Review of: "Knowledge of Risk Associated with Exposure to Per- and Polyfluoroalkyl Substances in Abuja, Nigeria"

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Potential competing interests: No potential competing interests to declare.

Dear Authors,

I have carefully reviewed the study on the knowledge of risk associated with exposure to Per- and Polyfluoroalkyl Substances (PFAS) in Abuja, Nigeria. While the research addresses an important area, there are certain aspects of the scientific and technical presentation that require attention and refinement:

1. The study would benefit from a more comprehensive elucidation of the research methodology, encompassing explicit details on data collection, sampling techniques, and data analysis. Enhancing transparency in these aspects would contribute to the study's reproducibility.

2. The reliance on percentages for data analysis may oversimplify the findings. Incorporating more advanced statistical methods and presenting a more thorough data analysis would bolster the scientific rigor of the study.

3. The technical presentation should delve deeper into explaining the chemical properties of PFAS, mechanisms of exposure, and potential health and environmental impacts. Providing additional technical detail and context would facilitate a broader scientific understanding of PFAS and its associated risks.

4. A more comprehensive contextualization of the findings within the broader scientific literature on PFAS is warranted. A thorough review of existing research, including international perspectives and best practices, would fortify the study's conclusions and recommendations.

5. The study lacks discussion on the validation of the self-designed questionnaire used for data collection. Addressing the validation of the questionnaire is crucial for ensuring the reliability and validity of the data obtained, thereby enhancing the overall scientific quality of the study.

6. A more exhaustive discussion of the study's limitations, including potential biases, confounding factors, and constraints, is essential. Acknowledging and addressing these limitations would provide a more balanced interpretation of the findings.

Additional considerations for improvement include:

- Sample size and representativeness.
- The need for more sophisticated statistical analyses to derive in-depth and robust insights from the data.
- Ethical considerations, particularly the clarification of the absence of applicable ethical approval.

- A comprehensive literature review to contextualize the findings within the broader body of knowledge on PFAS and associated risks.
- Specific and actionable recommendations and implications for addressing identified knowledge gaps and risks associated with PFAS exposure in Abuja.

Furthermore, I would like to highlight inaccuracies regarding PFAS composition, the absence of details on specific PFAS compounds analyzed, and the need for local data on PFAS levels and exposure risks in Abuja.

In conclusion, addressing these concerns and refining the study's scientific and technical aspects would enhance its credibility, scientific robustness, and potential impact on addressing knowledge gaps and risks associated with PFAS exposure in Abuja, Nigeria. I encourage the authors to revise the work and resubmit it for re-evaluation.

Thank you for your attention to these matters.

Best regards,

Austine Ofondu Iroegbu.