

Reviewer's response –

Reviewer 1

This manuscript presents a novel approach for creating awareness related to air pollution — an important problem in India. Air pollution experts walk with participants with an air pollution sensor in tow and educate the participants about various facets of indoor and outdoor air quality. Even though this approach was only tested on 24 participants over 3 walks, the methods seems robust and the findings are interesting and should be scalable in cities around the world.

Some comments:

- The use of “Global South” in the title is not justified in my opinion. There is not enough discussion in the paper on the similarities (or lack thereof) within the Global South. What about “Air pollution walk as an impact education tool for air quality sensitization: A pilot from an Indian megacity”. A title which is generalized too much (e.g., “Global South”, “South Asia”, or even no region in title implying universality), needs to then include discussion in the text on those (implied) extrapolations.
- There is no discussion on the language(s) used during the walk and its implications. I think including this discussion with the reflections, challenges faced, best approaches, etc. will be helpful for others trying to emulate the approach used by the authors.
- Use “particulate matter” (PM) instead of particulate or particulates throughout the manuscript.
- Page 2, Line 73: Source for population is missing
- Page 4, Line 135: “improves **indoor** air quality” (since ventilation is also defined for outdoors)
- Page 12, Line 346: “Air apocalypse” is not a scientific term and simpler language may be better suited in my opinion.
- Some formatting issues (See page 11, Line 324; Page 13, Line 351)

Response –

Answer - We really appreciate all the kind words. We have added few sentences at the introduction to elaborately discuss the impact of PM2.5 as per your suggestion. We have also included the reference to the section 2.3 in section 2.0. We have also change the title and modified the typographical errors in the revised manuscript.

Reviewer 2

The manuscript "Air pollution walk as an impact education tool for air quality sensitization in the global south" describes a novel approach to raise awareness on air pollution in Kolkata, a city in India. The approach falls into the citizen science framework and, in this study, involved 24 participants in 3 "Pollution Walks". Overall, the manuscript provides an approach that seems replicable also in other countries or in bigger areas.

The manuscript is well structured, as it presents title, authors, abstract, introduction, methodology, results and discussion and implications. References seem overall appropriate. All figures and tabled are mentioned and described in the text.

Technical corrections:

- Title: referring to "global south" is quite strong and doesn't reflect the content of the manuscript. I agree with the title suggestion by RC1;
- Abstract, line 20: instead of "post-ante" do the authors mean "ex-post"?
- Line 50: "chronic" without capital letter;
- Line 57: "global south" is all lower case, while "Global North" in line 68 has first capital letters. Authors should choose which option is best and be consistent throughout the whole manuscript;
- Line 67: has **been** able ("been" is missing);
- Line 73: Reference missing on the population number;
- Line 74: It is not clear what "adjacent respiratory illness" means;
- Line 92: "air pollution walk" is all lower case, while "Pollution Walk" in lines 81-82 has first capital letters. Authors should choose which option is best and be consistent throughout the whole manuscript;
- Line 94: "Fig S1" is not available. Do authors mean "Fig 1?"
- Line 101: "**surveys were** done"
- Overall there should be consistency with respect to the verbal tenses throughout the whole manuscript, as sometimes present and sometimes past are used (e.g. lines 139-144: "Then the participants **were asked** to visit the adjacent kitchen to monitor the indoor pollution contribution by cooking. Then participants **moves** outside and **it was explained** how ventilation helps to dilute air pollutants. Further, the participants **walk** through major and minor roads and **measure** air pollutants in different settings. The participants **walk** through the same route to the room and a semi-structured interview **was taken.**"
- Line 148-149: Citation needed;
- Line 168: "All" shouldn't have a capital first letter;

- Line 168: “all **participants**”;
- Line 172: “if this **improved**”;
- Line 173-174: “Follow-up interviews were done **a year after the walk, ...**”;
- Table 1: The “%” sign is missing on the first 3 lines of the “Percentage (n=24)” column;
- Line 186: “Participants...” not “The participants...”. This should be modified throughout the whole manuscript;
- Line 187-188: citation needed;
- Lines 193-195: This sentence should be rephrased as it is not clear;
- Line 211: “The pre-walk and post-walk **surveys were** conducted...”;
- Line 211: It is not clear what authors mean with “precipitation”. Please correct;
- Line 215: “or **that** smaller”;
- Line 216: “All most half” is not clear. Please correct;
- Lines 255-257: Sentence is not clear, please correct;
- Line 257: “Moreover, 4%...”;
- Line 307: “in the last year” instead of “in last one year”;
- Line 324: “Those who ca”t” should be “Those who can’t”;
- Line 346: “air apocalypse” is a strong wording that should be reconsidered;
- Line 351: “Autho”s contribution” should be “Author’s contribution”;

Response –

Answer - We really appreciate all the kind words. We have also change the title and modified the typographical errors in the revised manuscript.