Author's response to reviews

Title: Individual and contextual factors associated with verbal bullying among Brazilian adolescents

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Author's response to reviews: see over
São Paulo, March 9th 2015.

Dear Editor,

Please find attached a point-by-point response to the Editor comments and a revised version of our paper (Manuscript MS: 4044393081475940) entitled “Individual and contextual factors associated with verbal bullying among Brazilian adolescents”.

We appreciate very much the opportunity to present the paper again, taking into account the valuable contributions of the reviewers and Editor.

The authors.

**Editors comments:**

The following issue raised by the reviewer has not been adequately addressed. The authors should include this point as a limitation of the study and to tone down their conclusions considerably.

4. A third major/key concern is as follows. I refer to page 15. One important issue relates to the small contribution of contextual level (school, city) variables. One reason proposed for the lack of association between socioeconomic inequality and bullying is that inequality was not measured at the appropriate level. Assuming that this is true, then the problem lies with measurement - it, it is a measurement concern/problem - because authors do not have data to compare large cities/small towns, urban/rural areas and central/peripheral areas within cities. Therefore the inability to detect a contextual effect could be due to inadequate measurement and NOT due to the fact that these effects do not exist or are unimportant. Therefore, authors’ conclusion that individual factors have greater explanatory power (see last 8 lines, page 15) is way too premature simply because we do not know and cannot rule out measurement concerns/issues. So this is a very serious limitation as it directly affects the conclusions that authors can or cannot draw from their data and findings. (See also page 18, conclusion.

Authors: We understand the reviewer’s concern and we thank her for this. We would like to clarify that in this comment the reviewer is stressing two different things. The first is that we stated that bullying variance at school and city level was of small magnitude, as assessed by the variance partitioning coefficients (VPC), but this does not mean it lacks importance. The variance at different levels has no correlation with the variables measured at different levels, but with the cluster itself. Therefore, the first statement “the small contribution of contextual level” is due to the result obtained by VPC. The second issue is related to the measurement of inequality at city-level; we totally agree with the reviewer that this is a limitation of our study regarding measurement. Thus we have amended the text to tone down our conclusions regarding inequality and bullying.
Results

Line 295

“In the empty model, the VPC showed that 1.8% and 0.3% of the total variance in verbal bullying occurred at school-level and city-level, respectively, and 97.9% at individual-level. These variances were statistically significant, showing clustering of bullying at these levels.”

Line 354

“Despite the fact that we have not found significant association between verbal bullying and income inequality at city-level, this association cannot be ruled out. A limitation of our study is that the indicator of inequity could not be measured at the most appropriate level. Most inequalities in Brazil are more noticeable when comparing large cities and small towns, urban and rural areas and within cities comparing central and peripheral areas but not when comparing state capitals. Nonetheless, we were unable to obtain this data because it was considered that this information could lead to the identification of the schools. It is also possible that the association between inequality and bullying may be more related to other forms of bullying or attributable to individual level factors, such as age and sex, obesity and being victim of domestic violence, rather than contextual variables. Regardless these possibilities, findings from other LMIC have not supported the association between inequality and bullying [15, 35].”

Discussion:

Line 330

“The prevalence of self-reported verbal bullying was 14.2%, and most of the variance in bullying occurred at individual-level. Even though, the proportion of the variance explained at school level was fairly small, we found that students from private schools were more likely to report verbal bullying.”

Line 337

“The relative contribution of school and city-level in verbal bullying variance among this large sample of Brazilian students was of small magnitude but in keeping with other studies ranging from 0.6 to 4.0% within schools, and from 1.7 to 9.1% within cities[12, 14, 15, 30, 57].”

Conclusion

Line 435

“This study provided evidence that verbal bullying variance at school and city-level was small, and most of the variance was accounted for at the individual level. This does not mean school or city-level lacks importance, but may suggest that city boundaries comparing only state capitals do not capture differences that shape the relevant environment for bullying occurrence [56]. Those contextual variables analyzed contributed little to explain the variance in verbal bullying, between schools and cities, among 9th grade school students in Brazil. However, the lack of association between inequality at city-level and verbal bullying should be read with caution, since measurement concerns were described.”
“Finally studies exploring associations between other forms of bullying and other contextual variables, measured at rural/urban or central/peripheral neighborhoods; or comparing state capitals with small towns; including other family and school characteristics, which are more proximal to individuals, may provide a more accurate picture of the possible influence of contextual-level variables on bullying in Brazil.”