

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Perspectives of adolescent and young adults on poverty related stressors: A qualitative study in Ghana, Malawi, and Tanzania
AUTHORS	Hall, Brian; Garabiles, Melissa; de Hoop, Jacobus; Pereira, Audrey; Prencipe, Leah; Palermo, Tia

VERSION 1 – REVIEW

REVIEWER	Serena Isaacs Department of Psychology University of the Western Cape South Africa
REVIEW RETURNED	27-Nov-2018

GENERAL COMMENTS	<p>Dear authors</p> <p>Thank you for the opportunity to review your manuscript entitled: "A description of poverty-related stressors: A qualitative study in Ghana, Malawi, and Tanzania". I believe that LMIC are an important cohort to investigate and this manuscript gives credence to the nuances that affect people daily. In addition, I commend the authors for the number of qualitative interviews conducted and can imagine the time involved in undertaking such an analysis. I do believe there are a number of issues that need to be addressed in this manuscript before it is ready for publication.</p> <p>Title: The title is slightly misleading since the authors have asked adolescents and young adults about their perceptions of stressors experienced by people who live in their communities. The title should be focused, indicating the age-range as well as the fact that they have asked for perceptions or experiences of stressors.</p> <p>Introduction/Background: The background of the study is quite sparse in terms of contextual information of the three countries. I would like a bit more information on the contextual nuances between these three countries and how that could influence the results. Moreover, why these three countries? What about them and their history makes them important to contextualise stress more so that the information we already have on stress?</p> <p>I am not convinced that the literature in this area of stress and coping has been adequately covered.</p> <p>One of the statements made is that 'research is needed to further contextualise stress'. I am not sure what the intention is with that statement. i.o.w, is it to understand/describe/explain how stress is experienced per country or objectively define stress more thoroughly?</p> <p>Method: The design is not clearly defined – is it a descriptive or exploratory study? Qualitative is not a research design. What kind of thematic analysis was conducted? Thematic analysis as a technique can be quite broadly defined and used. It would be</p>
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	<p>helpful to know for replication purposes which kind of thematic analysis was used.</p> <p>How do the authors address the fact that 50% of the interviews analysed from Tanzania and how this might influence the results? It seems a bit pedantic to have the patient statement when it is not indicated?</p> <p>The ethics need to be elaborated upon – I did not see anything related to informed consent, confidentiality etc., especially where the researchers themselves were not involved in data collection. This makes ethics quite a bit issue which needs to be addressed.</p> <p>Results: Please indicate how the results are to be structured. This will make for easier reading.</p> <p>The results read like a summary – it is more ‘point-form’ and much of the possible meaning and contextual information is lost. For example, the authors state “Stress induced by difficulties – affected interpersonal relationships” – my question would be how does this happen within these countries and according to the participants?</p> <p>The evidence provided by excerpts do not sufficiently support the need for a particular theme – please provide more excerpts/extracts.</p> <p>Discussion: The discussion lacks depth. I suspect this might be remedied with more literature in the background of the paper. My main question is how does this paper tell us what we do not know about poor countries and the stressors they endure which are mostly poverty-related?</p> <p>The authors state that the findings are not generalizable – this seems redundant given that it is a qualitative study and generalizability is not the aim. The aim is depth of information and I am not convinced that this analysis and presentation of discussion achieves this aim. I am also not convinced that the model is appropriate.</p> <p>The age range of the participants is an important contributing factor to the results of the study. There is not enough information of the state of young adults from these countries in the background of the paper in order to address this factor in the discussion. I am not sure about the need to differentiate between poverty-related stress and non-poverty-related stress. Is it the significance of the long-lasting consequences of poverty? Then this needs to be explained better.</p>
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REVIEWER	Lena Banks London School of Hygiene & Tropical Medicine, UK
REVIEW RETURNED	29-Nov-2018

GENERAL COMMENTS	<p>There is a lot of potential in this paper, although it needs further revisions before publication. Overall, the research aim needs to be clearer throughout – for example, the introduction/discussion focuses heavily on the impact of stress on health, but this isn’t reflected in the objectives and only in passing in the results. The findings could also be better organized to provide a more coherent, nuanced analysis. Specific suggestions are detailed below.</p> <p>Introduction - The introduction focuses predominately on the impact of stress on health – however, this is not mentioned as a specific objective of this research. Overall, the introduction needs some restructuring to more clearly explain the objective of the research.</p>
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	<ul style="list-style-type: none"> - A definition of stress is needed, including the relationship between stress and stressors. - Page 4, Line 13-17: "...literature relies on broad and nonspecific measurement of stress...and follows largely from theories from high income countries." More details (and references) are needed. What is a better way to measure stress? What are these theories in high income countries? If there are existing theories/frameworks from high income countries that describe the relationship you're looking at, it would be useful to outline these, highlighting how they may not be relevant to the contexts of your study. <p>Methods:</p> <ul style="list-style-type: none"> - What is the age range of participants? It would also be good to know how you are classifying adolescents vs young adults since definitions can vary. - More information is needed on recruitment: from what source did you select participants, how were participants approached? Why were those districts/villages chosen? - More information is needed on the research team and reflexivity. For example, who conducted/was present at interviews and what were their personal characteristics (e.g. gender/occupation/training and their existing relationships with participants). Either here or in the discussion, the authors should also reflect on the potential influence of these factors on the data and its interpretation - How were transcripts generated? Recordings or detailed notes? Were transcripts analysed in the original language or translated (and with one or two transcription/translation)? - Ethics: were any participants under the age of consent? If so, how was this handled? - The list of probes (lines 50-52) are a bit unclear. It would be helpful if these could be described in slightly more detail. - Data analysis: how were the three locations treated during the analysis? Were coding structures/themes identified for each location separately or were all interviews analysed together? - Page 7, Line 27: first set of data – what does this refer to? - In the data analysis, it would be useful to state that you've done inductive coding (from what I can gather – if your coding scheme is developed purely from the data rather than a pre-existing framework) <p>Results:</p> <ul style="list-style-type: none"> - Overall, more in-depth analysis is needed. The tables are fine, but the real value of this qualitative research would be to delve into the nuances of the participants' responses rather than tabulate the frequencies. In its current form, the text results read as a more of a listing of different stressors. What would be more interesting is perhaps to focus on fewer stressors but to engage more deeply with the data. For example, with "lack of basic necessities" - it's not particularly surprising that people are facing difficulties getting access to sufficient food/water. What would add more is looking at perhaps what are the main reasons people can't meet them – is it lack of money, crop failure, irregular markets etc? Are certain groups more or less likely to face shortfalls in meeting basic needs? What factors help/hinder a person in meeting getting their basic necessities? - More sub-group analysis in text would be useful – in particular, how did stressors/experiences differ across the 3 countries? Differences by age group (e.g. children still at home, young adults living independently) would also be interesting. There's a decent bit on male vs female differences, which is good.
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	<ul style="list-style-type: none"> - The interview guide suggests people are reporting on what they perceive to be stressors/coping mechanisms from others in the community, not necessarily their own experiences. The results suggest people are more reporting on what they experience. It would be good if the authors could clarify whether they probed on individual experiences during interviews and throughout the interpretation, it should be clearer when an individual is talking about something affecting them personally vs what they observe in others. - The cash transfer was mentioned in the introduction as a reason for selecting communities. Did anything about this come up in interviews (e.g. were people receiving it? How did it impact stressors/coping mechanisms?) - I would suggest reorganizing/renaming themes related to stressors. For example, non-poverty related stressors still have a strong connection with poverty (e.g. the quote of the woman getting pregnant because she is dating a man for money), while I'm sure droughts and other environmental shocks will have a direct effect on poverty in these agrarian economies. Similarly, difficulties going to school, poor health may be understood as poverty-related under a capability approach to understanding poverty. It may be useful to use an existing framework as a base for grouping these themes (e.g. vulnerability and chronic poverty – see work of Hulme, Moore & Shepherd for example). <p>Discussion:</p> <ul style="list-style-type: none"> - Greater engagement with literature relating to vulnerability and chronic and intergenerational poverty would be helpful. - Explain more how findings and their implications are (or are not) unique to the sample population (adolescents/young adults) - Pg 15, line 40: I didn't see anything in results about the effect of cash transfer/poverty alleviation programmes. This finding should be added to the results, or these statements need to be modified. - Pg 16, line 12-21: The Perceived Stress Scale has been validated in other contexts (see review by Lee 2012) <p>Some minor points:</p> <ul style="list-style-type: none"> - sustainable development goals agenda (line 8): better to refer to as Sustainable Development Goals or 2030 Agenda for Sustainable Development - Page 10, line 49: what's cutlass? Is it cut glass? - Page 11, Line 24-25 (around untimed pregnancy) – line before quote isn't a full sentence
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VERSION 1 – AUTHOR RESPONSE

Reviewer #1

Thank you for the opportunity to review your manuscript entitled: “A description of poverty-related stressors: A qualitative study in Ghana, Malawi, and Tanzania”. I believe that LMIC are an important cohort to investigate and this manuscript gives credence to the nuances that affect people daily. In addition, I commend the authors for the number of qualitative interviews conducted and can imagine the time involved in undertaking such an analysis.

I do believe there are a number of issues that need to be addressed in this manuscript before it is ready for publication.

Author's reply: We thank the reviewer for their positive appraisal of the potential for the manuscript.

Reviewer 1, comment 1:

Title: The title is slightly misleading since the authors have asked adolescents and young adults about their perceptions of stressors experienced by people who live in their communities. The title should be focused, indicating the age-range as well as the fact that they have asked for perceptions or experiences of stressors.

Author's reply: We agree. We have now revised the title as: Adolescents and young adult community perspectives on poverty related stressors: A qualitative study in Ghana, Malawi, and Tanzania

Reviewer 1, comment 2: Introduction/Background: The background of the study is quite sparse in terms of contextual information of the three countries. I would like a bit more information on the contextual nuances between these three countries and how that could influence the results. Moreover, why these three countries? What about them and their history makes them important to contextualise stress more so that the information we already have on stress?

Author's reply: We appreciate the reviewer's question. The reason for choosing these countries are twofold: we had established working relationships under the Transfer Project (a large scale multiple country cash transfer evaluation) and we were able to obtain funding to carry out the studies within these countries. We are limited in the space provided and scope of the paper to fully cover the "contextual nuances between these three countries" and "their history." However, we do agree that additional information could provide additional context for the reader and now added the following to the participants section of the paper:

"These three communities are similar but different enough to aid in developing an understanding of stress that may generalize across multiple contexts. There are several contextual and historical factors about these contexts worth noting. First, the prevalence of girls married by the age of 18 in Ghana, Malawi, and Tanzania was 21%, 42%, and 31%.³¹ Second, there are uneven secondary school completion rates, with 70%, 38% and 26% gross secondary school enrolments in Ghana, Malawi and Tanzania according to World Bank 2017 data. Third, all three countries were previously governed by the British. They gained independence in: 1957 Ghana; 1964 Malawi; 1964 Tanzania (merger of Tanganyika and Zanzibar). In 2017, the World Bank ranked Malawi and Tanzania as lower income countries and Ghana as a lower middle-income country. Fourth, each country has large rural population according to the World Bank: 45% Ghana, 83% Malawi, and 67% Tanzania. Fifth, each country has a large informal sector according to the World Bank Enterprise Surveys. In Ghana, Malawi and Tanzania, respectively 69%, 72%, and 73% of firms compete against unregistered or informal firms."

Reviewer 1, comment 3: I am not convinced that the literature in this area of stress and coping has been adequately covered.

Author's reply: We agree. In the previous manuscript, we attempted to adhere to the word limits, and therefore presented a shorter background. We now added two paragraphs that we think provides a more thorough background for the study, beginning on page 4.

"Prevailing stress theories are derived largely from high-income contexts and may not provide the most complete framework to understand stress globally and in non-western LMIC countries in particular. The transactional stress theory defines stress as the experience of a stimulus as threatening and an appraisal of the degree to which this stimulus can be managed within a person's available coping repertoire.⁹ This model of stress has been critiqued as it suggests appraisal (rather than objective reality) is central to the stress process. Others have argued that the possession of resources (e.g., economic, material) determines whether a person can deal effectively with the

demands of a stressor. According to the Conservation of Resources Theory, the ability to overcome stressors is predicated on the availability of needed resources that can be mobilized to overcome adverse events.¹⁰ Further, losses and gains to resources are central to how a person experiences stress.

Within LMIC, chronic poverty largely shapes the availability of resources to mobilize, and may set boundaries around adaptive coping processes.¹¹ Active and problem focused coping strategies are associated with better health outcomes but are conditioned on the ability of a community to actively change aspects of their environment.^{12,13} In contrast, avoidant coping, or emotion focused coping, while less likely to alleviate the stressor directly, are often used when more active strategies are not possible. Within communities experiencing chronic poverty, these are often employed when environments cannot be changed.^{14,15}

Reviewer 1, comment 4: One of the statements made is that ‘research is needed to further contextualise stress’. I am not sure what the intention is with that statement. i.o.w, is it to understand/describe/explain how stress is experienced per country or objectively define stress more thoroughly?

Author’s reply: We agree this could be clearer. Our intention is that much of the literature on stress and coping, and the identification of key stressors, has been conducted in high income countries. The measures of stress are also developed for use in these countries. Therefore, it is critical to give voice to diverse perspectives on stress so that they can be included in future research. One of the key aims of the current research was to inform the development of a context specific stress scale. Therefore, the study aim was more descriptive than theoretical. We deleted the previous sentence and replaced it with the following:

“Additional studies are needed that focuses on defining stress within LMIC, to inform the measurement of stress within these contexts.”

Reviewer 1, comment 5: Method: The design is not clearly defined – is it a descriptive or exploratory study? Qualitative is not a research design.

Author’s reply: We now specify the nature of our research study design on page 6.

“This descriptive qualitative study focused specifically on adolescents and young adults, which is the age-range during which many mental health problems first manifest³⁰ and may affect transitions to adulthood.”

Reviewer 1, comment 6: What kind of thematic analysis was conducted? Thematic analysis as a technique can be quite broadly defined and used. It would be helpful to know for replication purposes which kind of thematic analysis was used.

Author’s reply: We now clarify the analysis approach that was taken in the study:

“Data were analyzed with NVivo 11 Plus³² using inductive qualitative thematic analysis following a six-phase process.³³”

Reviewer 1, comment 7: How do the authors address the fact that 50% of the interviews analysed from Tanzania and how this might influence the results?

Author’s reply: When evaluating differences in responses countries, we calculated percentages to make the data comparable. We included this information in the tables. To ensure equal representation

in the results section, we made sure to have equal number of extracts per country and per sex (4 extracts from Tanzanian females, 4 extracts from Tanzanian males, etc.), and per sex and age (6 extracts from females below 18, 6 extracts from females 18 above, etc.)

Reviewer 1, comment 8: It seems a bit pedantic to have the patient statement when it is not indicated?

Author's reply: We followed journal editorial conventions, and this statement is mandatory. See: <https://blogs.bmj.com/bmjopen/2018/03/23/new-requirements-for-patient-and-public-involvement-statements-in-bmj-open/>

Reviewer 1, comment 9: The ethics need to be elaborated upon – I did not see anything related to informed consent, confidentiality etc., especially where the researchers themselves were not involved in data collection. This makes ethics quite a bit issue which needs to be addressed.

Author's reply: We previously included an ethics statement at the end of the data analysis section: Ethical approval for the study was obtained from COSTECH in Tanzania, University of Malawi ethics committee in Malawi and the ethics committee at Navrongo Health Research Centre in Ghana.

We agree that it could be elaborated, and appreciate the reviewer's comment. We now include the following statement in addition to our previous statement about approval:

In all countries, adults provided informed consent for their own participation and consent for interviews with minors. Minors (<18 years old) provided assent, following standard ethical procedures.

Reviewer 1, comment 11: Results: Please indicate how the results are to be structured. This will make for easier reading.

Author's reply: We now add a statement about how we will structure the results on page 5.

We organize the results in a broad framework encompassing 1) stressors related to poverty and the lack of basic necessities, 2) additional stressors that worsen poverty-related stress, 3) impacts of these stressors on functioning, health, and well-being, and 4) coping strategies used by community members. Participants report stress related to the lack of basic necessities, which is due to income generation issues and poor community infrastructure and facilities. Additional stressors, including environmental stressors; safety; weak social capital; untimed pregnancy; and death of a parent or guardian, worsened poverty-related stress. These stressors were linked to difficulties in daily functioning, health, well-being, and education. Coping repertoires were bound due to constraints of poverty, and negative and positive coping behaviors were identified.

Reviewer 1, comment 12: The results read like a summary – it is more 'point-form' and much of the possible meaning and contextual information is lost. For example, the authors state "Stress induced by difficulties – affected interpersonal relationships" – my question would be how does this happen within these countries and according to the participants?

Author's reply: We agree that the results were vague at times, and needs to be explained better. We added the following description:

"They displace the stress they experience to others. They do not socialize much because they have no money to spend, feel tired or sick, or are preoccupied with resolving or thinking about their problems."

Reviewer 1, comment 13: The evidence provided by excerpts do not sufficiently support the need for a particular theme – please provide more excerpts/extracts.

Author's reply: Thank you for the suggestion. In the original paper we were trying to be respectful of the word limit so we omitted many useful passages. We agree that more excerpts would help explain the themes more fully. In the revision, we increased the number of excerpts from 9 to 24.

Reviewer 1, comment 14: Discussion: The discussion lacks depth. I suspect this might be remedied with more literature in the background of the paper. My main question is how does this paper tell us what we do not know about poor countries and the stressors they endure which are mostly poverty-related?

Author's reply: We appreciate this comment. The goal of this study was to describe the stressors that the study communities experienced in order to develop a more specific catalog of stressors and coping behaviors, which could be utilized to enhance the measurement of stress in future studies. Although some of the material generated might be expected, we believe it is nevertheless useful to undertake the study to define these stressors from local perspectives.

We added the following material to discuss the findings from the transactional stress model:

“Appraisals about the nature of stressors and available coping resources did not emerge in the community narratives, which did not lend support to the transactional stress model (Lazarus & Folkman). Rather, coping processes were described as bounded within the economic and resource constraints in the communities. Poverty restricts the coping repertoires available within the community.”

Reviewer 1, comment 15: The authors state that the findings are not generalizable – this seems redundant given that it is a qualitative study and generalizability is not the aim. The aim is depth of information and I am not convinced that this analysis and presentation of discussion achieves this aim. I am also not convinced that the model is appropriate.

Author's reply: We have now removed generalizability as a limitation.

Reviewer 1, comment 16: The age range of the participants is an important contributing factor to the results of the study. There is not enough information of the state of young adults from these countries in the background of the paper in order to address this factor in the discussion.

Author's reply: We now add more information about the populations under study on page 5, and 6.

“This descriptive qualitative study focused specifically on adolescents and young adults, which is the age-range during which many mental health problems first manifest³⁰ and may affect transitions to adulthood. Indeed, in previous impact evaluations, the prevalence of depression in Tanzania was 63% and 47% in Malawi.”

“These three communities are similar but different enough to aid in developing an understanding of stress that may generalize across multiple contexts. There are several contextual and historical factors about these contexts worth noting. First, the prevalence of girls married by the age of 18 in Ghana, Malawi, and Tanzania was 21%, 42%, and 31% of (according to girls not brides). Second, there are uneven secondary school completion rates, with 70%, 38% and 26% gross secondary school enrolments in Ghana, Malawi and Tanzania according to World Bank 2017 data. Third, all three countries were previously governed by the British. They gained independence in: 1957 Ghana; 1964 Malawi; 1964 Tanzania (merger of Tanganyika and Zanzibar). In 2017, the World Bank ranked

Malawi and Tanzania as lower income countries and Ghana as a lower middle-income country. Fourth, each country has large rural population according to the World Bank: 45% Ghana, 83% Malawi, and 67% Tanzania. Fifth, each country has a large informal sector according to the World Bank Enterprise Surveys. In Ghana, Malawi and Tanzania, respectively 69%, 72%, and 73% of firms compete against unregistered or informal firms.”

Reviewer 1, comment 17: I am not sure about the need to differentiate between poverty-related stress and non-poverty-related stress. Is it the significance of the long-lasting consequences of poverty? Then this needs to be explained better.

Author’s reply: Thank you for the comment. We reviewed the data and the paper and decided to remove the distinction between poverty-related and non-poverty related stress. We made considerable changes in the results section. The summary we added in page 5 (see below) presents a new narrative that we believe makes the results more coherent and meaningful, and more aligned with the participants’ stories and experiences:

“Participants report stress related to the lack of basic necessities, which is due to income generation issues and poor community infrastructure and facilities. Additional stressors, including environmental stressors; safety; weak social capital; untimed pregnancy; and death of a parent or guardian, worsened poverty-related stress. These stressors were linked to difficulties in daily functioning, health, well-being, and education. Coping repertoires were bound due to constraints of poverty, and negative and positive coping behaviors were identified.”

Reviewer #2

There is a lot of potential in this paper, although it needs further revisions before publication. Overall, the research aim needs to be clearer throughout – for example, the introduction/discussion focuses heavily on the impact of stress on health, but this isn’t reflected in the objectives and only in passing in the results. The findings could also be better organized to provide a more coherent, nuanced analysis. Specific suggestions are detailed below.

Author’s reply: We appreciate the reviewer’s positive assessment of the paper, and the detailed feedback offered for the revision.

Reviewer 2, Comment 1: Introduction - The introduction focuses predominately on the impact of stress on health – however, this is not mentioned as a specific objective of this research. Overall, the introduction needs some restructuring to more clearly explain the objective of the research.

Author’s reply: We agree. We have now restructured the introduction to focus more clearly on the study objectives. This study was conducted primarily to identify the stressors experienced within poor agrarian sub-Saharan African contexts in order to provide a foundation for the development of a more specific scale to measure stress within these contexts. The overall motivation for this study was the failure of the Cohen’s Stress scale to detect improvements in stress following a cash transfer intervention program. UNICEF was motivated to improve the measurement of stress since it is conceptualized as a key mediating pathway through which cash transfer interventions accrue benefits to a recipient population.

We now add the following on page 5:

Additional studies are needed that focuses on defining stress within LMIC, to inform the measurement of stress within these contexts, since stress is theorized as a critical mediating pathway through which cash transfer interventions are effective (Hjelm et al., 2017). However, previous impact evaluations

failed to detect impacts on stress, measured by the Cohen's Stress Scale, suggesting that inadequate conceptualization of stress could be one factor accounting for this unexpected finding (Hjelm et al., 2017).

Reviewer 2, Comment 2: A definition of stress is needed, including the relationship between stress and stressors.

Author's reply: We avoided an explicitly defining stress in our original manuscript since one of the goals of the work was to explore stress within this context. We now revise our paper to provide two competing stress theories and their definitions of stress more clearly on page 4 and 5.

Reviewer 2, Comment 3: Page 4, Line 13-17: "...literature relies on broad and nonspecific measurement of stress...and follows largely from theories from high income countries." More details (and references) are needed. What is a better way to measure stress? What are these theories in high income countries? If there are existing theories/frameworks from high income countries that describe the relationship you're looking at, it would be useful to outline these, highlighting how they may not be relevant to the contexts of your study.

Author's reply: We agree and have made these theories and definitions more explicit. See Comment 2 above.

Reviewer 2, Comment 4: Methods: What is the age range of participants? It would also be good to know how you are classifying adolescents vs young adults since definitions can vary.

Author's reply: We appreciate this feedback and now added a sentence to clarify this on page 8.

"The age range for adolescents was from 15 to 18, and young adults were 18 and 24."

Reviewer 2, Comment 5: More information is needed on recruitment: from what source did you select participants, how were participants approached? Why were those districts/villages chosen?

Author's reply: We agree this information is important to include. WE now add the following sentence on page 9:

Survey firms were asked to select villages that were reasonably representative of the rural population in the country. Within villages, senior village members assisted in recruitment by selecting interviewees by age and sex strata.

Reviewer 2, Comment 6: More information is needed on the research team and reflexivity. For example, who conducted/was present at interviews and what were their personal characteristics (e.g. gender/occupation/training and their existing relationships with participants). Either here or in the discussion, the authors should also reflect on the potential influence of these factors on the data and its interpretation

Author's reply: We agree this is an important issue to explore and report. We now include a statement on reflexivity in the methods on page 7:

"These research teams were not known to community members before the interviews took place. Some participants may have been disinclined to share their information since interviewers were unfamiliar to them. Interviewers were matched to interviewees by sex to mitigate bias in the interviews."

Reviewer 2, Comment 7: How were transcripts generated? Recordings or detailed notes? Were transcripts analysed in the original language or translated (and with one or two transcription/translation)?

Author's reply: We agree these details should be reported. We now add this information in the methods section of the revised manuscript, on page 8.

"All interviews were recorded and transcribed first into the local language, and then translated once into English for analysis."

Reviewer 2, Comment 8: Ethics: were any participants under the age of consent? If so, how was this handled?

Author's reply: Yes, half of the study participants were under 18. In these instances, informed consent was sought from adults in addition to assent from adolescents.

The following statement now appears on page 10.

"In all countries, adults provided informed consent for their own participation and consent for interviews with minors. Minors (<18 years old) provided assent, following standard ethical procedures."

Reviewer 2, Comment 9: The list of probes (lines 50-52) are a bit unclear. It would be helpful if these could be described in slightly more detail.

Author's reply: We have now added an additional sentence related these probes:

"These follow-up probes were decided during field training by the interviewers and applied during interviews using local languages."

Reviewer 2, Comment 10: Data analysis: how were the three locations treated during the analysis? Were coding structures/themes identified for each location separately or were all interviews analysed together?

Author's reply: Each location was analyzed separately, but the same coding scheme was applied across contexts. New codes were added when new themes did not match existing codes. We added this information in page 5:

"We analyzed data from Tanzania first, then created a coding frame. We then analyzed data from Malawi then Ghana using the coding frame. We accommodated new themes by adding new codes into the coding frame."

Reviewer 2, Comment 11: Page 7, Line 27: first set of data – what does this refer to?

Author's reply: We now clarify this by adding these sentences on page 9:

"We analyzed data from Tanzania first, then created a coding frame. We then analyzed data from Malawi then Ghana using the coding frame. We accommodated new themes by adding new codes into the coding frame."

Reviewer 2, Comment 12: In the data analysis, it would be useful to state that you've done inductive coding (from what I can gather – if your coding scheme is developed purely from the data rather than a pre-existing framework)

Author's reply: We agree this should be made explicit in the paper. We now add the following information to the methods on page 9.

“Data were analyzed with NVivo 11 Plus [22] using inductive qualitative thematic analysis following a six-phase process. [23]”

Reviewer 2, Comment 13: Overall, more in-depth analysis is needed. The tables are fine, but the real value of this qualitative research would be to delve into the nuances of the participants' responses rather than tabulate the frequencies. In its current form, the text results read as a more of a listing of different stressors. What would be more interesting is perhaps to focus on fewer stressors but to engage more deeply with the data. For example, with “lack of basic necessities” - it's not particularly surprising that people are facing difficulties getting access to sufficient food/water. What would add more is looking at perhaps what are the main reasons people can't meet them – is it lack of money, crop failure, irregular markets etc? Are certain groups more or less likely to face shortfalls in meeting basic needs? What factors help/hinder a person in meeting getting their basic necessities?

Author's reply: Thank you for the suggestions, these were helpful in our re-review of the data and the paper. We made considerable changes in the results section. The summary we added in page 5 (see below) presents a new narrative that we believe makes the results more coherent and meaningful, and more aligned with the participants' stories and experiences:

“Participants report stress related to the lack of basic necessities, which is due to income generation issues and poor community infrastructure and facilities. Additional stressors, including environmental stressors; safety; weak social capital; untimed pregnancy; and death of a parent or guardian, worsened poverty-related stress. These stressors were linked to difficulties in daily functioning, health, well-being, and education. Coping repertoires were bound due to constraints of poverty, and negative and positive coping behaviors were identified.”

Reviewer 2, Comment 14: More sub-group analysis in text would be useful – in particular, how did stressors/experiences differ across the 3 countries? Differences by age group (e.g. children still at home, young adults living independently) would also be interesting. There's a decent bit on male vs female differences, which is good.

Author's reply: We agree that comparisons on sub-groups would be useful. We added information on differences in frequencies in terms of: lack of school expenses and effect on studies (higher frequencies in the young), lack of medical care (higher among the older respondents), environmental stressors (higher in Malawi; higher in males), safety concerns (higher in the young), risk-taking (higher in Tanzania), and untimed pregnancy (higher in females).

Reviewer 2, Comment 15: The interview guide suggests people are reporting on what they perceive to be stressors/coping mechanisms from others in the community, not necessarily their own experiences. The results suggest people are more reporting on what they experience. It would be good if the authors could clarify whether they probed on individual experiences during interviews and throughout the interpretation, it should be clearer when an individual is talking about something affecting them personally vs what they observe in others.

Author's reply: This is an important observation. The participants were asked to provide details about community stressors from their understanding. We utilized this approach to ensure that participants

would be more comfortable disclosing potentially stigmatizing material, for example, engaging in exchange sex, or their own mental health issues. Throughout the interviews, participants disclosed their own material since they felt comfortable to do so, and the extracts represent these personal accounts.

We now expand on our previous paragraph describing these methods, to highlight the reasons for our approach:

“Participants were asked to report about their community rather than personal experiences, to reduce potential the concealment of stressors that may evoke embarrassment or stigma.”

Reviewer 2, Comment 16: The cash transfer was mentioned in the introduction as a reason for selecting communities. Did anything about this come up in interviews (e.g. were people receiving it? How did it impact stressors/coping mechanisms?)

Author’s reply: None of the participants explicitly mentioned cash transfer in their interviews.

Reviewer 2, Comment 17: I would suggest reorganizing/renaming themes related to stressors. For example, non-poverty related stressors still have a strong connection with poverty (e.g. the quote of the woman getting pregnant because she is dating a man for money), while I’m sure droughts and other environmental shocks will have a direct effect on poverty in these agrarian economies. Similarly, difficulties going to school, poor health may be understood as poverty-related under a capability approach to understanding poverty. It may be useful to use an existing framework as a base for grouping these themes (e.g. vulnerability and chronic poverty – see work of Hulme, Moore & Shepherd for example).

Author’s reply: Thank you for the suggestion. We changed the result section to address the issue.

Reviewer 2, Comment 18: Greater engagement with literature relating to vulnerability and chronic and intergenerational poverty would be helpful.

Author’s reply: Although we agree additional material may be useful, there are few studies within these contexts to report in this paper. Moreover, the word length is now considerably longer than recommended by the journal. For this reason, we ask if the reviewer has a specific reference that could be helpful, and if so, we would be willing to consider including in a subsequent revision.

Reviewer 2, Comment 19: Explain more how findings and their implications are (or are not) unique to the sample population (adolescents/young adults)

Author’s reply: Although it may be useful to add additional material that compares and contrasts adolescent and adults populations, we believe this is beyond the scope of the current descriptive study.

Reviewer 2, Comment 20: Pg 15, line 40: I didn’t see anything in results about the effect of cash transfer/poverty alleviation programmes. This finding should be added to the results, or these statements need to be modified.

Author’s reply: Participants did not mention cash transfer programs.

Reviewer 2, Comment 21: Pg 16, line 12-21: The Perceived Stress Scale has been validated in other contexts (see review by Lee 2012)

Author's reply: We appreciate this citation. We now integrate this in our paper.

Reviewer 2, Comment 21: sustainable development goals agenda (line 8): better to refer to as Sustainable Development Goals or 2030 Agenda for Sustainable Development

Author's reply: We appreciate the reviewer pointing this out. It is now modified in the paper.

Reviewer 2, Comment 22: Page 10, line 49: what's cutlass? Is it cut glass?

Author's reply: A cutlass is a slashing sword. We now add a definition in the revised paper.

Reviewer 2, Comment 23: Page 11, Line 24-25 (around untimed pregnancy) – line before quote isn't a full sentence

Author's reply: This sentence is now revised.

VERSION 2 – REVIEW

REVIEWER	Lena Banks LSHTM, UK
REVIEW RETURNED	29-May-2019

GENERAL COMMENTS	<p>I appreciate the efforts by the authors to revise the paper and provide feedback to specific comments. The data underlying this research is substantial and may make it suitable for publication in BMJ Open; however, the paper still needs revisions. My main issue is that the paper in its current state overreaches in its scope and conclusions, based on what has been presented in the methods and results. The paper also requires editing for clarity, as the purpose and main findings are not always.</p> <p>Throughout:</p> <ul style="list-style-type: none">• The research aim gets diluted in parts of the paper. I understand your aim to be identifying sources of stress and how people cope, with some discussion on the impact of stressors (although there weren't specific questions on this in the topic guide). However, this aim can get lost with the discussion about the validity of existing tools for measuring <i>levels</i> of stress, discussion on the impact of cash transfers, etc.• The introduction and discussion focus a lot on whether available tools are adequate to measure stress in LMIC settings. It is true that there are issues in the transferability of these tools from high income contexts to low income contexts. However, this does not appear to be the focus of your research. This research explores sources of stress and how people cope. The tools you cite quantitatively measure <i>levels</i> of stress, rather than sources. Further, this research also does not assess the validity of any existing
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	<p>tools (e.g. compare quantitative assessments on level of stress to what people self-report about their own experience of stress). Consequently, I don't feel that you're able to draw any conclusions on the validity of these tools from your own research (you can cite others research – e.g. Sweetland et al 2014¹ - but again, I don't think too much emphasis should be put on this since it wasn't the focus of this study). I suggest reframing your introduction and the rest of the paper to reflect your study's aim (i.e. rather than discussing whether these tools are effective at measuring levels of stress in LMICs, you can emphasize that most research assesses levels of stress (and you can mention briefly that there are issues in the transferability of these tools), but less is known on sources and impact of stress, as well as what coping strategies people use – and this information is useful for informing policy/programmatic responses).</p> <ul style="list-style-type: none"> • The paper is described as focusing on poverty-related stressors – however, the topic guide includes questions on stressors in general. Were the only stressors that were reported linked to poverty in some way (which would be an important finding)? Or is this paper only concentrating on data on poverty-related stressors (which would be fine, but needs to be clear)? • Cash transfers are mentioned in several places, however I'm not sure how they figure in to the research outside of the fact that these programmes operated in the area. The only relevant finding on cash transfers is that they were not mentioned by respondents as a coping strategy – however respondents were not asked specifically about them and I'm not convinced the questions as listed in the topic guide would bring this out. Additionally, given the age of the study sample (i.e. adolescents/young adults), I wouldn't be surprised if many knew little about these programmes – it's highly likely it would be their parents – not them – who would be applying for and receiving cash benefits, particularly for minors. <p>Title</p> <ul style="list-style-type: none"> • Wording of title is confusing. Suggest rewording to “Perspectives of adolescents and young adults on poverty-related stressors in their communities....” or similar <p>Abstract</p> <ul style="list-style-type: none"> • “Participants” should mention how they were recruited • Conclusions should be updated to reflect requested revisions throughout the text <p>Introduction</p>
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¹ Sweetland, A. C., Belkin, G. S., & Verdelli, H. (2014). Measuring depression and anxiety in sub-saharan Africa. *Depression and anxiety*, 31(3), 223-232.

	<ul style="list-style-type: none"> • The introduction still needs revisions, as it can be difficult to follow and the study aims gets lost. Some suggestions below: <ul style="list-style-type: none"> ○ The first two paragraphs focuses too narrowly on health, but your research also covers the impacts of stressors in other areas. ○ Overall, there needs to be a clearer background to provide the rationale of this study. i.e. Emphasize why it's important to identify sources of stress – not just levels - and how people cope with stress. What evidence is there existing on sources of stress/coping mechanisms in the areas (or region) of your study? There's a bit of discussion on gaps, which is good, but focus this more so that it's in line with what the study addresses. • Other comments to the introduction: <ul style="list-style-type: none"> ○ “Indeed, in previous impact evaluations, the prevalence of depression in Tanzania was 63% and 47% in Malawi.” This needs a reference and more detail. Impact evaluations of what interventions? Also how was depression measured, because those figures are extremely high if this is clinical depression and in a general population sample. ○ “However, previous impact evaluations of cash transfers failed to detect impacts on stress, measured by the Cohen’s Stress Scale, suggesting that inadequate conceptualization or measurement of stress could be one factor accounting for this unexpected finding.” I wouldn’t use this as evidence that the scale is inadequate – this could be because of many other reasons (e.g. relative poverty more important than absolute poverty in determining stress levels; cash transfer amount is too small to make an appreciable difference in someone’s life) – review by Sweetland et al (2014) does have more robust critiques on the transferability of these tools if of interest. However, as mentioned in the point above, I think discussions on the validity of these measures should be kept very brief, since your study didn’t assess this and it makes it more difficult to understand the study’s purpose. ○ Some of the detail about the study contexts is excessive (years of independence, child marriage). Contextualising information relevant to the study purpose would be useful (e.g. prevalence of poverty, particularly in rural areas; findings from studies about stress(ors) in those areas). <p>Methods</p> <ul style="list-style-type: none"> • Justification is needed for why adolescents and young adults were asked about their perspectives of stressors of all people in the community, rather peers their age. I note
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	<p>that in the introduction it says this group was chosen because it's when mental health problems first manifest – however, participants were not asked about their own experiences or that of their peers. It's unclear to me why a specific age cohort (i.e. young adults/adolescents) was asked to report on perceived sources of stress, coping strategies etc for all people in the community. This approach potentially biases results, as it may overlook/underestimate the experience of people in the community who do not belong to this age group (e.g. working-age adults, older adults).</p> <ul style="list-style-type: none"> • “Survey firms were asked to select villages that were reasonably representative of the rural population in the country” – Reasonably representative based on what factors? • I see some information on reflexivity has been added, but more detail is needed. I suggest referring to the reporting guidelines provided by BMJ (SRQR) • “Qualitative data analysis” needs editing for clarity. <ul style="list-style-type: none"> ○ “We accommodated new themes by adding new codes into the coding frame” Do you mean you expanded the initial coding frame (from Tanzania) with additional codes (rather than themes) that emerged in the Malawi/Ghana data? Or did you generate themes based primarily on Tanzania data? ○ “Analysis began with a process of immersion where each author read several transcripts from the first set of data and noted initial thematic codes together.” For clarity, change “first set of data” to Tanzania interviews (or similar). Also were interviews divided up amongst authors (single review) or were interviews dually reviewed/coded? ○ “Initial thematic codes” – do you mean the coding frame? ○ “We generated initial codes by coding text that discussed stressors and coping strategies” What about codes for impact? ○ “The rest of the analysis was conducted by the first and second authors (BJH, MRG), with regular discussions with the other authors for their comments and suggestions. We generated initial codes by coding text...” This contradicts the above - I thought the coding structure was developed by all the author. And to be clear, does “the rest of the analysis” mean coding all the transcripts and finalizing themes? ○ “For each code, we collated relevant text examples.” This is redundant – coding text in NVivo means you’re collating text (and it should be all relevant text, not examples) ○ Heading can also simply be “data analysis”. <p>Results</p>
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- Tables 2-5 can be put as web appendices, particularly if short on word count. This is a very large qualitative study and so some semi-quantification in text is helpful (e.g. most frequently reported stressors, stressor X or Y was mentioned by over half/almost all/none of participants). However, it can be misleading to use frequencies, since this isn't a quantitative survey (and therefore your sample isn't powered or selected to be representative, and since you don't have a survey tool explicitly asking about each of these stressors, causes etc, you can't say with certainty that they weren't issues for the participants).
- Analysis may be strengthened by applying an existing framework to your results and highlighting similarities or differences.
- There's not enough discussion around the quotes – currently it feels more of a listing than an in-depth analysis, particularly for the identification of stressors.

Discussion

- Overall, it needs to be clearer what the main findings of the research are and what are their implications – the current implications do not follow from the results (i.e. see above on cash transfers, implications for tools measuring stress levels). If the above comments are addressed, this should become clearer.
- “The general framework that emerged from this study involved two main sources of stress – all related to poverty” What framework? The results were a descriptive analysis, but I didn't see the development of a framework.
- “The mixed evidence from cash transfer interventions and the results from our current study suggest the need for new quantitative measures of stress.” – As above, I don't think you're able to say this from your research. There are other reasons why cash transfers might not reduce stress, you didn't specifically investigate the impact of cash transfers and your research was not focused on the validity of tools that quantitative measure levels of stress.
- “Any new stress scale should differentiate between poverty and non-poverty-related stressors to enable a more nuanced view of the source and type of stressors experienced...” But this isn't the purpose of the scales you've cited – they are to measure levels of stress, not sources. None of the questions they ask are specific to sources either.

Minor edits:

- First line of introduction missing a period.
- “suggest that key stressors involve economic conditions and social relationships.g.” – rest of sentence is missing
- “stressors on functioning, health, and well-being” – should be well-being
- Referencing format is not consistent
- Check for consistency in tenses

	<ul style="list-style-type: none">• Acronym for GBV needs to be defined
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VERSION 2 – AUTHOR RESPONSE

Reviewer 1

Reviewer 1, Comment 1: I appreciate the efforts by the authors to revise the paper and provide feedback to specific comments. The data underlying this research is substantial and may make it suitable for

publication in BMJ Open; however, the paper still needs revisions. My main issue is that the paper in its current state overreaches in its scope and conclusions, based on what has been presented in the methods and results. The paper also requires editing for clarity, as the purpose and main findings are not always.

Author's reply: We thank the reviewer for their positive comments on our revised paper, and continued support of revisions that will ensure a solid contribution to the field.

Reviewer 1, Comment 2: The research aim gets diluted in parts of the paper. I understand your aim to be identifying sources of stress and how people cope, with some discussion on the impact of stressors (although there weren't specific questions on this in the topic guide). However, this aim can get lost with the discussion about the validity of existing tools for measuring levels of stress, discussion on the impact of cash transfers, etc.

Author's reply: We thank the reviewer for their comment. We believe that these points are relevant to work for the following reasons. First, the context where these studies were conducted were recipients of cash transfers, and the overall purpose of understanding stress in these contexts is to focus our assessments of stress in a culturally and contextually appropriate manner. Western tools that are typically used to measure stress may not be adequate or specific for these communities. Within the field of global health, scholars are recognizing the potential shortcomings of using tools without validation and adaptation. The present study will inform efforts to assess stress more accurately in the context. Given this larger context for the work, we would prefer to keep these elements in the paper. However, we have now made this clearer and sharpened the focus of the work, and followed the reviewer's guidance on pieces we could omit from the revised manuscript.

To better articulate the purpose and context of this work, we now add a specific statement following the purpose statement on page 7: "These aims articulate with UNICEF's plan to develop a context specific stress assessment tool and within the aim to examine impacts of poverty alleviation programs on stress (i.e., cash transfers).

Reviewer 1, Comment 3: The introduction and discussion focus a lot on whether available tools are adequate to measure stress in LMIC settings. It is true that there are issues in the transferability of these tools from high income contexts to low income contexts. However, this does not appear to be the focus of your research. This research explores sources of stress and how people cope. The tools you cite quantitatively measure levels of stress, rather than sources. Further, this research also does not assess the validity of any existing tools (e.g. compare quantitative assessments on level of stress to what people self-report about their own experience of stress). Consequently, I don't feel that you're able to draw any conclusions on the validity of these tools from your own research (you can cite others research – e.g. Sweetland et al 20141 - but again, I don't think too much emphasis should be put on this since it wasn't the focus of this study). I suggest reframing your introduction and the rest of the paper to reflect your study's aim (i.e. rather than discussing whether these tools are effective at measuring levels of stress in LMICs, you can emphasize that most research assesses levels of stress (and you can mention briefly that there are issues in the transferability of these tools), but less is known on sources and impact of stress, as well as what coping strategies people use – and this information is useful for informing policy/programmatic responses).

Author's reply: We thank the reviewer for raising these concerns. It is correct that we did not test the validity of the tools we mention. However, one of the motivations for this work is to contextualize stress in this context to inform future adaptation of stress measurements. Overall, we agree with this suggestion, and believe it allows us to continue to highlight the measurement concerns we originally included, in addition to highlighting other applications of this work.

Reviewer 1, Comment 4: The paper is described as focusing on poverty-related stressors – however, the topic guide includes questions on stressors in general. Were the only stressors that were reported linked to poverty in some way (which would be an important finding)? Or is this paper only concentrating on data on poverty-related stressors (which would be fine, but needs to be clear)?

Author's reply: We appreciate the reviewer raising this point. We asked people to report about stresses in general. Their responses were largely focused around poverty-related stressors. We now highlight this explicitly since as the reviewer suggest, is a finding. We add the following to the discussion:

“This is notable as the interview questions did not specifically focus on poverty-related stressors.”

Reviewer 1, Comment 5: Cash transfers are mentioned in several places, however I'm not sure how they figure in to the research outside of the fact that these programmes operated in the area. The only relevant finding on cash transfers is that they were not mentioned by respondents as a coping strategy – however respondents were not asked specifically about them and I'm not convinced the questions as listed in the topic guide would bring this out. Additionally, given the age of the study sample (i.e. adolescents/young adults), I wouldn't be surprised if many knew little about these programmes – it's highly likely it would be their parents – not them – who would be applying for and receiving cash benefits, particularly for minors.

Author's reply: We agree, but we do not believe our study discussion needs to be so narrowly focused. Given the majority of people reported poverty-related stressors, mentioning the larger cash transfer program implementation is not irrelevant.

Reviewer 1, Comment 6: Title Wording of title is confusing. Suggest rewording to "Perspectives of adolescents and young adults on poverty-related stressors in their communities...." or similar

Author's reply: We agree and rephrased the title.

Reviewer 1, Comment 7: Abstract "Participants" should mention how they were recruited. Conclusions should be updated to reflect requested revisions throughout the text

Author's reply: This is now updated to: "Although participants were asked to provide general reflections about stress in their community, the salience of poverty-related stressors was ubiquitously reflected in respondents' responses. Poverty-related stressors affect development, well-being, and gender-based violence. Future research should focus on interventions to alleviate poverty-related stress to achieve the UN Sustainable Development Goals."

Reviewer 1, Comment 8: The first two paragraphs focuses too narrowly on health, but your research also covers the impacts of stressors in other areas.

Author's reply: Our lens is health. We are examining stressors since they are consequential on community health and well-being, and state the direct linkage between these stressors and the UN Sustainable Development Goals.

Reviewer 1, Comment 9: Overall, there needs to be a clearer background to provide the rationale of this study. i.e. Emphasize why it's important to identify sources of stress – not just levels - and how people cope with stress. What evidence is there existing on sources of stress/coping mechanisms in the areas (or region) of your study? There's a bit of discussion on gaps, which is good, but focus this more so that it's in line with what the study addresses.

Author's reply: We agree and have now added that types of stressors are key to explore and formulate a clearer picture for intervention pathways. We already mention that there were no studies identified that measure general stress in our contexts, which is in part why the study is novel. We also mention that previous studies in LMIC speak directly to the relevance of social and economic stressors in the communities studied. Little if any work explicitly targeted coping and stress in these contexts. We now added a sentence to highlight the novelty of our work and our focus on types of stressors as the reviewer rightly points out.

“Limited qualitative inquiries have attempted to define stress and sources of stress in LMIC. It is important to identify types of stressors since this information helps to focus potential intervention pathways, increase measurement specificity, and lead to a richer conceptualization of the burden of stress in these communities.”

Reviewer 1, Comment 10: “Indeed, in previous impact evaluations, the prevalence of depression in Tanzania was 63% and 47% in Malawi.” This needs a reference and more detail. Impact evaluations of what interventions? Also how was depression measured, because those figures are extremely high if this is clinical depression and in a general population sample.

Author’s reply: We decided the sentence is not essential and removed it.

Reviewer 1, Comment 11: “However, previous impact evaluations of cash transfers failed to detect impacts on stress, measured by the Cohen’s Stress Scale, suggesting that inadequate conceptualization or measurement of stress could be one factor accounting for this unexpected finding.” I wouldn’t use this as evidence that the scale is inadequate – this could be because of many other reasons (e.g. relative poverty more important than absolute poverty in determining stress levels; cash transfer amount is too small to make an appreciable difference in someone’s life) – review by Sweetland et al (2014) does have more robust critiques on the transferability of these tools if of interest. However, as mentioned in the point above, I think discussions on the validity of these measures should be kept very brief, since your study didn’t assess this and it makes it more difficult to understand the study’s purpose.

Author’s reply: We agree this sentence is not essential and so it was removed.

Reviewer 1, Comment 12: Some of the detail about the study contexts is excessive (years of independence, child marriage). Contextualising information relevant to the study purpose would be useful (e.g. prevalence of poverty, particularly in rural areas; findings from studies about stress(ors) in those areas).

Author’s reply: We thank the reviewer for this comment. We added this information based on previous reviewer comments and suggestions. Unless there is a compelling reason to do so, we believe this information also adds information about the context and comparability between countries (the previous reviewers’ request).

Reviewer 1, Comment 13: Justification is needed for why adolescents and young adults were asked about their perspectives of stressors of all people in the community, rather peers their age. I note that in the introduction it says this group was chosen because it’s when mental health problems first manifest – however, participants were not asked about their own experiences or that of their peers. It’s unclear to me why a specific age cohort (i.e. young adults/adolescents) was asked to report on perceived sources of stress, coping strategies etc for all people in the community. This approach

potentially biases results, as it may overlook/underestimate the experience of people in the community who do not belong to this age group (e.g. working-age adults, older adults).

Author's reply: The reviewer raises a great point and one we should clarify. We asked about "people in their community" but the community specifically refers to same-aged peers. We now edit this for clarity.

Reviewer 1, Comment 14: "Survey firms were asked to select villages that were reasonably representative of the rural population in the country" – Reasonably representative based on what factors?

Author's reply: We thank the reviewer for pointing out this imprecise language. We now edit to read: "Survey firms were asked to select villages that were representative of the rural population in the country based on economic conditions, and population demographics."

Reviewer 1, Comment 15: I see some information on reflexivity has been added, but more detail is needed. I suggest referring to the reporting guidelines provided by BMJ (SRQR)

Author's reply: We reviewed the reflexivity statement and we do not see much room for additional content regarding reflexivity. We expanded the text to include there was cultural similarity, and that the study authors did not interact with participants to make it explicit to the readers.

"Despite cultural similarity between interviewers and community members, some participants may have been disinclined to share their information since interviewers were unfamiliar to them. Interviewers were matched to interviewees by sex to mitigate bias in the interviews. There were no interactions between the study authors and participants."

Reviewer 1, Comment 16: Qualitative data analysis" needs editing for clarity. "We accommodated new themes by adding new codes into the coding frame" Do you mean you expanded the initial coding frame (from Tanzania) with additional codes (rather than themes) that emerged in the Malawi/Ghana data? Or did you generate themes based primarily on Tanzania data?

Author's reply: We now clarify: "We expanded the initial coding frame by including new codes derived from the Malawi and Ghana data."

Reviewer 1, Comment 17: Analysis began with a process of immersion where each author read several transcripts from the first set of data and noted initial thematic codes together." For clarity, change "first set of data" to Tanzania interviews (or similar). Also were interviews divided up amongst authors (single review) or were interviews dually reviewed/coded? "Initial thematic codes" – do you mean the coding frame?

Author's reply: We now clarify: "Analysis began with a process of immersion where each author read several transcripts from the Tanzania interviews. We discussed the emerging themes together to develop the coding frame. The Tanzania transcripts were then re-analyzed (data coding and finalizing themes) by the first and second authors (BJH, MRG) using the coding frame, with regular discussions with the other authors for their comments and suggestions."

Reviewer 1, Comment 18: "We generated initial codes by coding text that discussed stressors and coping strategies" What about codes for impact?

Author's reply: We appreciate the reviewer catching this omission. We clarify: "We generated initial codes by coding text that discussed stressors, impacts, and coping strategies."

Reviewer 1, Comment 19: "The rest of the analysis was conducted by the first and second authors (BJH, MRG), with regular discussions with the other authors for their comments and suggestions. We generated initial codes by coding text...." This contradicts the above - I thought the coding structure was developed by all the author. And to be clear, does "the rest of the analysis" mean coding all the transcripts and finalizing themes?

Author's reply: We appreciate the reviewer noting this issue. We clarify this further: "The Tanzania transcripts were then re-analyzed (data coding and finalizing themes) by the first and second authors (BJH, MRG) using the coding frame, with regular discussions with the other authors for their comments and suggestions. For remaining Malawi and Ghana transcripts, we coded text that discussed stressors, impacts, and coping strategies."

Reviewer 1, Comment 20: "For each code, we collated relevant text examples." This is redundant – coding text in NVivo means you're collating text (and it should be all relevant text, not examples)

Author's reply: We agree and this sentence is now omitted.

Reviewer 1, Comment 21: "Heading can also simply be "data analysis".

Author's reply: We agree and changed to Data Analysis.

Reviewer 1, Comment 22: Tables 2-5 can be put as web appendices, particularly if short on word count. This is a very large qualitative study and so some semi-quantification in text is helpful (e.g. most frequently reported stressors, stressor X or Y was mentioned by over half/almost all/none of participants). However, it can be misleading to use frequencies, since this isn't a quantitative survey (and therefore your sample isn't powered or selected to be representative, and since you don't have a survey tool explicitly asking about each of these stressors, causes etc, you can't say with certainty that they weren't issues for the participants).

Author's reply: As the reviewer points out, semi-quantification is useful. We do not intend to suggest the data is representative since this is a qualitative study. The issue of omission of content by some participants is not quantifiable and is a concern for all qualitative work. We believe the frequencies are counts of occurrences of themes and should remain in the tables.

Reviewer 1, Comment 23: Analysis may be strengthened by applying an existing framework to your results and highlighting similarities or differences.

Author's reply: We were unable to locate an appropriate existing framework for the analysis and used the data to develop a descriptive understanding of stress in these contexts.

Reviewer 1, Comment 24: There's not enough discussion around the quotes – currently it feels more of a listing than an in-depth analysis, particularly for the identification of stressors.

Author's reply: We want to avoid extrapolating beyond our data. We revised some sections to improve the general flow, but we believe this is an appropriate level of discussion for a descriptive qualitative report.

Reviewer 1, Comment 25: Overall, it needs to be clearer what the main findings of the research are and what are their implications – the current implications do not follow from the results (i.e. see above on cash transfers, implications for tools measuring stress levels). If the above comments are addressed, this should become clearer.

Author's reply: We clarified the purpose of the study which should now align the results and discussion.

Reviewer 1, Comment 26: “The general framework that emerged from this study involved two main sources of stress – all related to poverty” What framework? The results were a descriptive analysis, but I didn't see the development of a framework.

Author's reply: We stated in the results that: “We organize the results in a broad framework encompassing 1) stressors related to poverty and the lack of basic necessities, 2) additional stressors that worsen poverty-related stress, 3) impacts of these stressors on functioning, health, and well-being, and 4) coping strategies used by community members.”

Reviewer 1, Comment 27: “The mixed evidence from cash transfer interventions and the results from our current study suggest the need for new quantitative measures of stress.” – As above, I don't think you're able to say this from your research. There are other reasons why cash transfers might not reduce stress, you didn't specifically investigate the impact of cash transfers and your research was not focused on the validity of tools that quantitative measure levels of stress.

Author's reply: We agree and removed the sentence and replaced it with:

“The current study demonstrated a specific mix of stressors largely focused around poverty.” The application of our work is to focus intervention efforts, improve measurement of stress, and provide greater specificity about the construct from a local perspective. We believe we can have applied implications from our work and not just remain at a theoretical and conceptual level of contribution.

Reviewer 1, Comment 28: “Any new stress scale should differentiate between poverty and non-poverty-related stressors to enable a more nuanced view of the source and type of stressors

experienced...” But this isn’t the purpose of the scales you’ve cited – they are to measure levels of stress, not sources. None of the questions they ask are specific to sources either.

Author’s reply: We agree that we could frame this section differently, and have now done so, to reflect that the scale we sight does not measure types of stressors:

“The current study demonstrated a specific mix of stressors largely focused around poverty. Most stress studies in LMIC rely on the Perceived Stress Scale, which was validated among a largely educated populations in the United States and elsewhere,⁴⁶ and was intended for use among people with at least a junior high education level.²⁷ Outside this population, this scale may not capture important features of stress. Moreover, a new stress scale could be designed to be more specific about the sources of stress, and not only focus on the levels of stress experienced in a community. Differentiation between poverty and non-poverty-related stressors enables a more nuanced view of the source and type of stressors experienced.”

Reviewer 1, Comment 29: Minor edits:

- First line of introduction missing a period.
- “suggest that key stressors involve economic conditions and social relationships.” – rest of sentence is missing
- “stressors on functioning, health, and well-begin” – should be well-being
- Referencing format is not consistent
- Check for consistency in tenses
- Acronym for GBV needs to be defined

Author’s reply: We appreciate the reviewer pointing out these issues; all are now corrected.

VERSION 3 – REVIEW

REVIEWER	Lena Banks Assistant Professor, London School of Hygiene & Tropical Medicine, UK
REVIEW RETURNED	16-Sep-2019
GENERAL COMMENTS	All revisions have been made satisfactorily. I enjoyed reading the paper and think it makes a great contribution to the literature.