|  |  |
| --- | --- |
|  | |
| Journal Name: | [**South Asian Journal of Parasitology**](https://journalsajp.com/index.php/SAJP) |
| Manuscript Number: | **Ms\_SAJP\_127529** |
| Title of the Manuscript: | **COMPARATIVE ANALYSIS OF HELMINTH PREVALENCE IN MARKET AND STREET FAIR SAMPLES: PUBLIC HEALTH IMPLICATIONS** |
| Type of the Article | **Original article** |

|  |  |  |
| --- | --- | --- |
| PART 1: Comments | | |
|  | Reviewer’s comment | Author’s Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **This manuscript investigates an important public health issue: helminth contamination of leafy vegetables sold in different market settings. The study's focus on comparing market and street fair samples provides valuable insights into potential risk factors associated with foodborne parasitic infections. The findings could inform targeted interventions to improve food safety and public health in the region. The small sample size, however, limits the generalizability of the findings.** | We acknowledge that the small sample size is a limitation of the study, as it reduces representativeness and makes it challenging to generalize the findings to larger populations. This limitation arose from logistical factors and the need to ensure the feasibility of the research within the available timeline and resources. However, we believe that the collected data provide a relevant initial insight into the patterns of helminth contamination in leafy vegetables sold in different settings. Future studies with larger and more comprehensive samples are planned to confirm and expand the findings, offering greater robustness to the conclusions and contributing more substantially to public health interventions. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The title is suitable and accurately reflects the study's focus.**  **But you can use : A Comparative Study of Helminth Contamination in Market and Street Fair Vegetables: Public Health Implications** | Great suggestion for the title. We will adopt it and make the modification. |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **The abstract is concise but could benefit from a brief mention of the statistical methods used for comparison between market types. Additionally, stating the number of samples analyzed (10) in the abstract would improve clarity.** | The suggested modifications were accepted, and the original text has been revised accordingly. |
| Is the manuscript scientifically, correct? Please write here. | **The manuscript is scientifically sound in its methodology. However, the sample size of 10 is extremely small and raises significant concerns about statistical power and the generalizability of the findings. The results, while interesting, are likely underpowered and should be interpreted cautiously. More detailed statistical analysis (beyond percentages) is needed to support the claims of "significant variations."** | A statistical analysis was added to the study to support the data and findings of the article. In our analyses, we considered the reduced sample size and emphasized caution in generalizing the article's final results. |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | **The references are sufficient but could be improved by including more recent reviews on foodborne helminth infections in South Asian countries, and specifically by considering articles describing detection methods. A systematic review focusing on helminth prevalence in similar settings would strengthen the background. The following article, for example, could be relevant for discussing the detection method used: https://doi.org/10.3390/w16223276. It would be useful to compare and justify the choice of method employed in the study in relation to other approaches described in the literature, particularly the one mentioned above.** | The study was incorporated into the references and the discussion of the results of the article. |
| Is the language/English quality of the article suitable for scholarly communications? | **The English language quality is acceptable but could be polished for improved clarity and flow in certain sections. Professional editing is recommended** | **We will carefully review the text and consider professional editing to enhance clarity and flow in the suggested sections, ensuring a more polished and cohesive final version. Your input is greatly appreciated!** |
| Optional/General comments | **This section could include comments on several aspects not fully covered elsewhere:**  **Specificity of Vegetable Types: The study mentions "leafy vegetables" generally. More detail is needed. Were specific types (e.g., lettuce, spinach, kale) sampled? Were proportions of each type documented? Knowing this is crucial because parasite prevalence might vary significantly between different vegetable species due to factors like growth habits, irrigation practices, and susceptibility to contamination. Suggesting a more detailed breakdown in the methods section, perhaps even a table showing the number of samples per vegetable type, would improve the analysis.**  **Socioeconomic Context: The socioeconomic status of the market and street fair locations could significantly influence hygiene practices and parasite prevalence. Did the authors collect data on income levels, sanitation infrastructure (access to clean water, waste disposal systems) in the areas where the samples were obtained? If not, this is a significant limitation. Suggesting the inclusion of such information in future studies would strengthen the public health implications of the study. Even a brief description of the observable conditions (e.g., presence of running water, visible waste, etc.) could provide valuable context, although this would be a less rigorous approach.**  **Sampling Strategy: A more detailed explanation of the sampling strategy is needed. How were the 10 samples selected? Was there any randomization involved? Were samples taken from multiple vendors within each market type to increase representativeness? Describing the sampling method in more detail will increase the transparency and validity of the study. Without this detail, it's difficult to assess the reliability of the findings.**  **Microscopic Identification: The methods mention microscopic identification but lack detail on the expertise of the person performing the identification and the quality control measures used to ensure accurate identification of helminth eggs and larvae. This is particularly crucial given the potential for misidentification of similar-looking parasites. Mentioning the experience level of the microscopist and any verification or cross-checking done would improve confidence in the accuracy of the parasite identification.**  **Limitations of Lugol's Solution: While Lugol's solution is commonly used, it's not the most sensitive method for detecting all types of helminth eggs. The discussion section should acknowledge this limitation and mention alternative methods that might be used for more comprehensive detection in future research. This aligns with the suggestion to incorporate the linked article (DOI: 10.3390/w16223276) into the discussion.**  **Public Health Recommendations: The conclusion states the need for targeted interventions but doesn't offer specific recommendations. Based on the findings, what concrete steps (e.g., improved sanitation, educational campaigns, food handling regulations) could be implemented to mitigate the risk of helminth infection? The authors should provide more targeted and actionable recommendations.** | **Specificity of Vegetable Types: We have clarified that the study focused specifically on Lactuca sativa (lettuce) and did not include other types of leafy vegetables. A more detailed breakdown of the sampling, including the exact number of samples per market and type of vegetable, has been added to the methods section. We agree that understanding variations in contamination by vegetable species is crucial, and we will consider including additional vegetable types in future studies to enhance the robustness of the findings.**  **Socioeconomic Context: We acknowledge the importance of socioeconomic factors, such as income levels and sanitation infrastructure, in influencing hygiene practices and parasite prevalence. While this data was not directly collected in the current study, we have noted this as a limitation. In future studies, we plan to gather more information on these factors through surveys or local interviews to better understand the impact of socioeconomic conditions on contamination levels. A brief description of observable conditions, such as access to running water and waste disposal, will also be included in future field observations to provide context.**  **Sampling Strategy: We have revised the methods section to provide more clarity on the sampling strategy. The 20 samples were selected randomly from three supermarkets in different cities and two open markets in distinct locations. Within each site, we randomly selected vendors, ensuring that each vendor contributed one sample. This process was aimed at ensuring representativeness across the different market types and locations. We have added this detail to enhance the transparency and validity of the sampling process.**  **Microscopic Identification: The microscopic analysis was performed by an experienced microscopist, and to ensure the accuracy of the parasite identification, the results were cross-checked using a parasitological atlas. We have included this information in the revised manuscript to improve the confidence in the reliability of the findings.**  **Limitations of Lugol's Solution: We recognize that while Lugol's solution is widely used, it may not be the most sensitive method for detecting all types of helminth eggs. We have added a section in the discussion acknowledging this limitation and suggesting alternative methods, such as more advanced staining techniques or molecular methods (e.g., PCR), for future studies. We will also incorporate the linked article (DOI: 10.3390/w16223276) in the discussion, as it offers valuable insights into alternative detection methods.**  **Public Health Recommendations: We agree with the importance of providing concrete public health recommendations. Based on our findings, we suggest targeted interventions such as improving sanitation, promoting educational campaigns on food handling and hygiene, and implementing stricter food safety regulations for markets and open fairs. These actionable steps will help mitigate the risk of helminth infection and should be emphasized in the conclusion of the revised manuscript.** |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |