PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Sexual assaults in individuals with visual impairment: A cross-
	sectional study of a Norwegian sample
AUTHORS	Brunes, Audun; Heir, Trond

VERSION 1 – REVIEW

REVIEWER	Dr. Mahjabeen Khan
	Dow University of Health Sciences, Pakistan
REVIEW RETURNED	31-Jan-2018

GENERAL COMMENTS	The manuscript shows an informative and important aspect of sexual assault. The comparison of VI and general population showed some important results. However, the age group was defined as VI (≥ 18 years) brought a bias in the study. The age range is broader and yet we do not know exactly which age has the higher risk factor in VI. In my opinion the age group requires to be focussed
	Comments need responses The manuscript shows an informative and important aspect of sexual assault. The comparison of VI and general population showed some important results. However, the age group was defined as VI (≥ 18 years) brought a bias in the study. The age range is broader and yet we do not know exactly which age has the higher risk factor in VI. In my opinion there is a possibility of sexual assault at age below 18 Years in both the populations. Sexual assault at ages after 35 to > 66 years needs to be explored differently. The associated risk factors in this group must be identified. The study design is weak because of this large group of age. The two factors taken Life satisfaction and Self-efficacy only are not justified. Other factors for VI family / other support compared to general population needs to be observed. The education, Work status and marital status are also the risk factors to be evaluated. The prevalence is required in each category and then comparison. As stated, "the female/male ratio was 7.3 for the VI population and 5.9 for the general population" is this for the sample description or for the sexual assault? Figure 1 displays the unadjusted and age- and gender-adjusted risk of sexual assaults for VI related characteristics in the VI population.
	Figure 1 Not found in the Manuscript.

REVIEWER	Patricia Findley
	Rutgers University, The State University of New Jersey
	USA

REVIEW RETURNED	15-Feb-2018
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GENERAL COMMENTS

This is an interesting and well-written paper that will contribute to the literature. I have several comments that I hope will increase the value of this work.

- 1. The use of the word prevalence is problematic in this context. Prevalence suggests a population level finding. The sample for this project was a convenience sample. I would suggest using "experience" or a similar word to describe what the authors truly did in this work.
- 2. The literature appears to be current, but (I am guessing from my own experience) the software used for the references did not pull in the year correctly for some of the cited papers.
- 3. The paper would benefit from a good grammatical review. Although it is well-written there are several instances of subject/verb are matched incorrectly using singular vs plural verbs (e.g., line 27, page 1—diagnosis of VI are (should be is) and line 26, page13 data...was (should be were).
- 4. With respect to the method, I see 21 were not able to complete the questionnaire, but what was the reason? If the perpetrator was within the home, it would have difficult for the respondent to comfortably (or safely) complete the survey. Please more specifically discuss how informed consent was provided by the participants. This is a vulnerable population if this this study were to be replicated, protection of subjects would be critical. As the authors' note, assault is about power and oppression, and we know many perpetrators are family members.
- 5. Data were collected on employment. In the narrative it does not include "studying" which is in the table. Which was it?
- 6. The discussion describes higher rates of sexual assaults in those having other functional impairments. I do not see this finding discussed in the results—but I now see some of this in the supplemental information. Main findings should not be supplemental. Table S1 should be included with the main paper.

VERSION 1 – AUTHOR RESPONSE

Response to Reviewer #1

1. The manuscript shows an informative and important aspect of sexual assault. The comparison of VI and general population showed some important results. However, the age group was defined as VI (≥ 18 years) brought a bias in the study. The age range is broader and yet we do not know exactly which age has the higher risk factor in VI. In my opinion the age group requires to be focussed. Response: We agree to the Reviewer's point that it would have been interesting to know the risk of sexual assaults among children and adolescents. However, that would have required parental consent, which we did not have. A need for parental consent might have increased the risk of selection bias as parents are generally sceptical about involving their child in research on sensitive topics such as sexual assaults (Esbensen, Miller, Taylor, He, & Freng, 1999).

Esbensen, F. A., Miller, M. H., Taylor, T. J., He, N., & Freng, A. (1999). Differential attrition rates and active parental consent. Eval Rev, 23, 316–335. Response to Reviewer #2

1. The use of the word prevalence is problematic in this context. Prevalence suggests a population level finding. The sample for this project was a convenience sample. I would suggest using "experience" or a similar word to describe what the authors truly did in this work.

Response: We agree with the reviewer that our participants, although randomly sampled from a study population of members from a member organization, may not be representative for the total

population of people with visual impairment (see the limitation part of the 'Discussion' section, on page 13).

Nevertheless, we have chosen to use the term prevalence to indicate the proportion of the study population that has some health-related events or states at the specified time (Greenland & Rothman, 2013). We believe this is the most precise term for describing the occurrence of sexual assaults, and hope the Reviewer can accept our choice.

Greenland KJ, Rothman S. (2008). Measures of occurrence. In K. J. Rothman, S. Greenland & T. L. Lash (Editors), Modern epidemiology. (3rd ed., p. 381–418). Philadelphia: Lippincott Williams & Wilkins.

The Norwegian Association of the Blind and Partially Sighted. Om Blindeforbundet [About the Norwegian Association of the Blind and Partially Sighted]. Available from: https://www.blindeforbundet.no/om-blindeforbundet.

- 2. The literature appears to be current, but (I am guessing from my own experience) the software used for the references did not pull in the year correctly for some of the cited papers. Response: Thanks for the thorough work. We have checked the entire reference list and made some changes.
- 3. The paper would benefit from a good grammatical review. Although it is well-written there are several instances of subject/verb are matched incorrectly using singular vs plural verbs (e.g., line 27, page 1—diagnosis of VI are (should be is) and line 26, page13 data...was (should be were). Response: We have reviewed the entire manuscript grammatically. We hope this has improved the quality of the English language.
- 4. With respect to the method, I see 21 were not able to complete the questionnaire, but what was the reason? If the perpetrator was within the home, it would have difficult for the respondent to comfortably (or safely) complete the survey. Please more specifically discuss how informed consent was provided by the participants. This is a vulnerable population if this this study were to be replicated, protection of subjects would be critical. As the authors' note, assault is about power and oppression, and we know many perpetrators are family members.

 Response: We thank the reviewer for the comment. Participants with visual impairment completed all interview questions, while there were 23 participants from the general population who did not respond to questions about age and/or gender. We believe that such a small proportion of non-response do not significantly affect our main findings. Nevertheless, to appraise the study findings correctly, it is essential for the reader to have information about missing data. Therefore, we have added the

† = no missing data due to non-response for the VI population, while there were 23 participants from the general population who did not respond to questions related to age and/or gender.

following sentence in the footnote of Table 2, on page 11:

All participants were informed in the beginning of the interview about the study's main objective and about the rights as a research participant (i.e. voluntarianism and the ability to withdraw the consent at any time during the study). If the participant did not have the opportunity to complete the survey, the interviewer offered to reschedule the interview at a more convenient time for the participant. We believe this will to some extent secure the participant from being interviewed at a time where the perpetrator was within the home.

5. Data were collected on employment. In the narrative it does not include "studying" which is in the table. Which was it?

Response: The occupational status variable had the following seven response categories: fulltime employed, part-time employed, self-employed, studying, unemployed, disability pension and retired. To ensure sufficient number of participants in each category, we decided to merge the employment categories and the studying category. Overall, 257 (34.9%) participants reported to be in work and 38 (5.2%) participants reported that they were studying.

The number reported in the limitation part of the 'Discussion' section, on page 13, is the percentage of participants in their working age (18–66 years) who report to be in work (46%). We gave this percentage to compare our study data to the 2015 census data obtained by Statistics Norway.

We understand that confusion might occur when reading two completely different percentages of employment. Thus, we have decided to delete all percentages displayed in the limitation part of the 'Discussion' section, on page 13. We hope this change will help in the understanding of the article.

6. The discussion describes higher rates of sexual assaults in those having other functional impairments. I do not see this finding discussed in the results—but I now see some of this in the supplemental information. Main findings should not be supplemental. Table S1 should be included with the main paper.

Response: We think there has been a misunderstanding. The risk of sexual assaults in those with other impairments in addition to their visual impairment are displayed in Figure 1. This figure is presented in the results section of the main paper. Table S1, on the other hand, is a descriptive table on sociodemographic factors and characteristics of visual impairment across various degrees of visual impairment.

VERSION 2 – REVIEW

REVIEWER	Patricia Findley
	Rutgers University
	New Brunswick, New Jersey
	USA
REVIEW RETURNED	05-Apr-2018
GENERAL COMMENTS	I feel the authors have addressed my concerns. I have not further
	comments. I look forward to seeing this in press.
REVIEWER	Dr. Mahjabeen Khan
	DOW University of Health Sciences
	Pakistan
REVIEW RETURNED	20-Apr-2018
GENERAL COMMENTS	The second review showed clarity in the study. I accept all the
	limitations.