Author's response to reviews

Title: Resilience to trauma in the two largest cities of Brazil: a cross-sectional study

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Author's response to reviews: see over
Dear Dr. Angela Nickerson,

Thank you for the opportunity to revise our manuscript Resilience to trauma in the two largest cities of Brazil: a cross-sectional study. We changed our text in order to address the problems mentioned by reviewers. We present below (in italic) the comments of the issues raised in your letter.

Best regards,

Liliane Vilete

Referee 1:

Isaac Galatzer-Levy

1. Definition of Resilience as the absence of any psychopathology is not an accurate definition of resilience. This is akin to saying health is the absence cancer. Resilience is commonly defined as little to no symptomatology or disruption in psychological functioning (see Bonanno’s work). An individual could be quite symptomatic and not meet diagnostic criteria. This is not a petty point given the evidence that so called sub-syndromal PTSD often causes equal impairment to full PTSD.

Answer: We provided a more thorough discussion of the concept of resilience in the introduction and justified the use of our definition in item 1 of section “Measures and Covariates” (Method)

2. When were these people exposed to a potentially traumatic event? This isn’t apparent but if it was some time before the study it is difficult to conclude that individuals are resilient as that could have developed pathology and recovered. Longitudinal studies have shown that recovery is very different from resilience and has different predictors.

Answer: We believed that this problem was minimized as we used the absence of lifetime diagnosis to generate the variable “resilience” (please see item 1 of the section “Measures and Covariates”). We agree that defining resilience is not simple. In the absence of any universal operationalization of this construct, it is necessary to make decisions. We decided to give more weight on problems that cause clinically significant distress or impairment in social, academic, occupational, or other important areas of life. Moreover, the use of our definition considers the temporal criteria avoiding to classify individuals with transitory symptoms (e.g. less than one month for PTSD) as non-resilient.

3. The findings that resilient individuals were lower of NA is not very new or surprising. The idea that PA buffers the effects of NA is also not that new and has been demonstrated more robustly with longitudinal data in the past. Based on these issues with methodology and the impact of the findings, I would say that the current study is quite limited in what it adds to a literature that has
explored these questions quite a bit. 
Answer: The data on PA and NA are not the only findings presented in this paper. We would like to point out that we had no previous data on PA and NA in the Brazilian population, which showed a high incidence of trauma exposure.

Referee 3:

Maria Steenkamp

1. The primary limitations of the study include: (a) a simplistic conceptualization of resilience, and (b) somewhat problematic use of the PANAS. First, as defined by the authors, “resilience is a process where, despite a significant threat to the individual, the quality of adaptation is good”. Resilience is operationalized as a lack of caseness – however, the absence of psychopathology does not necessarily indicate good adaptation.

Answer: We provided a more thorough discussion of the concept of resilience in the introduction and justified the use of our definition in item 1 of section “Measures and Covariates” (Method). We agree that defining resilience is not simple. In the absence of any universal operationalization of this construct, it is necessary to make decisions. We decided to give more weight on problems that cause clinically significant distress or impairment in social, academic, occupational, or other important areas of life. Moreover, the use of our definition considers the temporal criteria avoiding to classify individuals with transitory symptoms (e.g. less than one month for PTSD) as non-resilient.

2. Second, the rationale of the inclusion of the PANAS is underdeveloped and not entirely convincing, particularly the authors’ notion that it is a mechanism in the development of resilience, rather than simply a byproduct of having psychopathology (in which participants with a mental disorder would be expected to endorse more negative affect). The authors also at several points inappropriately infer causality, for example when hypothesizing that “both positive and negative affects play a role in the development of positive adaptation to trauma” (p.3).

Answer: We acknowledge the reviewer for this comment. We rephrased our manuscript considering this aspect.

3. The title may be more accurate if it specified that the study examined childhood trauma, that is: Resilience to childhood trauma in the two largest cities of Brazil: A cross-sectional study.

Answer: This study was not limited to childhood trauma.

4. In the Introduction, the authors state: “although stressful experiences may render individuals more susceptible to subsequent stressors, there is evidence
that stress may enhance and individual's resistance to new hardships”. Citations should be provided to this effect.

**Answer:** We included a citation related to this topic.

5. On page 5, the authors mention an “intensity of trauma variable” – more information should be provided on this variable, for example, who evaluated this intensity and using which criteria?

**Answer:** This was self-rated. We included this information in item 5 of the section “Measures and Covariates”.

6. Overall, the Discussion section could be tightened and reworked for flow, as it often discusses variables not assessed in this study (e.g., parenting behavior, attachment style, genetics of positive and negative affect).

**Answer:** We reworked the discussion and tried to restrict it to issues we assessed.

7. Rates of the different disorders assessed should be provided. For example, what percentage of participants met criteria for PTSD?

**Answer:** The prevalence rates of the different mental disorders were not the aim of this paper. We mentioned these diagnoses only to explain how the variable resilient was built. The information on the prevalence rates have been already published (Ribeiro WS et al. The Impact of Epidemic Violence on the Prevalence of Psychiatric Disorders in São Paulo and Rio de Janeiro, Brazil. PLoS ONE 2013, 8(5): e63545. doi:10.1371/journal.pone.0063545)

Referee 2:

Anu Asnaani

1. This manuscript has a number of issues that require revision. Of note, it was actually quite difficult to assess the scientific merit and soundness of this study because of the number of grammatical structural/format issues with the paper, which greatly detracted from the authors’ main points.

**Answer:** The manuscript was sent again to an English reviewer, this time to a service suggested by the editor (Edanz).

2. Abstract: Authors need to re-check that they maintain consistency in their tense use (e.g. using past tense for most of the Methods description, except the last line which is in present tense). Also, the conclusions seem a bit of a stretch, and not specific enough to what the findings immediately mean (as opposed to far-in-the-future or removed implications). This should be modified to more adequately represent the major implications of the findings.
Answer: Thank you. We corrected it according to the referee’s suggestion.

3. Introduction: The review of the literature on resilience and its relationship to trauma was very scant, and did not represent an adequate review of the literature. The authors might consider taking some of the information from the discussion (which was certainly more thorough but included information that was more fitting in the introduction) and adding it to this section instead. The introduction does not have to be overly long, but it does need to set up readers well for the hypotheses made in the empirical portion of the study, and that was lacking in the current draft. Also, there were several particularly small paragraphs that either did not transition well from previous points or presented information at too superficial a level to be meaningful (e.g. paragraphs 5 and 6) – these should be re-written or expanded on.

Answer: We re-wrote and expanded the introduction as recommended.

4. Results: This is the other section requiring significant editing and additions. The results are not presented in the full level of detail needed – even if tables are presented, authors must mention statistical tests to back up conclusive statements made. From simple details about the percentage of each ethnic group described to F tests with associated p values for all statements made regarding risk/resilient factors for positive/negative adaptation to trauma, this section must be added to significantly. It is not enough to simply confidence intervals and p values in Table 3. Also, I’m confused about why the authors chose to report the chi square statistic in the second table without any follow up analyses, particularly for categories with three or more choices (e.g. ethnicity, age group, etc)

Answer: We apologize, but we did not understand what the referee means with the sentence “From simple details about the percentage of each ethnic group described to F tests with associated p values for all statements made regarding risk/resilient factors for positive/negative adaptation to trauma, this section must be added to significantly”.

We removed the second and third sentences from the first paragraph of Results section as the purpose of this table was only descriptive.
Concerning the last sentence about chi-square test, there is no problem to apply it for cross-sectional studies. Moreover, this statistical test is suitable for variables with more than two categories (Kirkwood BR & Sterne JAC. Medical Statistics. Blackwell Science Ltda: Oxford-UK, 2003 – chapter 17)

5. Discussion: This section would highly benefit from significant reorganization so that readers can follow the important points made by the authors more easily. In addition, authors should consider using more transitional statements at the beginning of paragraphs to form a more logical flow of arguments. In addition, authors should be careful not to present new data here (e.g. page 10, line 5); all data must be presented in the results, and discussion should be restricted to interpretation of empirical findings only, to be consistent with conventions for presenting scientific work.
We acknowledge this comment. We included in the results section all data that we discussed later. We restricted our interpretation only to our empirical findings but we tried to understand them in the context of other authors’ findings.

6. As mentioned previously, there are a substantial number of grammatical/vocabulary issues throughout the manuscript, too many to mention individually here. The authors would benefit from a thorough review to ensure these errors are corrected; they significantly distract readers from the scientific merit of the article. In particular, check for odd word choices (e.g. “lifelong” added incorrectly on line 5 of the introduction, “fuel thriving” on page 3, line 7), correct/consistent tenses, and appropriate negative word matches (e.g. “neither” and “nor” should be “either” and “or” on page 9, line 11).

Answer: We rephrased the text in order to minimize this problem.

7. Quotes should only be used sparingly, and are used too much in this paper. In addition, if quoting a specific line, the page number where this quotation appears in the cited paper must be cited in parentheses immediately following the quotation.

Answer: We rephrased the text in order to avoid this problem.

8. Similarly, unpublished data should only be used sparingly, if at all, because it brings the validity of findings presented into question since unpublished data cannot be evaluated for scientific soundness. Level of interest: An article whose findings are important to those with closely related research interests.

Answer: We rephrased the text in order to avoid this problem.

EDITOR

1. After reading through your manuscript, we feel that the quality of written English needs to be improved before the manuscript can be considered further. We advise you to seek the assistance of a fluent English speaking colleague, or to have a professional editing service correct your language. Please ensure that particular attention is paid to the abstract.

Answer: The manuscript was sent again to an English reviewer, this time to a service suggested by the editor (Edanz).

2. Further discussion of the definition of resilience; recognizing that the absence of psychopathology may not be indicative of resilience (e.g. in the case of sub-syndromal levels of symptoms). It is suggested that the authors provide a more thorough discussion of the concept of resilience in the introduction, and note the limitations of their definition of resilience in the discussion.

Answer: The manuscript was sent again to an English reviewer, this time to a service suggested (Edanz).
Answer: As stated before, we provided a more thorough discussion of the concept of resilience in the introduction and justified the use of our definition in item 1 of section “Measures and Covariates” (Method). We agree that defining resilience is not simple. In the absence of any universal operationalization of this construct, it is necessary to make decisions. We decided to give more weight on problems that cause clinically significant distress or impairment in social, academic, occupational, or other important areas of life. Moreover, the use of our definition considers the temporal criteria avoiding to classify individuals with transitory symptoms (e.g. less than one month for PTSD) as non-resilient.

3. Expanding the introduction to provide a more thorough overview of the relationship between resilience and trauma. Also, more attention should be paid to outlining the theoretical framework underpinning the hypothesized relationship between positive and negative affect and resilience.

Answer: Thank you for allowing us to expand the introduction to make the theoretical framework clearer.

4. Taking care with inferences of causality given the cross-sectional design of this study.

Answer: We rephrased the text in order to avoid this problem.

5. More information should be provided about participants, design and procedure; also, importantly, more information should be provided about the measures used in the current study. For example, how was the PANAS delivered in the current study? To what time period were the negative and positive components yoked? The authors have alluded to a factor analysis of the PANAS - has this been published? If so, then the reference should be provided. If not, the authors may wish to provide the results of this CFA in the current paper. Also, more information should be provided about the trauma variable. For example, how was trauma intensity assessed? How was the "worst trauma" assessed?

Answer: We rewrote the method section to provide these informations. Concerning PANAS, we included a brand new reference about the validation of the instrument in our sample.

6. More information should also be provided in the results. In addition to that suggested by the reviewers, it would be helpful if the authors provide frequency of exposure to specific types of trauma, and rates of various psychiatric disorders in the sample.

Answer: The prevalence rates of the specific types of trauma and different mental disorders were not the aim of this paper. We mentioned these diagnoses only to explain how the variable resilient was build. The information on the
prevalence rates have been already published (Ribeiro WS et al. The Impact of
Epidemic Violence on the Prevalence of Psychiatric Disorders in São Paulo and Rio
de Janeiro, Brazil. PLoS ONE 2013, 8(5): e63545. doi:10.1371/journal.pone.0063545)

7. It would be useful if the authors considered the discussion in terms of
structure and flow. Also, new data should not be presented in the discussion. It
may be useful to consider some other limitations of the data in the discussion -
for example, retrospective reporting bias of trauma events, psychiatric
disorders, childhood experiences, parental mental illness etc. This may be
associated with likelihood of reporting varying levels of positive and negative
affect.

*Answer: We acknowledge this comment. We included a comment to call
attention to these aspects.*

8. Finally, the authors should examine the manuscript for errors of grammar and
expression.

*Answer: As mentioned before, the manuscript was sent again to an English
reviewer, this time to service suggested (Edanz).*