

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A global estimate of the prevalence of posttraumatic stress disorder among adults living with HIV: A systematic review and meta-analysis
AUTHORS	TANG, chulei; Goldsamt, Lloyd; Meng, Jingjing; Xiao, Xueling; Zhang, Li; Williams, Ann; Wang, Honghong

VERSION 1 – REVIEW

REVIEWER	Prof Athula Sumathipala Professor of Psychiatry School of Primary, Community and Social Care Keele University Staffordshire, ST5 5BG Faculty of Medicine & Health Sciences Keele University Staffordshire, ST5 5BG
REVIEW RETURNED	12-Aug-2019

GENERAL COMMENTS	1. Please double check the authors instruction for abstract content 2. The Strengths and limitations of this study in the abstract should reflect what is in the main paper. Strengths are not discussed in the main paper but only limitations
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REVIEWER	Charles Young Rhodes University, South Africa
REVIEW RETURNED	11-Oct-2019

GENERAL COMMENTS	This is a very interesting and informative article. My only question is to do with the debate about whether a diagnosis of living with HIV is sufficient to meet DSM criterion A? In SA this has been debated extensively. Though we have also noted that many people with HIV also have PTSD arising from a traumatic event other than HIV diagnosis. It would be interesting to see whether the prevalence of HIV-related PTSD is higher or lower than the prevalence of HIV and PTSD that simply co-occur.
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REVIEWER	Mona Loutfy Women's College Hospital University of Toronto Toronto, Canada
REVIEW RETURNED	15-Oct-2019

GENERAL COMMENTS	This is an interesting and important paper where the authors completed a systematic review and meta-analysis on PTSD among people living with HIV. I think it would be strengthened by carrying out a gender-based analysis as a major component.
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	<p>Abstract: – change “HIV-infected patients” to “people living with HIV”</p> <p>Introduction: - 2nd sentence about HIV infection being a traumatic event minimized the fact that many PLWH have experienced very severe childhood and adulthood trauma in their lives – I recommend adding an entire paragraph on the high rates of violence experienced by PLWH and getting HIV is only one additional traumatic event.</p> <p>Methods: - add whether there were limits regarding language for the systematic review?</p> <p>Results: - Why were the 9 excluded that targeted psych interventions or genocide? - Page 17 – change HIV-positive MSM and women to men who have sex with men living with HIV and women living with HIV</p> <p>Discussion: - fine but long</p>
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REVIEWER	Christiana Kartsonaki University of Oxford, United Kingdom
REVIEW RETURNED	22-Nov-2019

GENERAL COMMENTS	<p>Statistical review of “A global estimate of the prevalence of posttraumatic stress disorder among adults living with HIV: A systematic review and meta-analysis”</p> <p>The methods used were generally appropriate. A few comments:</p> <ol style="list-style-type: none"> 1. Please clarify how selection bias was examined (p. 9, l. 31). 2. Please clarify the measure used to quantify PTSD among individuals with HIV. In the meta-analysis section there is the sentence ‘The rates of PTSD among PLWH were combined and reported as proportions...’ (p. 10, l. 15) which makes is unclear whether the underlying statistics used were rates or prevalences. Similarly the words are used interchangeably in the results (p. 17, l. 41). 3. ‘Confidential Intervals’ should be ‘confidence intervals’ (p. 10, l. 18). 4. Please describe more specifically the test used to compare subgroups (‘Chi-square tests were further used...’, p. 10, l. 34). 5. Please provide a reference for Egger’s and Begg’s test (p. 10, l. 47). 6. Please cite the software used for the meta-analysis (and for collating the data, if any). 7. In table 1 should ‘convenient sampling’ be ‘convenience sampling’? 8. ‘Achieve higher PTSD prevalence’ would be better phrased as ‘have higher PTSD prevalence’.
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1(Prof Athula Sumathipala)

1. Please double check the authors instruction for abstract content

Answer: Thank you very much. We have edited the abstract to reflect these instructions.

2. The Strengths and limitations of this study in the abstract should reflect what is in the main paper. Strengths are not discussed in the main paper but only limitations

Answer: Thank you for your valuable comment. We have adjusted The Strengths and limitations in the abstract. This study used the best available data and provides a pooled estimate of the prevalence of PTSD among adults living with HIV in various settings that do not currently have actual data. These data provide a useful indicator of the public health burden of the condition and a basis for health policy and resource allocation for HIV-PTSD intervention initiatives. The results of this study should inspire regional research to obtain their site-specific prevalence data on PTSD prevalence among adults living with HIV, and when such data become available, further high-quality research can refine the current estimates over time (Conclusions, page 28). We have added and discussed this further in the Discussion section on page 27.

Reviewer: 2 (Charles Young)

This is a very interesting and informative article. My only question is to do with the debate about whether a diagnosis of living with HIV is sufficient to meet DSM criterion A? In SA this has been debated extensively. Though we have also noted that many people with HIV also have PTSD arising from a traumatic event other than HIV diagnosis. It would be interesting to see whether the prevalence of HIV-related PTSD is higher or lower than the prevalence of HIV and PTSD that simply co-occur.

Answer: Thank you for your suggestions. Being diagnosed with a life-threatening disease is one of the situations in terms of DSM criterion A. Prior studies have indicated that people living with HIV (PLWH) develop PTSD mainly due to HIV diagnosis, progression of the disease, social stigma and deterioration in quality of life. As you mentioned, PLWH may have PTSD arising from a traumatic event other than HIV diagnosis. Also, as you recommended, it would be better if we had assessed the prevalence of HIV-related PTSD and the cooccurrence of HIV and PTSD. Unfortunately, few studies considered the specific traumatic experiences associated with PTSD among PLWH, which limited further exploration. This is a recommendation for future research that we have added that in our Discussion on page 27.

Reviewer: 3 (Mona Loutfy)

This is an interesting and important paper where the authors completed a systematic review and meta-analysis on PTSD among people living with HIV. I think it would be strengthened by carrying out a gender-based analysis as a major component.

Answer: Thank you for your comments. In this review, we aimed at evaluating PTSD prevalence among PLWH. Three subgroups (women living with HIV versus MSM living with HIV versus non-MSM living with HIV) were tested to provide more information on PTSD vulnerability among PLWH. We found that women living with HIV reported the highest prevalence of PTSD. We have updated the Results (page 18, 19), and discussed this in the Discussion section on page 24 and page 25.

Abstract: – change “HIV-infected patients” to “people living with HIV”

Answer: Thank you. We have made this change.

Introduction: - 2nd sentence about HIV infection being a traumatic event minimized the fact that many PLWH have experienced very severe childhood and adulthood trauma in their lives – I recommend adding an entire paragraph on the high rates of violence experienced by PLWH and getting HIV is only one additional traumatic event.

Answer: Thank you for your valuable suggestions. As you mentioned, getting HIV is only one potential traumatic event contributing to PTSD. We agree that the high rates of violence and other traumatic events experienced by PLWH should be emphasized. Considering the limitations on the number of words allowed, we have revised the Introduction to include this issue on page 5.

Methods: - add whether there were limits regarding language for the systematic review?

Answer: Thank you for your suggestion. The possibility of bias cannot be ruled out regarding only studies published in Chinese or English (Methods, page 8). We now also mention this as a limitation in Discussion on page 27.

Results: - Why were the 9 excluded that targeted psych interventions or genocide?

Answer: Thank you for your valuable comments. Those 9 excluded studies including 4 studies that evaluated intervention efficacy without baseline PTSD prevalence assessment and 5 studies that evaluated PTSD due to genocide/natural disaster. After reassessment, 2 studies (Rwandan women genocide survivors and PLWH experiencing the 2010 Haiti earthquake) were included in this review. Two other studies reported repeated data (the Rwandan Women’s Interassociation Study and Assessment (RWISA)), and one did not report PTSD prevalence), and these were dismissed. We have revised the Flow chart (Figure 1) and updated data analysis and results accordingly.

- Page 17 – change HIV-positive MSM and women to men who have sex with men living with HIV and women living with HIV

Answer: Thank you. We have changed those terms.

Discussion: - fine but long

Answer: Thank you. Due to the high heterogeneity detected in this review, we provided several possible explanations to avoid bias, resulting in a lengthy discussion.

Reviewer: 4 (Christiana Kartsonaki)

Statistical review of “A global estimate of the prevalence of posttraumatic stress disorder among adults living with HIV: A systematic review and meta-analysis”

The methods used were generally appropriate. A few comments:

1. Please clarify how selection bias was examined (p. 9, l. 31).

Answer: Thank you for this observation. Selection bias was examined by reviewing the articles included in the meta-analysis to ensure they met eligibility criteria. We have revised it in Methods on page 9.

2. Please clarify the measure used to quantify PTSD among individuals with HIV. In the meta-analysis section there is the sentence ‘The rates of PTSD among PLWH were combined and reported as proportions...’ (p. 10, l. 15) which makes is unclear whether the underlying statistics used were rates or prevalences. Similary the words are used interchangeably in the results (p. 17, l. 41).

Answer: Thank you for your comments. We have revised this section of the manuscript. We now refer only to prevalence rates.

3. 'Confidential Intervals' should be 'confidence intervals' (p. 10, l. 18).

Answer: Thank you. We have changed this.

4. Please describe more specifically the test used to compare subgroups ('Chi-square tests were further used...', p. 10, l. 34).

Answer: Thank you for your suggestion. Subgroup analyses were performed to possibly clarify the underlying systematic differences and reduce the substantial heterogeneity. Subgroup analyses were performed based on the country (low- versus middle- versus high-income countries), the gender/sexual orientation of the sample (women living with HIV versus MSM living with HIV versus non-MSM living with HIV), the sampling method (consecutive sampling versus convenience sampling) and the type of measure (clinical interview versus self-report). A Chi-square (χ^2) test was performed to determine the significance of the heterogeneity among studies. A conventional p value of 0.05 was used as a cut-off. We have revised that section of the manuscript to describe this more clearly.

5. Please provide a reference for Egger's and Begg's test (p. 10, l. 47).

Answer: Thank you. We have added the references.

[1] Begg CB, Mazumdar M. Operating characteristics of a rank correlation test for publication bias. *Biometrics* 1994; 50: 1088–101 [PubMed](#) .

[2] Egger M, Smith GD, Schneider M, Minder C. Bias in meta-analysis detected by a simple, graphical test. *BMJ* 1997; 315: 629–34 [PubMed](#) .

6. Please cite the software used for the meta-analysis (and for collating the data, if any).

Answer: Thank you. We have added it.

[1] Stata C, Station C. TX. Stata Press 2016

7. In table 1 should 'convenient sampling' be 'convenience sampling'?

Answer: Thank you. We have revised accordingly.

8. 'Achieve higher PTSD prevalence' would be better phrased as 'have higher PTSD prevalence'.

Answer: Thank you. We have revised accordingly.

VERSION 2 – REVIEW

REVIEWER	Mona Loutfy University of Toronto, Canada
REVIEW RETURNED	30-Dec-2019

GENERAL COMMENTS	Congratulations to the authors for an excellent job. Their revisions, greatly improve this paper. There are still a couple spots where HIV-positive people should be changed to person-first language. Also I am not sure 29% vs. 27% vs. 26% of prevalence of PTSD from high, vs mid, vs low-income countries is different but fine to leave.
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REVIEWER	Christiana Kartsonaki University of Oxford, United Kingdom
REVIEW RETURNED	03-Jan-2020

GENERAL COMMENTS	<p>Statistical review of “A global estimate of the prevalence of posttraumatic stress disorder among adults living with HIV: A systematic review and meta-analysis”</p> <p>The authors have addressed previous comments. A few additional comments:</p> <ol style="list-style-type: none"> 1. In the data extraction section I think that the sentence on selection bias should be modified. Should selection bias not refer to selection in the studies included rather than to studies not fulfilling the eligibility criteria? 2. The term ‘prevalence rate’ is used. Is this really a rate (that is per unit of time)? 3. In the meta-analysis section, please change ‘a fix-effects model was conducted’ to ‘a fixed effects model was used’. 4. In the meta-analysis section, I suggest changing ‘subgroup analyses were performed by dividing subgroups based on’ to change ‘subgroup analyses were performed by’.
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VERSION 2 – AUTHOR RESPONSE

Reviewer: 2 (Charles Young) previous comments

This is a very interesting and informative article. My only question is to do with the debate about whether a diagnosis of living with HIV is sufficient to meet DSM criterion A? In SA this has been debated extensively. Though we have also noted that many people with HIV also have PTSD arising from a traumatic event other than HIV diagnosis. It would be interesting to see whether the prevalence of HIV-related PTSD is higher or lower than the prevalence of HIV and PTSD that simply co-occur.

As Reviewer 2 noted, ‘many people with HIV also have PTSD arising from a traumatic event other than HIV diagnosis’, and ‘whether the prevalence of HIV-related PTSD is higher or lower than the prevalence of HIV and PTSD that simply co-occur’ is worth exploring. We have further addressed this issue on page 27.

Reviewer: 3 (Mona Loutfy)

Congratulations to the authors for an excellent job. Their revisions, greatly improve this paper. There are still a couple spots where HIV-positive people should be changed to person-first language. Also I am not sure 29% vs. 27% vs. 26% of prevalence of PTSD from high, vs mid, vs low-income countries is different but fine to leave.

Answer: Thank you for your comments. We have changed the wording in those spots.

Reviewer: 4 (Christiana Kartsonaki)

1. In the data extraction section I think that the sentence on selection bias should be modified. Should selection bias not refer to selection in the studies included rather than to studies not fulfilling the eligibility criteria?

Answer: Thank you for your suggestion. Our team performed a rigorous and thorough literature search, and examined all studies screened as potentially relevant following the PRISMA standard. We modified the sentence to make it more accurate.

2. The term ‘prevalence rate’ is used. Is this really a rate (that is per unit of time)?

Answer: Thank you for your valuable comment. After reevaluating this study, we changed the term 'prevalence rate' to 'prevalence'.

3. In the meta-analysis section, please change 'a fix-effects model was conducted' to 'a fixed effects model was used'.

Answer: Thank you. We have revised accordingly.

4. In the meta-analysis section, I suggest changing 'subgroup analyses were performed by dividing subgroups based on' to change 'subgroup analyses were performed by'.

Answer: Thank you. We have revised accordingly.

VERSION 3 – REVIEW

REVIEWER	Christiana Kartsonaki University of Oxford
REVIEW RETURNED	04-Feb-2020
GENERAL COMMENTS	My previous comments have been adequately dealt with.

VERSION 3 – AUTHOR RESPONSE

Reviewer: 4 (Christiana Kartsonaki)

Please leave your comments for the authors below

My previous comments have been adequately dealt with.

Answer: Thank you.