Author's response to reviews

Title: Chlamydia trachomatis infection and sexual behaviour among female tertiary students in the Republic of Ireland.

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Author's response to reviews: see over
Letter in Reply to Reviewer’s report

Original Title: Chlamydia trachomatis infection and sexual behaviour among female third level students in Ireland.

New Title: Chlamydia trachomatis infection and sexual behaviour among female tertiary students in the Republic of Ireland.

27th July 2009

Dear Hannah Madden,
Many thanks for your review of this article- your expert input is very much appreciated. I have addressed your recommended revisions and thus have improved the quality of this article. Please find the details of the changes made under each of the review comments.

Reviewer’s report:

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

1. You need to explain what 3rd level is. This term is not known out of Ireland. Is this 3rd year college/university students? There is no explanation of this term and it is included in the title which will need to change. What age group is this? Was age collected? Need to ensure this can be understood by an international audience:

I have altered the description of “third level” to “tertiary education”. This term “tertiary” has been used in international journals. I inserted the following explanation of tertiary education into the article, “Tertiary education is the educational level following the completion of a school providing a secondary education, such as a high school or a secondary school”.

I could not describe the students as university students as the tertiary education institutions in this study included one institute of education along with two universities. “Female students attending three Student Health Units (SHU) in 3 tertiary education institutions in two cities were invited to participate in the
study. These institutions included two universities and one institute of education, which are based in the Republic of Ireland”.

I have now described the age profile within the results section and also in table format (table 2).
I have altered the title of this article to “Chlamydia trachomatis infection and sexual behaviour among female tertiary students in the Republic of Ireland”.

2. Need to subdivide the methods and include more information on procedure tools etc:

I have divided the methods into:

- Ethics
- Screening sites
- Recruitment and screening process
- Data and sample collection
- Exclusion criteria
- Specimen and case management
- Statistical analysis

3. Need more information about the questionnaire design? Was it open questions/tick boxes etc?

I have added the following detail into the methods: “The questionnaire consisted mainly of the dichotomous yes/no option and the forced choice question. Open-ended questions were also utilised. The questionnaire included demographic questions such as medical card status (A medical card provides access for those on low incomes to all public health services). Also included were questions about sexual health and sexual lifestyle (Casual Sex was described as when a person has sex with another person more than once but not within a relationship)”.

4. How were participants recruited? Who approached them? Reception
This detail was added to this article “A different method of recruitment was used in each setting. One involved the healthcare provider (nurse/doctor) advising the female attendees of the screening programme after their consultation had concluded. A second option (due to the frequently lengthy waiting periods in one setting), involved students being advised of the study while waiting for their appointment. This was done mainly by the receptionist. If students were willing to consider participating in the study, they were asked to read the study information leaflet attached to the study pack. This described the study and suggested that, if interested in participating, one could complete a self-administered questionnaire while waiting for an appointment with the healthcare professional. The third option involved the nursing staff referring students to the principal investigator (medical doctor) either after the student’s main consultation had taken place or while the student awaited an appointment. In all recruitment scenarios, if the student then indicated an interest in participating, the significance of a positive chlamydia test and the subsequent management of same were explained to them by a healthcare professional”.

5. Please elaborate on the sampling frame. Explain ‘on consecutive days’ – how many days in total? You state consecutive but then give no more information. In abstract you say ‘one day periods’? Needs clarification:

I inserted the following section to clarify the sampling frame, “All female students attending a screening site on designated screening days between October 2004 and March 2005 were approached. This amounted to 71 screening days in total i.e. an average of 27 per screening site”.

6. Please clarify inclusion/exclusion criteria – were all women who attended October 04 to March 05 asked?:

The following is the description of the exclusion criteria, “Exclusion criteria:
Students presenting with symptoms suggestive of a STI, requesting assessment for STIs, or who had received antibiotic treatment in the previous 2 weeks were excluded. Regarding the urine sample the student must not have urinated in the previous 2 hours and a first void urine sample was necessary”.

Please see point 5 above re explanation of sampling frame.

7. There is no descriptive information about the participants. Can you provide a table of descriptive statistics? There is more info about non-responders than the actual participants:

I have inserted Table 2, which gives a description of the participants. Some of this information is also detailed in the text, “The median age of the participants was 20, with a range of 17 to 34 years (Table 2). 94% of the total population lived in Ireland for the majority of their lives. 80% of the Population were single or not living with a partner. 85% were undergraduates with an even spread in each year in college”.

8. “Limited information on non-responders” – what were they asked? Can you compare this to participants in a table?:

The following text was inserted into methods, “Demographic details and use of the oral contraceptive pill were gathered on non-participants. These demographic details included age, faculty and year in college”.

A table comparing participants to non-participants (Table 1) was inserted.

9. Was age collected? Can you provide mean/median/range in results? Especially important if you’re recommending screening it needs to be age specific screening (eg in UK <25):

Please see the answer to point 7 above.
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

10. Results – odds ratios are not really being presented as odds in text – increased odds of what? Being CT positive or negative?:

I have made these corrections in the text.

11. Can you clarify which area of Ireland – Republic or Eire? An international reader might interpret this as North and South:

I have clarified that this article relates to the Republic of Ireland.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

12. Information about SHUs in 3 institutes in 2 cities is only mentioned in abstract. Can you elaborate in Methods?:

I have clarified the description of institutions in the text, “All females presenting during one-day periods at Student Health Units in 3 tertiary education institutions in 2 cities in the Republic of Ireland were invited to participate. These institutions included two universities and one institute of education, which are based in the Republic of Ireland (Tertiary education is the educational level following the completion of a school providing a secondary education, such as a high school or a secondary school)”.

13. No mention of the non-respondents in the limitations:

I have inserted the following observation: “Participants were generally attending tertiary education longer than non-participants and thus may have either had more concerns due to a possibly longer sexual history or may have been more comfortable with screening in the Student Health Units”.
14. Discussion “Also of concern 32% (15) of students with an STI report that they were not advised about partner notification” Is this 32% of the participants in this study? Was this on the questionnaire? Not included in results. If it is not from your study what is the reference? Also should this be with a chlamydia report not STI report?:

This finding was from this study. I have added this information to the results section: “A previous STI was reported by 42 (9.3%) of whom 8 (1.8%) reported previous C. trachomatis infection. Of these students with an STI, 32% (15) were not advised about partner notification”.

I thought it should be included in this article as it relates to the public health actions necessary to reduce transmission of chlamydia infection.

15. Abstract “The prevalence of C. trachomatis infection and the lack of awareness of the significance of symptoms among sexually experienced female students demonstrates the need for a programme to test asymptomatic or non-presenting women.” Could more adequately explain the importance of lack of symptoms. Public health implications?:

I have expanded this section as follows with the underlined sentence:

“The low percentage of students with a past history of Chlamydia infection (1.8%) indicates that positive cases are not being tested, possibly due to the asymptomatic nature of Chlamydia. As the majority of female Chlamydia infections are asymptomatic, this implies that a high proportion of infections are not detected with the potential for adverse health outcomes. In addition 24% of the students had suggestive symptoms at the time of the fieldwork and were not presenting with these, thus indicating a low level of understanding of potential STI symptoms. This is worrying as having suggestive symptoms significantly increases the risk of a positive test. Screening programmes need to target both asymptomatic and non-presenting symptomatic students”.

16. Limitations – no mention that those who seek care from SHU are actually seeking health care. States they differ from general public and from other students going to family doctor. But what about difference
to students who don’t seek any medical care? There may be risk taking clusters that are encouraging them to attend SHU that mean they are more at risk of chlamydia?:

I have added in this limitation: “Students attending student health centres may not be representative of all students as some students may not seek any medical care and others may seek care at their family doctor or elsewhere”.

17. “Two or more one night stands and 3 or more lifetime sexual partners significantly increase the risk of a positive result. These sexual history questions could be asked during a consultation.” Why? Can you state what this would achieve and state public health/clinical implications?:

I have expanded this section as follows: “In our study we decided to report on strict cut off values for risk factors to make risk assessment by a clinician practical. Risk assessment is increasingly important in this current economic recession and in the midst of the Influenza A(H1N1)v pandemic, as both clinician's time and laboratory resources are being limited. Two or more one night stands and 3 or more lifetime sexual partners significantly increase the odds of a positive result. These sexual history questions could be asked during a consultation to assist in identifying patients at high risk for Chlamydia infection and thus maximising the positive yield from the samples submitted”.

18. What do you mean by ‘three institutes’ – define earlier in methods. First time they are mentioned is ‘the three institutes were compared for sociodemographic factors’ at end of methods:

This extract from the updated article addresses this issue: “Female students attending three Student Health Units (SHU) in 3 tertiary education institutions in two cities were invited to participate in the study. These institutions included two universities and one institute of education, which are based in the Republic of Ireland (Tertiary education is the educational level following the completion of a school providing a secondary education, such as a high school or a secondary school)”.
19. “Risk factor data is also comparable; the risk level for three or more lifetime sexual partners at 3.6 being very similar to that recorded by Imai for Japanese female students (OR 3.4) and the odds ratio of 2.5 for current symptoms corresponding to that for American students of 2.1.” can you reword to clarify? Phrasing is confusing as you are talking about risk level in relation to odds ratios?

I have altered the wording of this section as follows: “Risk factor data is also comparable to international data; the odds of 3.6 for being Chlamydia positive with three or more lifetime sexual partners being very similar to that recorded by Imai for Japanese female students (OR 3.4)\textsuperscript{18} with the same sexual history. Also the odds of 2.5 for being Chlamydia positive if have current symptoms corresponds closely to the odds of 2.1 for American students with current symptoms”.

Many thanks again for your constructive review. I hope I have addressed all concerns adequately. If not please advise me and I will do any more necessary revisions.

Yours sincerely

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Dr. Emer O’ Connell