Author's response to reviews

Title: Blacks and Whites in the Cuba Have Equal Prevalence of Hypertension: Confirmation from a New Population Survey

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Author's response to reviews: see over
Dear Sir/Madam:

Thank you for your continued consideration of our paper entitled “Blacks and Whites in the Cuba Have Equal Prevalence of Hypertension” for possible publication in BMC Public Health. We have received the second round of reviews and revised the paper accordingly. Our point-by-point responses are described below.

As stated previously, the authors declare no financial conflicts of interest, since no financial support was provided from any source for the preparation of this manuscript. Funding for the publication charges will come courtesy of the Canada Research Chairs program, which is acknowledged, and which exerted no influence on the study design or findings.

Sincerely,

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Referee comments are shown in italics, followed by author responses and a detailed explanation of changes made to the manuscript in response to the comment.

Referee #1:

_I am satisfied with the revised version of this paper._

Thank you for your positive response.

Referee #2:

_The revised version of the manuscript (MS) shows some improvement._

Thank you for your positive response.

_However, there are some issues remaining._

_The aim of the MS is not stated in the introduction._

The last two sentences of the introduction section are as follows:

_We previously examined racial hypertension differentials in Cuba, a country with a persistently implemented policy of social inclusion stemming from the 1959 revolution, and we found consistent evidence of a diminished prevalence gap between blacks and whites compared to the US (10, 11). We report here findings from a new survey in Cuba confirming an absence of substantial racial differentials in blood pressure._

The aim of the paper is modest, and is explained in these lines. That is, we previously reported a modest or null association between race and blood pressure in a population based survey. A new round of the survey was recently conducted, and we attempt to replicate that null result in the new data. The result was partially replicated, as described in the paper. Therefore we do feel that the aim is clearly stated in the current version of the manuscript.

_The explanation for not using prevalence ratios does not make much sense and may be inaccurate as the approximation of POR to incidence density ratios applies to nested case-control design and depends on the sampling methods (density sampling or risk set sampling) and not only on duration (See Szklo & Nieto 3rd Edition Page 29). In addition, the authors allude to mortality when the outcome is hypertension. Please note that the formula 4-6 in Modern Epidemiology 3rd Edition alludes to the relationship of prevalence, incidence and disease duration)._ 

We respectfully dissent from the reviewer’s assertions regarding the approximation of the incidence density ratio (IDR) by the prevalence odds ratio (POR). This is a mathematical relation that was first demonstrated by Kupper, Kleinbaum and Morgenstern in their 1982 textbook
“Epidemiologic Research”. The proof is in section 8.1.2 beginning on page 147, and shows that in a cross-section study (note: not necessarily a nested case-control study, although it also holds in that design) that under steady-state conditions, the POR is equal to the IDR multiplied by the ratio of the average durations of disease in the exposed and unexposed. Under the assumption that duration of disease is not affected by exposure, this ratio becomes one, and the POR can be equated to the IDR. The authors specifically note that this applies to cross-sectional and case-control studies. This equality is reiterated in formula 4-6 in Modern Epidemiology 3rd Edition (2008, p. 69), with the assumption of equal duration. Once again, there is no restriction to case-control studies here; it applies to any steady state population, including cross-sectional studies like the one that we report. The reviewer states that this formula in Modern Epidemiology “alludes to the relationship of prevalence, incidence and disease duration,” but this is not accurate. Formula 4-6 makes no mention of disease duration. This is included in formula 4-5, but cancels out in formula 4-6 with the assumption of equal duration in exposed and unexposed.

Without a clearly stated aim, it is hard to evaluate the methods used.

As noted above, our aim was stated in the last sentence of the introduction section. It was to attempt a replication of our earlier report of a modest or null association between race and blood pressure in a population based survey. The result was partially replicated, as described in the paper. The methods are therefore those of a cross-sectional survey, as reported in the previous paper.

With regards to the racial relationships in the Caribbean please see Jorge Duany's work.

Thank you for this excellent suggestion. We investigated the work of this author, and found that most of his work focused on Puerto Rico and the Dominican Republic, or on Cubans in Puerto Rico or the US. We found only 1 directly relevant citation in our search of his work:


As with most of Duany's work, it focuses on racial identity as expressed though artistic performance, most notably popular music. This review essay paints a vivid picture of continued African cultural orientation in Cuban musical traditions, and the embrace of this ethno-cultural heritage in the post-revolutionary era. While this was interesting reading, we did not find a way to directly tie it to our study. If the reviewer has more specific references to an article or book, we would be very eager to consider this further.

Comments from the Editor:

Please change the title 'Introduction' to 'Background'.
This change has been made.

Please provide a Conclusion heading/section before the competing interests

This change has been made.

Acknowledgements: Please acknowledge anyone who contributed towards the article by making substantial contributions to conception, design, acquisition of data, or analysis and interpretation of data, or who was involved in drafting the manuscript or revising it critically for important intellectual content, but who does not meet the criteria for authorship. Please also include the source(s) of funding for each author, and for the manuscript preparation. Authors must describe the role of the funding body, if any, in design, in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication.

There are no additional acknowledgments to be made, and all work was unfunded except for research costs borne by the Ministry of Public Health of Cuba and salary coverage and publication costs by the Canadian Research Chairs program, as already stated in the section entitled “Competing Interests”. The role of these funding sources is explained.