Author's response to reviews

Title: Health inequities: lower socio-economic conditions and higher incidences of intestinal parasites

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Author's response to reviews: see over
Dear Editor Mona Jazayeri,

Thank you very much for your consideration about my manuscript; ID=2050982702146863, Title=Health inequities: lower socio-economic conditions and higher incidences of intestinal parasites.

The manuscript is thoroughly reviewed by a native English speaker colleague as suggested and revised corresponding the reviewers’ comments. The point-by-point response / corrections to the concerns are below. The revised manuscript and tables uploaded in web-site.

Look forward to hearing from you soon,

With my best wishes

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Response to reviewers:

Referee 1: (Shiba Kumar Kumar Rai)

1. Comment: Abstract: The data needs to be recalculated. The percentages (83.6% and 83.4%) in the abstract (methods section 2nd sentence) appears to be incorrect. In the result section, 39.6% and 13.4% and the total 31.0% parasite positive rates are shown. Better would be to show the numerical data also e.g.out of 97 stool samples how many were positive in SPS and same in case of UPS. As has been written: Twenty-eight of 67 (41.8%) children with anal pruritis and 63 of 227 (27.8%) children without anal pruritis were found to be positive for intestinal parasites.
Answer: The ratios, 83.6% and 83.5% (83.47% before correction) are the ratios between the children from whom we managed to receive stool samples and total number of children. These have no relation with the ratios in ‘Results’ section. The ratios of parasite positivity in ‘Result’ section were corrected as to demonstrate both number and ratio, as suggested.

2. Comment: Methods: Study population section: The percentages (83.6% and 83.4%) in the abstract (methods section 2nd sentence) appears to be incorrect.
Answer: The ratios, 83.6% and 83.5% in page 4 - paragraph 2 in “Methods / Study population”, are the ratios between the children from whom we managed to obtain stool samples and total number of children. They do not reflect the presence of parasites.
3. Comment: Results: Better would be to include a separate table as shown in the attached file (MS)
Answer: Total number and percentages of parasites were given in a new separate table, as Table 2, as suggested.

4. Comment: Discussion: There is room for polishing this section. P values are not needed to show
Answer: The section was reviewed and p values were dismissed.

5. Comment: Conclusion: G lamblia and B hominis should be italic.
Answer: G.lamblia ve B.hominis were written in italics.

6. Comment: References: There is inconsistency in the reference citation e.g. Comma after the name of Journal, some place issue numbers are written but not in others.
Answer: The references were reviewed and suggested corrections were done.

7. Comment: Name of the parasites in Table should be in Italic.
Answer: The parasite names in tables were written in italics.

Referee 2: (Mustafa Ulukanlıgil)
Method:
Comment: In page 4, authors may give brief explanations for TurkishStandart Institute’s criteria about number and hygienic conditions of school toilets. Moreover the authors may prefer use of criteria in association with presence of infection in socio economically different areas.
Answer: The criteria of Turkish Standards Institute were added in Method / Study population, page 4 – paragraph 1.

Results:
Comment: In page 6 the education level of father was analyzed but following paragraph it was repeated.
Answer: The repeated part was corrected.

Comment: In page 7, in last paragraph, table 3 should be changed as table 2 because after the socio economic characteristics was analyzed; the association between these characteristics and prevalence of infection should be performed.
Answer: Table 2 and 3 (after correction: Table 2 ~ Table 4 and Table 3 ~ same) were replaced as suggested.

Discussion:
Comment: In first paragraph the authors indicated “the nutrition, sanitary conditions of the families were insufficient and indoor space of the shanty houses for each household member was limited due to the high number of children” Is there any study confirming this information if not please remove it in introduction.
Answer: Yes, we have two references confirming this information and they were in the manuscript already. The numbers of these references were added in the end of the sentence (references 3,5).
Comment: In page 9 at the end of the first paragraph, “Geohelminths were less frequently reported in western than eastern regions, possibly due to insufficient sewage system and the application of stool wastes as fertilizer…” This possibility might be turned certainly with a reference paper (Ulukanligil M, Seyrek A, Aslan G, Ozbilge H, Atay S, 2001. Environmental pollution with soil transmitted helminthes in Sanliurfa. Mem Inst Oswaldo Cruz; 96:903-911)
Answer: These data were based on reference number 7. In addition, the reference suggested by the reviewer was also added as reference 11, and the word “possibly” was dismissed.

Comment: In page 10 first paragraph, the authors indicated “The higher education level of the mother and increased percentage of a regular job of the mother lead to lower incidence of intestinal parasitic infection in the children. However, in table 2 showed 76 of 214 children (36.9%) (whom their mothers had regular job) were infected with parasites whereas 12/79 (15.2%) children (whom mothers had not regular jobs) were infected than others. So this result does not indicated that “This was not surprising, since the mother was the figure, responsible for the nutrition and education of the children in the traditional family structure. The belief that the mothers who have insufficient education do not work and may spend more time with their children and so that they would protect the children against infections is not true” as authors proposed it.
Answer: In page 10, first paragraph: The discussion sentence about the “mothers’ education level and their employment” was revised.

Referee 3 (Jitra Waikagul)

Major revisions:
Comment: Group the parasites into its transmission methods, water-borne (protozoon) and direct (Enterobius and Hymenolepis). Then rewrite the manuscript based on parasites transmission.
Answer: The suggestion of grouping the parasites detected in the study according to their ways of transmission was not found to be suitable for our study. Most of the water-borne protozoa detected in the study, such as Giardia lamblia, Entamoeba histolytica/dispar, Entamoeba coli, may also be transmitted directly by infected hands (for example food handlers). In addition, there is no consensus on the modes of transmission of B. hominis and D. fragilis (as mentioned in: Leelayoova S. et all. Evidence of waterborne transmission of Blastocystis hominis. Am. J. Trop. Hyg. 70(6), 2004, pp.658-662). Although both E. vermicularis and H. nana, detected in our study, are mainly transmitted through fecal-oral route, it is not possible to claim that they can not be water-borne.
Therefore, in our opinion, it is not appropriate to classify the transmission of detected intestinal parasites as “direct” or “water-borne”. We added an evaluation of transmissions of detected intestinal parasites in “Discussion”, page 8 / third sentence.
Comment: Socio-economic condition is an indirect cause (though very importance), rephasing “the factors increase the incidence of intestinal parasites were uneducated...” and other similar statements.

Answer. Studies on the human parasitic infections in Turkey demonstrated a common relationship between parasitic infections and lower socioeconomic status, but there is currently limited data about this subject in Turkey. We thought that socio-economic conditions are effective directly on prevalence and distribution of intestinal parasites in our country and wanted to emphasize that the management practices, implemented to control the intestinal parasitic infections, should be in accordance with environmental and socio-cultural factors of the region, as suggested by Gamboa et al. (Gamboa et al., Distribution of intestinal parasitoses in relation to environmental and sociocultural parameters in La Plata, Argentina. J Helminthol 2003;77(1):15-20 / reference:16). So the “rephrasing” was not found to be suitable for our study.

Comment: Used unequal sample sizes of the two comparative schools, how the sample sizes were determined.

Answer: The reason for the inequality of the target sample sizes in schools was explained in the last paragraph of page 4. All children in grades 3, 4 and 5 in both schools were enrolled and sampling method was not used in our study. As there was not equal numbers of children in both schools, the numbers of enrolled children were not equal.

Minor revisions:

Comment: Table 1: It would be more appropriate to group parasites according to their transmission. Total column is less necessary than the total infection rate of each school. P value at the bottom of the table is for?

Answer: To classify the parasites according to their transmission ways in Table 1 was not found to be suitable, as explained above. Table 2, added according to the suggestion of Reviewer 1 demonstrates the total number of parasites in both schools. P value in Table 1 was dismissed.

Comment: Table 2 and 3: Consider transmission of parasites and clarify/modify some terms.

Answer: Revision of Table 2 and Table 3 according to their transmission ways, was not found to be suitable in our study, as explained above.

Comment: Special room = each student has his/her own bedroom?, Number of household = member of the household/number of person living in each house?, Fathers social status=father’s incomes?, Mother’s has a regular job=mother employment, employed or unemployed?.

Answer: The statements in Tables were revised according to the suggestions of the reviewer, as below:

- “special room” → “each student has his/her own bedroom”.
- “number of household” → “number of person living in house”
- “mother’s has a regular job” → “mother’s employment, employed/unemployed”
- “father’s social status” was given in lower of Table 4. Social status explanation “questioned in terms of employment, not income” was added to the “Methods/Data collection” paragraph in page 5.