Author’s response to reviews

**Title:** Role of Life Events in the Presence of Colon Polyps among African Americans

**Authors:**

Hassan Ashktorab (hashktorab@howard.edu)
Hassan Hassanzadeh Namin (hassanhealth@yahoo.com)
Telitia Taylor (t_r_taylor@Howard.edu)
Carla Williams (cdwilliams@Howard.edu)
Hassan Brim (hbrim@howard.edu)
Tom mellman (tmellman@Howard.edu)
Mehdi Nouraie (snouraie@Howard.edu)
Cheryl L. Holt (cholt14@umd.edu)
Adeyinka O Laiyemo (adeyinka.laiyemo@Howard.edu)

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**Author’s response to reviews:** see over
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Dr. Inge Depoortere
Editor-in-Chief
BMC Gastroenterology

Dear Dr. Depoortere:

Enclosed is our revised manuscript entitled “Role of Life Events in the Presence of Colon Polyps among African Americans”.

First of all, we would like to thank the reviewers for their comments and suggestions. Our publication surely benefited from their reviews that are addressed below and in the text of the present manuscript.

Reviewer#1:
1) The word "life events" is stated many times in the manuscript as "life event". Furthermore, the questionnaire also refers to "life events." Thus, this should be changed to ‘life events’ in the entire manuscript.

Response: We have made the changes in the revised manuscript.

2) The title in the Results section should be changed to 'Participants'

Response: We have made the change in the revised manuscript.

3) The abbreviation H/O at the bottom of Table 1 is not a common practice, thus, "16 has H/O polyps unclear, needs to be expanded"

Response: We have made the change in the revised manuscript.

Review#2

Major comments:

1. The comparison of the two groups (polyps vs no polyps) and whether they were similar, is not provided. Table 1 should have this information for both groups to rule out confounding.

Response: Table 1 was changed to show three groups of patients. We also added Figure 2 which indicates the life events score in the three groups.
2. The patients’ numbers are small and only restricted to African Americans which limits power and generalizability.
   **Response:** We did intend to have only African Americans in this study since our institution is primarily serving minority populations and because of the higher risk of CRC in this population. Even though, our sample size might look small; due to recruitment limitations; the results were significant and have the potential to be extrapolated to other ethnic groups as well.

3. Although the authors conclude that patients who experienced more stressful life events may be at increased risk of colon polyps and adenomas, this is based on a higher total ‘life events score’ in patients with polyps (Table 2). Interestingly this includes both negative (bad, stressful) and positive (good, not stressful) scores and as they are individually not different in two groups, the conclusion seems premature. As the proposed question is “stressful life events”, only using the negative score may be more appropriate.
   **Response:** We agree with the reviewer and we revised the stressful life events to total life events which include the negative score. We replaced d Table 2 by Figure 1 to represent total life events along with positive and negative life events.

4. The instrument used – the 82 item life events questionnaire (LEQ) –was developed for adult female respondents of childbearing age and has mostly been used in teenage mothers or young adults/parents. Although comprehensive, it appears to be inappropriate to evaluate psychosocial stress in African American subjects with a mean age of nearly 60 years.
   **Response:** This scale is more comprehensive than most other stress scales and the life events included in this scale are not gender or age specific. Therefore, we thought it was an appropriate scale to use in this study.

5. Results Section – “Predictors of life events score” – Line 1 - Polyp diagnosis should not be affecting the life events score as it was measured before the colonoscopy. It should be the other way around.
   **Response:** We agree with the reviewer. This question was there for a different study to assess colonoscopy diagnosis on stress levels in patients undergoing colonoscopy. As such. We removed polyp from the regression models and changed this section.

6. Details about the regression model are lacking. Also, to answer the study question, regression model should include life events score as a variable along with other factors
(age, gender, education, smoking status etc) that can affect polyp incidence. But instead, the authors are reporting predictors of life events score – which fail to answer the proposed question. This data is not very useful.

7. **Response:** Details of regression model were added to statistical analysis. We believed that in this randomly selected sample, defining the predictors of Life Events score could improve our understanding of stress impact in a target population and its relationship to other diseases.

8. Discussion – para 2 – The authors state that as positive events may effect colon polyps. As there was no difference in the positive score in the 2 groups –this is incorrect. Also it’s incorrect to equate perceived positive life events to “general stress”.

   **Response:** We agree with the reviewer and as we mentioned above, we revised the stressful life events to total life events which include the negative score and positive score. We replaced Table 2 by Figure 1 to represent the total life events along both positive and negative events.

9. Also there is evidence that recall of life events is subject to telescoping (i.e., remote events are reported to have occurred more recently) and to mood (patients with lower mental health scores report more life events, especially perceived rather than factual events). Information about Baseline/known psychiatric diagnosis and its distribution among patients with polyps and no polyps would be helpful.

   **Response:** We did not measure baseline/known psychiatric diagnosis in this study. While this is not always measured in studies of this type, it would be a useful suggestion for a future study.

- **Minor Essential Revisions**

  1. The introduction is quite long and there is repetition in discussion. Some of this can be consolidated.

     **Response:** The present text has been revised to remove any redundancies.

  2. Few grammatical mistakes in para 3 of discussion need correction.

     **Response:** The errors has been corrected.

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**Editorial Comments:**
- It would be helpful to differentiate between patients with no polyps, patients with hyperplastic polyps and those with adenomas, and compare baseline characteristics, as well as life event scores.

Response: Table 1 was changed to show three groups of patients. We also added Figure 2 which indicates life events score in the three groups.

- Since the manuscript tries to address colorectal cancer pathogenesis, it may be helpful to explore differences in life events score between patients with tubular adenoma and sessile serrated adenomas.

Response: No serrated adenomas were observed in the patients of this study.

- Please provide additional information on the validity of the life events questionnaire; how does a median score of 29 or 21 relate to the 'healthy' population; do events with 'moderate to severe' effect impact outcomes to a greater extent. Please provide the life events questionnaire as a supplement to the manuscript.

Response: Validation of this scale has been confirmed by its positive associations with the STAI Trait Anxiety Scale, Profile of Mood States Subscales, and Brief Symptom Inventory Subscales (Norbeck, 1984). There are no cut-off scores for this scale.


- Please clarify if the questionnaire assessed lifetime life events (methods) or only in the last 12 months (abstract). Was the questionnaire filled out prior to performing colonoscopy.

Response: The questionnaire assessed lifetime events in last 12 months and we collected them prior to colonoscopy.

- Please comment on sample size estimation and convenient sampling adopted in this study.

Response: This statement was added to statistical analysis section:

“Sample size consideration: We postulated that difference between patients with colorectal polyps and controls in total life events score is 10 (Standard Deviation = 20). A sample size of 60 controls and 60 patients with polyps provide a power of 0.8 to detect this difference significantly (a=0.05, two-sided).”
- Figures may be added, and some of the tables may be dropped.

Response: We replaced tables 2-4 by Figures 1-3.

Thank you for your time and consideration.

Sincerely

Hassan Ashktorab, Ph.D.