Reviewer’s report

Title: HEALTH-RELATED QUALITY OF LIFE OF ADOLESCENTS WITH SICKLE CELL DISEASE IN SUB-SAHARAN AFRICA: A CROSS-SECTIONAL STUDY

Version: 0 Date: 09 Jan 2019

Reviewer: Sherif M. Badawy

Reviewer's report:

This is an interesting mixed-methods study that evaluated HRQOL in adolescents with SCD. The paper is well-written overall and address an important research question. Below are some comments/concerns for the authors to consider.

1. Abstract: The authors should include study inclusion criteria and describe the sample in terms of age and gender.

2. Abstract: The authors should also include actual data with numbers value in the abstract (e.g. PedsQL scores and correlations) with p-values indicating statistical significance or non-significance rather than just non-specific statements.


4. Background: The authors should include their a priori hypotheses to be clearly stated with study objectives.

5. Methods: The authors should revise the study design description as "Mixed-Methods study" rather than "Cross-sectional study" since it has both quantitative and qualitative components.

6. Methods: The study inclusion criteria need to be clarified in the population section regarding genotypes, chronic pain, steady state versus acute pain episode at the time of enrollment, hydroxyurea therapy exposure, and chronic transfusion. All these are important variables that would affect HRQOL scores and would be important to consider while interpreting study findings.

7. Methods: For the qualitative analysis, the authors should specify if they used inductive or deductive coding, or both, and should also include codebook and interview guide as an supplemental files, how many coders analyse the data and what was the inter-rater reliability. Methodology references would be helpful.

8. Results: The authors should include section subheadings to better organize their data.
9. Results: The authors should mention statistical methods only in the methods section, not results.

10. Results: What is the scientific rationale for evaluating the relationship between HRQOL and folic acid or pneumococcal vaccine? Is there a plausible physiological relationship? How? published data? That's why a priori hypothesis is important rather than just trying examining every possible relationship with no clear scientific rationale and justification.

11. Discussion: The authors should not repeat detailed results in the discussion section.


13. References 8-19 are missing from the manuscript

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

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