Author’s response to reviews

Title: Prevalence and associated risk factors of human intestinal parasitic infections: a population-based study in the southeast of Kerman province, southeastern Iran

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Author’s response to reviews:

Dear editor,

Thank you very much for reviewing our manuscript and for the opportunity to improve and resubmit the manuscript. We also greatly appreciate the reviewers for their detailed and insightful complimentary comments. We revised the manuscript according to the reviewer’s comments. Revised sections in the manuscript have been highlighted by yellow (reviewer 1) and green (reviewer 2). Please find attached a point-by-point response to the reviewer’s concerns with this cover letter. We hope that you find our responses satisfactory.

Sincerely,

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RESPONSE TO REVIEWERS
of “Prevalence and associated risk factors of human intestinal parasitic infections: a population-based study in the southeast of Kerman province, southeastern Iran” by MJ. Abbaszadeh Afshar et al.
November 27, 2019

Fabiana Lora-Suarez (Reviewer 1)
1. In the summary, it does not clarify the age ranges of the population studied, or where the study was conducted. Please adds the prevalence percentages for each parasite,
   ✖ The location of the study was given in abstract line 4, which has been highlighted with yellow.
   ✖ The prevalence percentage of each parasite is added in the abstract (yellow highlighted).
   ✖ In terms of the age range, given that there is no significant association between intestinal parasitic infections and age groups (age ranges), this determinant is not mentioned in the abstract. The age groups are well explained in the text and tables.

2. In the methodology it does not define how many samples for each site were studied nor the stains that were used to identify.
   ✖ The study location (Rudbar-e Jonub county) is comprised of 4 rural districts. At the first stage, through a proportional-to-size random sampling 30 health centers selected (15, 5, 6 and 4 health centers in Jazmurian, Koohestan, Rudbar and Nehzat abad rural districts, respectively) as the study strata. At the second stage, 10 households covered by each health center were selected using the systematic sampling approach. Out of a total of 1500 individuals approached, 639 individuals (42.6 %) refused to give the sample (Response rate = 57.4 %) which was one of the limitations in this study. Finally, 861 specimens were collected from the four above-mentioned rural districts (430, 144, 172 and 115 specimens respectively). Since we did not aim to investigate the prevalence of intestinal parasites infection in each rural district, the number of specimens collected from each rural district was not mentioned in the text, to avoid confusing readers.
   ✖ In this study we used merthiolate-iodine-formaldehyde (MIF) solution for temporary staining of parasite agents which is useful for field survey.

Yitayih Wondimeneh (Reviewer 2)
1. In your methods, the non-response rate is 42.6%. But it should in the range of 10-20% to be acceptable in the case of natural/health sciences research? Unless it will question the representativeness of your research. Hence, in your limitation part, you need try to convince your reader by including words that reflect its importance despite this imperfection.
   ✖ In the study limitation section by expressing the limitations of the sample collection process we have tried to convince the readers (green highlighted).

2. In your laboratory procedures, you have said that all specimens examined by formalin-ethyl acetate sedimentation. But formalin-ethyl acetate sedimentation method is mostly important for determination of helminthic parasites from formed stool?
   ✖ Although some scientists recommend using both flotation and sedimentation procedures for every stool specimen submitted for examination if one technique is selected for routine use, the
sedimentation procedure is recommended as being the easiest to perform, field-friendly and the least subject to technical errors. The formalin-ethyl acetate sedimentation concentration procedure leads to the recovery of all protozoa, eggs, and larvae present. This method is recommended as being the easiest to perform, allowing recovery of the broadest range of organisms, and being the least subject to technical errors. Formalin-ethyl acetate sedimentation method enhanced the recovery of operculate eggs such as Fasciola spp. and Dicrocoelium dendriticum ova and also Ascaris fertile eggs.


Also, in a published study in the BMC infectious disease in 2019, the authors used the direct wet mount and formol-ether concentration technique for the detection of parasitic agents (Taenia species, Hookworm and T. trichiura).


3. Your subtitle "laboratory procedures" in the method part need to be modified as "Sample collection and laboratory analysis". This subsection needs to include the process of stool sample collection that is described in your "study design and sampling" subsections.

The manuscript text and subheadings mentioned were modified.

4. Your result is not properly displayed. For example, before you compare the prevalence difference between protozoan and helminths parasitic infections, you need indicate that of the total study participants, how many of your study participants had intestinal parasite infections in general? You should also indicate the P-vales in parenthesis (p-vale > 0.05 or < 0.05) in your result.

The prevalence of intestinal parasites in the study is asserted in the 2nd paragraph 1st line.

p-value mentioned in the results (last paragraph).

5. In your discussion, some of the paragraphs need to be merged based on the idea it contains.

In the discussion, the paragraphs with related contain merged.