better interpretation of this quote would have been to note the unwillingness to undertake provider referral.
We agree with the reviewer and the following sentence: “Next to this, it was stated that patients and their sexual partner(s) are responsible for their own sexual health and for notifying one another.” has been replaced with: “Moreover, client referral, as opposed to provider referral, was preferred by almost all health care professionals. They viewed the notification of sex partners as the responsibility of the patient.”

Results, figure 1

6. Figure 1: not sure how helpful the step 1-4 model is in clarifying the barriers and facilitators; the text doesn’t seem to line up; surely ‘lack of commitment to sex partners’ is a barrier to step 3, not step 2.
Thank you for this comment. We decided to use the step 1-4 model, because it illustrates the steps of the general PN process. Different barriers and facilitators may occur at each step, as described in our Introduction. The figure in this manuscript underlines the finding that most of the barriers and facilitators found in this study occur at steps 2 and 3 (identifying and notifying partners). We agree that some barriers and facilitators do not line up. We have therefore replaced some barriers and facilitators in the figure.

Results, perceived patient-related barriers

7. Surprising that ‘patient barriers’ in the results section did not include the discomfort, fear and embarrassment patients feel discussing their sexual
history with health care workers and/or their STI diagnosis with a partner. This was alluded to in the discussion but not presented as a finding.

Thank you for this comment. To be sure, we looked at the transcripts again, but care professionals in our study did not mention discomfort, fear or embarrassment as a barrier in the discussion about sexual history between the patient and provider. Care professionals did, on the other hand, mention a lack of commitment (on the patients’ part) towards sex partners when a patient needed to discuss a Ct diagnosis with a sex partner (as described in our Results section). However, we did not explicitly describe the reasons for this lack of commitment among patients towards partners, which included anger, fear, and embarrassment. We therefore removed the following sentence: "Even though care professionals felt comfortable discussing PN they sometimes experienced a lack of patients’ commitment towards sex partners which hindered the identification and notification of these sex partners (PN steps 2 and 3)."

This sentence was replaced with: "Even though health care professionals felt comfortable discussing PN, they were sometimes confronted with a lack of commitment among patients towards sex partners when discussing a Ct diagnosis. Reasons for this lack of commitment mentioned by the health care professionals included feelings of anger, fear and embarrassment among patients towards their sex partners."

Discussion, recommendations

8. There is no evidence presented – from these findings or the literature – to claim that ‘motivational interviewing training should be maintained. When professionals are better trained to motivate clients…and are more directive in helping clients in the notification process sex partner’s recall will increase’. Previous feedback pointed out that this reveals a misunderstanding of MI, which is not a directive style. ‘Proactive’ would have been a better word.

We agree with the reviewer that Motivational Interviewing is not a directive style. We have therefore replaced the word “directive” with “proactive”. Motivational Interviewing can be useful when care professionals experience resistance among clients towards PN, as described in an article published by Op de Coul et al. (With whom did you have sex? Evaluation of a partner notification training for STI professionals using motivational interviewing. Patient Educ Couns. 2013
Motivational Interviewing seems to have a positive effect on the practical implementation of PN in routine consultations, as well as a positive impact on professional skills regarding coping with resistance of the client toward PN.

The following sentence in the Recommendations section has now been deleted: “Furthermore, motivational interviewing training should be maintained. Sex partner’s recall will increase when professionals are better trained to motivate clients to notify sex partners and are more directive in helping clients in the notification process (i.e., provider referral) sex partner’s recall will increase [4,5,11,25,28]. This has now been replaced with: “Furthermore, attention should focus on Motivational Interviewing, which has been shown to improve skills and behaviour health care professionals in dealing with patients’ resistance towards PN [26]. PN training using MI as a useful tool should therefore be included in the education of health care professionals. In addition to this, recall of sex partners is likely to increase when professionals are better trained to motivate patients to contact sex partners, or when care professionals are more proactive in helping patients in the notification process (i.e., provider referral)[4,5,18,22,26].”

Recommendations

9. p.19 Referencing error : Trelle’s paper summarised evidence that home testing kits increased the proportion of partners tested, but not partners treated.

We deleted the following words: “and treated”

Limitations

10. The number of years working experience may play a role …..’ needs further discussion.

We addressed this comment by adding the following sentences: “Fourth, the experience that a health worker has (i.e. number of years working in a clinic) may play a role in the PN process. Positive and/or negative experiences over time could influence the attitudes and self-efficacy of health care professionals towards PN.”
Abstract:

11. Badly written and weak conclusion – should list the practical steps to be taken as outlined in the paper.

We removed the following section: “Our results provide insight into the challenges and facilitators at the care professional, the patient and the organisational level. To overcome barriers and maintain facilitators and thereby optimise PN, efforts should be made to concentrate more on the public health care goals of STI clinic practice and focusing especially on their aim of protecting the community.” This has now been replaced with: “Health care professionals identified several barriers that need to be overcome, and facilitators which need to be maintained. Future efforts should concentrate on introducing PN protocols, providing feedback on both the effectiveness of strategies used by health care professionals, and on the PN process as a whole, and educating health care professionals about Motivational Interviewing strategies. Moreover, the possible implementation of an Internet-based PN system should be explored.”

Point-by-point reply to the comments of the reviewer 3: E. Jennifer Edelman

Major Compulsory Revisions

Abstract, introduction:

1- Introduction: The authors might revise the second sentence to read: “Yet, data on the effectiveness and factors impacting implementation of PN in the Netherlands are lacking” given that the focus of the current study.

Thank you for your feedback. We followed this suggestion and the sentence has been revised accordingly.

Abstract, conclusions:

2- Conclusions: The recommendations for future steps are quite broad – can the authors be more specific in their recommendations?

Please refer to comment 11 of reviewer 2, and our response.
Introduction:

3- Please provide background for the legal context regarding PN in the Netherlands – is it mandatory?

We have now added the following sentences to the Introduction: “In the Netherlands, PN is not mandatory or enforceable by health care professionals. The role of the health care professional is to motivate and help Ct positive patients to identify and notify their sex partners.”

Methods:

4- How were participants reimbursed for their participation in the study?

The care professionals were not reimbursed. They all participated during their normal working day.

Methods:

5- Please clarify the role of the STI nurses in performing partner notification – does this include outreach efforts or by telephone/in-person alone? Or are there other public health staff who perform this role? This is relevant for improving implementation of PN (see below, comment 4)

Thank you for this comment. See comment 3 of reviewer 2: we moved the description of what PN is, and when it is performed, to the Introduction section.

Nurses only occasionally notify sex partners on behalf of a patient (i.e., provider referral). When they notify sex partners on behalf of a patient they always do this via telephone or text messages. No outreach efforts are undertaken to contact the sex partner of a patient. Furthermore, there are no other public health care workers in STI clinics who perform this role. To clarify this in the manuscript, we added the following sentences: “The role of the health care professional is to motivate and help Ct positive patients to identify and notify their sex partners. PN can be initiated when a STI test is performed, when a patient is informed about a positive test result by telephone, or when a patient visits the STI clinic for treatment. In cases where a patient agrees that the health care professional may notify his or her sex partner(s), the health care professional will telephone or send a text message.”
Discussion:

6- The authors report that data regarding PN are not collected but then state "Currently, almost all notifications at the Dutch STI clinics are carried out by patients (i.e. patient referral), and not by care professionals" – is this just based on anecdotal data?

It is indeed based on anecdotal data. During the interviews, nurses indicated that they only occasionally perform provider referral. We changed the sentence into: “Currently, almost all notifications at Dutch STI clinics appear to be carried out by patients (i.e. patient referral) and not by health care professionals, as revealed during the interviews.”

Discussion:

7- Given that the findings suggest that face-face conversations may be more effective, might this suggest a role for outreach testing of partners (again, akin to the role of Disease Intervention Specialists as outlined by the United States-based Centers for Disease Control and Prevention)?

Thank you for your comment. In the Netherlands, there is no face-to-face outreach testing of partners by care professionals yet. We added a description of the promising use of outreach conversations with partners in the Discussion: "Professionals can use email, text messages, telephone and outreach approaches such as face-to-face conversations to inform sex partners.”

Discussion:

8- There is no mention in the results or discussion regarding experiences with PN in the context of heterosexual vs. homosexual partners – have differences been noted based on risk groups? If so, does this have implications for the recommendations?

Thank you for this comment. Indeed there might well be differences in PN experiences between heterosexual and homosexual partners. Because of this expected difference and in order to avoid potentially confounding variables in the
present study, the interviewers stated at the beginning of each interview that the interview questions all related to Chlamydia positive young heterosexual people. These criteria were not clearly described in the Method section. We therefore added the following sentence: “At the beginning of each interview, the interviewers stated that all questions were related to Chlamydia diagnosis in young heterosexual people.” In the Limitations section, we already described this difference between risk groups: "Third, barriers and facilitators as perceived by health care professionals were studied only in relation to PN in young heterosexual people infected with Ct (i.e., the largest group of STI clinic patients in the Netherlands). Therefore, it is unknown whether results can be extrapolated to other target groups (i.e. men having sex with men, or commercial sex workers) and other STIs (e.g. Syphilis or HIV).”

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

Kind regards,

Kevin Theunissen on behalf of all co-authors

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