

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Association between Sexually Transmitted Disease and church membership. A retrospective cohort study of two Danish religious minorities.
<b>AUTHORS</b>	Kørup, Alex; Thygesen, Lau; Christensen, René; Johansen, Christoffer; Søndergaard, Jens; Hvidt, Niels

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Aniebue Uzochukwu College of Medicine University of Nigeria Enugu campus Enugu Nigeria
<b>REVIEW RETURNED</b>	09-Dec-2015

<b>GENERAL COMMENTS</b>	<p>Religious affiliation studied in this study is often an accident of birth and may not always equate to religious practice. The focus of this study should rather have been the effect of religious practises in this cohort on the prevalence of STI and cervical cancer. No effort was made by the investigators to ascertain the religious practises of those reported to be members of the selected religious groups so at best the study is an examination of STI in Seven day Adventists and Baptist in Denmark.</p> <p>No attempt was made to examine the actual cervical cancer pick up rate in the selected cohort and their attitude to cancer screening. Religious conviction may also affect attitude to screening and bias the outcome of the study.</p> <p>Extrapolating population's cancer pickup to a defined cohort is speculative.</p> <p>This study should be re-titled to reflect the actual work done.</p>
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<b>REVIEWER</b>	Alexander Moreira-Almeida Research Center in Spirituality and Health (NUPES), School of Medicine, Federal University of Juiz de Fora (UFJF), Brazil
<b>REVIEW RETURNED</b>	15-Dec-2015

<b>GENERAL COMMENTS</b>	<p>This paper presents a good study of an important and poorly explored topic. Bellow, some specific comments aiming to collaborate with paper's improvement.</p> <p>Title Since the study does not investigate directly the "cancer burden" or HPV, these words should not appear at the title or keywords. These topics are relevant to the discussion of the implications of the</p>
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	<p>findings. A more precise title might be: " Association between Sexually Transmitted Disease and religiousness. A cohort study "</p> <p><b>Introduction</b> It could present some evidence supporting the association between infection by HPV and the SDT investigated at the present study</p> <p><b>Methods</b> Information about how SDA and Baptists were selected should be provided (is the sample representative of the whole population of SDA and Baptists?) Why not use indicators such as relative risk to compare incidence of SDT between groups? explain what is the "rule of 3" Clarify how the incidence rate was calculated. It is explained at the table, but needs to be written at the Method's section.</p> <p><b>Results</b> To which period of the follow up refers the presented mean age of participants? What is the "mean age at membership"? Is it 1977? Since the incidence of SDT varies according to age groups, it would be important to present also mean age of the general population. Table 2: the age groups refer to which period of time (1977 or time of the diagnosis?) I would suggest to suppress table 3 and fig 1, or move them to web only web tables 1 and 2 could be moved to the paper, since they present the main results of the study</p> <p><b>Discussion</b> Since the study does not investigate HPV, it is not needed to state that " This study shows no evidence of HPV incidence in the cohort being equal or higher than the background population" The " FUTURE RESEARCH " recommendations are too general to be useful. it would be important to provide more specific suggestions.</p>
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### VERSION 1 – AUTHOR RESPONSE

Dear Aniebue Uzochukwu.

Thank you for your valuable comments. We have considered them thoroughly and we agree with your point that religious affiliation most often is a result of which family we are born into. However, for this study in which we wanted to investigate STD in Danish Seventh-day Adventists and Baptists, we do not have access to the actual religious behavior of the members.

We likewise agree with your comment that we did not examine the cervical cancer pick up rate in this specific study . The cancer incidence in the cohort has however been thoroughly investigated and is described in the referenced article by Thygesen et al. "Cancer incidence among Danish Seventh-day Adventists and Baptists. Cancer epidemiology." We have added a paragraph with the findings regarding cervical cancer in the Introduction.

Regarding your comment on extrapolating the populations cancer rate to the cohorts, we are aware that this can be an issue. However, we used the Danish population as a control in order to investigate whether the incidence of STD in the cohort deviates from the background population. In line with earlier similar studies, we hypothesized that there would be a significant difference.

Thank you for pointing out that the title of our article was misleading, we have changed the title as you suggested.

Dear Alexander Moreira-Almeida

Thank you so much for your detailed and thorough comments.

Your comment on the article title has been considered and we agree that the title was misleading. We have changed the title accordingly.

Your request for a linkage between HPV and STD is very valuable remark. We have added a sentence and a reference to another work on the association between HPV and STD.

We agree with you that the cohort description was lacking. Our study is based on a selection from the Danish Cohort of Religious Societies. We have thus added a complete description on the selection process of the original cohort.

Your request for indicators like relative risk have sparked a valuable debate in our group, and we agree that this measure could make our results more accessible to readers. We have thus added this in the form of Standardized Incidence Ratios with 95% confidence intervals. SIRs are added to both the Results section and the Tables 1 and 2 (Web-Only tables).

Hanleys "Rule of three" is now further elucidated in the article.

You request that the calculation of the incidence rates are clarified. We acknowledge that this may be obscure, but believe we already mention this in the Methods section. However, we have added a note that we use data from the National Patient Register.

"Mean age at membership" is the mean age at the time the participants joined the church community.

You ask for the mean age of the general population in Denmark. We are not sure why this should be of value when we have standardized the cohort in age groups accumulating person years over an extensive follow up period. The mean age of the population would differ from year to year.

You find the description of Table 2 lacking. Thank you for pointing this out. The table shows incidences of first-time registered STD-diagnose grouped in age groups. We have updated the table-description accordingly.

Regarding your comment on exchanging Table 3 and Pic1 with the WebOnly-tables, we certainly see the point of this proposal, and we have discussed it in our group. However, albeit the tables 1 and 2 contain the mail results they have a great number of "zero" values and take up a tremendous amount of space on a printed page. We therefore judged them less informative than the Table 3 and Fig 1.

By your request we have removed the redundant sentence from the discussion stating that the "study shows no evidence of HPV incidence in the cohort being equal or higher than the background population".

In the 'Future research' section we have added a more specific recommendation.