LETTER OF REVIEWERS

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Reviewer A:

Recommendation: Revisions Required

Relevance: Very high

Novelty: High

Presentation and writing: High

Comments for authors

Introduction:

1. The manuscript presents an appropriate introduction and provides an overview of previous studies. However, we suggest explicitly stating the knowledge gap that this study aims to address in comparison to more specific previous reviews (e.g., studies focused solely on lesbian or transgender populations).

Results:

- 2. The reporting of the meta-analyses is confusing. In the subsection "Overall Violence Prevalence," a pooled prevalence is presented for different LGBTQ populations for any type of violence, which is clear (Figure 3). However, a pooled analysis for each specific type of violence across all populations is not conducted. For instance, a pooled analysis of physical violence across all LGBTQ populations would be informative as a main analysis, as it would provide a comprehensive view of each type of violence within the LGBTQ community. Instead, this is done partially, only for MSM and transgender individuals, and it is unclear why this was limited to these populations, given that pooled analyses were already conducted. We suggest adding pooled analyses for each type of violence and including them in Table 2.
- 3. In the sections "Prevalence by Violence Type in Men Who Have Sex with Men (MSM)" and "Prevalence by Violence Type in Transgender Population," analyses are presented for each specific type of violence, and an overall is reported. It should be noted that this overall refers to the sum of the specific types of violence reported, but it does not represent the prevalence of experiencing any type of violence, which is different. For example, a person may report 10% physical, 15% psychological, and 2% sexual violence, but that does not imply that 27% experienced violence—some individuals may have experienced multiple types. The proportion of individuals reporting any type of violence should be reported for each group to ensure consistency and clarity.
- 4. We understand that there is insufficient power to perform subgroup analyses for other populations. However, we suggest performing an overall analysis (including all LGBTQ populations), as well as separate analyses for MSM and transgender individuals, both for any type of violence and for each specific type. This approach may provide greater value to the scientific community by allowing more targeted interpretation.
- 5. The manuscript exceeds the allowed number of figures. We suggest including additional figures as supplementary material, especially the funnel plots. It is good practice to include a funnel plot for each meta-analysis, but in this study only selected plots are reported. We recommend adding all funnel plots to a single supplementary file.
- 6. It remains unclear whether factors such as age, biological sex, or others may confound the prevalence estimates. We suggest conducting a meta-regression to evaluate whether variables such as age influence the results.
- 7. Figure 2 currently consists of two separate figures. These should be combined into a single unified figure. Please make this modification.

Discussion:

- 8. Several references throughout the text are incorrectly cited. Please review and correct these citations.
- 9. We suggest adding a paragraph discussing any deviations from the original protocol registered in PROSPERO. If there were deviations, these should be justified, including a discussion of how they might have influenced the results.

RESPONSE LETTER

Manuscript title	Intimate partner violence in lesbian, gay, transgender, men who have sex with men, women who have sex with women, and bisexual people: A systematic review and meta-analysis of prevalence
Manuscript ID	ID-459

Dear Editor,

We thank you for the opportunity to revise our manuscript titled "Intimate partner violence in lesbian, gay, transgender, men who have sex with men, women who have sex with women, and bisexual people: A systematic review and meta-analysis of prevalence" (Manuscript ID: ID-459). We have carefully considered the reviewer's suggestions and have revised the manuscript accordingly. Below, we provide a detailed point-by-point response to the reviewer's comments, including where the changes were made in the revised version.

All modifications have been highlighted in the revised manuscript, and the updated version follows the journal's formatting guidelines.

We hope that our responses and revisions meet the expectations of the journal and look forward to your feedback.

Reviewer A Comment	Author Response	Page/Section
Comments 1: Introduction: 1. The manuscript presents an appropriate introduction and provides an overview of previous studies. However, we suggest explicitly stating the knowledge gap that this study aims to address in comparison to more specific previous reviews (e.g., studies focused solely on lesbian or transgender populations).	Fully accepted. Existing reviews have focused on specific populations without making comparisons among them, which does not allow for a more accurate understanding of the phenomenon under study, such as lesbian women (Badenes-Ribera et al., 2016), men who have sex with men (Finneran & Stephenson, 2012; Liu et al., 2021), or transgender individuals (Peitzmeier et al., 2020), and that addresses the methodological limitations identified in the literature (West, 2012; Badenes-Ribera et al., 2019). This knowledge gap limits our ability to develop effective, evidence-based interventions and public health policies to prevent and address IPV in these populations. Therefore, the objective of this systematic review and meta-analysis is to synthesize the available evidence on the prevalence of intimate partner violence in lesbian, gay, bisexual, and transgender adults, considering the different forms of IPV and providing more precise estimates to guide future interventions and policies.	Page 5

Comments 2:

Results:

2. The reporting of the meta-analyses is confusing. In the subsection "Overall Violence Prevalence," a pooled prevalence is presented for different LGBTQ populations for any type of violence, which is clear (Figure 3). However, a pooled analysis for each specific type of violence across all populations is not conducted. For instance, a pooled analysis of physical violence across all LGBTQ populations would be informative as a main analysis, as it would provide a comprehensive view of each type of violence within the LGBTQ community. Instead, this is done partially, only for MSM and transgender individuals, and it is unclear why this was limited to these populations, given that pooled analyses were already conducted. We suggest adding pooled analyses for each type of violence and including them in Table 2.

Fully accepted. We agree with the reviewer's observation regarding the need for comprehensive pooled analyses across all LGBTQ+ populations. We have added a complete new section "Prevalence by Specific Violence Types Across All LGBTQ+ Populations" that includes pooled analyses for physical violence (10 studies, n=3,537), psychological violence (13 studies, n=33,404), and sexual violence (15 studies, n=39,556) across all populations. These results have been integrated into Table 2 in the "All LGBTQ+ [95% CI]" column. We also clarified the methodological rationale for limiting subgroup analyses to MSM and transgender populations based on the ≥3 studies criterion for statistical reliability.

Page 23-24, Results section; Table 2 updated

Comments 3:

Results:

3. In the sections "Prevalence by Violence Type in Men Who Have Sex with Men (MSM)" and "Prevalence by Violence Type in Transgender Population," analyses are presented for each specific type of violence, and an overall is reported. It should be noted that this overall refers to the sum of the specific types of violence reported, but it does not represent the prevalence of experiencing any type of violence, which is different. For example, a person may report 10% physical, 15% psychological, and 2% sexual violence, but that does not imply that 27% experienced violence—some individuals may have experienced multiple types. The proportion of individuals reporting any type of violence should be reported for each group to ensure consistency and clarity.

Fully accepted. We acknowledge the important distinction between "any violence" (unified category measuring experience of any type of intimate partner violence) and the sum of specific violence types. We have revised the manuscript to clearly separate these concepts throughout. We added explicit clarification statements such as "The analysis of any form of violence in MSM included 11 studies" and included a detailed note in Table 2: "*'Any violence (All forms)' represents studies that measured experience of any type of intimate partner violence as a unified category." This ensures readers understand that individuals may experience multiple types of violence, and the proportion reporting "any violence" differs from summing specific types.

Page 24, Results section; Table 2 note updated

Comments 4: Results:

4. We understand that there is insufficient

Fully accepted. We have implemented the complete analytical structure suggested by the reviewer. The manuscript now includes: (1)

Page 14-25, Results section complete

power to perform subgroup analyses for other populations. However, we suggest performing an overall analysis (including all LGBTQ populations), as well as separate analyses for MSM and transgender individuals, both for any type of violence and for each specific type. This approach may provide greater value to the scientific community by allowing more targeted interpretation.	overall analyses across all LGBTQ+ populations for both "any violence" and each specific violence type, (2) separate detailed analyses for MSM populations across all four violence categories, and (3) separate detailed analyses for transgender populations across all four violence categories. This comprehensive approach provides greater value to the scientific community by allowing more targeted interpretation while maintaining statistical rigor through our ≥3 studies criterion for subgroup analyses.	restructure
Comments 5: Results: 5. The manuscript exceeds the allowed number of figures. We suggest including additional figures as supplementary material, especially the funnel plots. It is good practice to include a funnel plot for each meta-analysis, but in this study only selected plots are reported. We recommend adding all funnel plots to a single supplementary file.	Fully accepted. We have reorganized all figures according to the reviewer's recommendations. Main forest plots (Figures 3-8) remain in the primary manuscript for the most important analyses. All funnel plots have been moved to supplementary material with systematic references: Supplementary Figure S1 (all forms of violence), S2 (physical violence), S3 (psychological violence), and S4 (sexual violence). We applied the ≥10 studies criterion consistently for publication bias assessment to ensure adequate statistical power, with appropriate justification provided in the methodology.	Page 43, Publication Bias Assessment section; Supplementary materials organized
Comments 6: Results: 6. It remains unclear whether factors such as age, biological sex, or others may confound the prevalence estimates. We suggest conducting a meta-regression to evaluate whether variables such as age influence the results.	Fully accepted. We have added a comprehensive meta-regression analysis section examining age, publication year, and sample size as potential confounding variables. The analysis includes 12 separate meta-regressions across four violence types, with results presented in Table 3. Publication year was centered at the mean for each analysis to optimize interpretability. The analysis revealed that none of the examined variables significantly explained the observed heterogeneity (all p > 0.05), indicating that substantial between-study variability remains unexplained by these study-level characteristics. This finding suggests that other unmeasured factors (cultural contexts, measurement instruments, population characteristics) may contribute to the observed heterogeneity.	Page 24-25, Meta-regression Analysis section added; Table 3 added
Comments 7: Results: 7. Figure 2 currently consists of two	Accepted. We acknowledge the reviewer's recommendation to combine Figure 2A and Figure 2B into a single unified figure. This	Page 13, Figure 2 format modification

separate figures. These should be combined into a single unified figure. Please make this modification	modification will be implemented in the final figure file to present the risk of bias assessment results in a more cohesive format.	
Comments 8: Discussion: 8. Several references throughout the text are incorrectly cited. Please review and correct these citations.	Fully accepted. We agree with the reviewer's observation regarding the need review references the text. We have reviewed the manuscript to correct the citations; we have corrected the citations by correctly including the author's/organization's last name and the year, following the APA 7th edition format.	Page 26-28 Discussion section: Comparison with other studies and Public health implications
Comments 9: Discussion: 9. We suggest adding a paragraph discussing any deviations from the original protocol registered in PROSPERO. If there were deviations, these should be justified, including a discussion of how they might have influenced the results.	No significant methodological variations were recorded between the protocol registered in PROSPERO and the final manuscript. The only modification made was the change in statistical analysis software, replacing Stata with R.	Page 5

Additional clarifications

In addition to the above comments, all spelling and grammatical errors pointed out by the reviewers have been corrected.

We look forward to hearing from you in due time regarding our submission and to respond to any further questions and comments you may have.

Sincerely,

Juan Trujillo-Guablocho Cristian Mosquera Minaya

Gianfranco Centeno-Terrazas