

**Review Form 3**

Journal Name:	<b>Journal of Pharmaceutical Research International</b>
Manuscript Number:	<b>Ms_JPRI_123688</b>
Title of the Manuscript:	<b>PHYTOCHEMICAL SCREENING AND SAFETY OF A POLYHERBAL TEA BASED ON LIPPIA MULTIFLORA, ZINGIBER OFFICINALE AND MENTHA PIPERITA</b>
Type of the Article	The article you provided appears to be a <b>research article</b> . Specifically, it falls under the category of <b>experimental research</b> in the fields of phytochemistry, toxicology, and food sciences.

## Review Form 3

### PART 1: Review Comments

Compulsory REVISION 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)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript is significant for the scientific community as it explores the potential of polyherbal tea formulations with <i>Lippia multiflora</i>, <i>Zingiber officinale</i>, and <i>Mentha piperita</i>, offering valuable insights into their phytochemical composition, toxicity profiles, and sensory acceptability. It bridges the gap between traditional herbal knowledge and modern scientific validation, making it relevant for both natural product research and food industry applications. I appreciate the comprehensive approach, combining toxicological studies with sensory evaluation, which strengthens the manuscript's relevance for both safety and consumer preference assessments.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title is generally clear and suitable, as it directly conveys the focus on the phytochemical screening and safety assessment of a polyherbal tea made from <i>Lippia multiflora</i>, <i>Zingiber officinale</i>, and <i>Mentha piperita</i>. However, it could be slightly refined for clarity and broader appeal. An alternative title could be:</p> <p><b>"Phytochemical Composition, Toxicity Evaluation, and Sensory Acceptability of a Polyherbal Tea Formulation with <i>Lippia multiflora</i>, <i>Zingiber officinale</i>, and <i>Mentha piperita</i>"</b></p>	
<p>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.</p>	<p><b>Suggested Revision:</b>  <b>Aims:</b> <i>Lippia multiflora</i>, <i>Zingiber officinale</i>, and <i>Mentha piperita</i> are aromatic plants widely recognized for their medicinal properties. This study aims to analyze the phytochemical composition and assess the safety of a polyherbal tea made from these plants to ensure its suitability for human consumption.  <b>Methodology:</b> The powder of each plant was prepared and combined in five different proportions to formulate polyherbal teas. A hedonic sensory evaluation was conducted by a panel of tasters to assess consumer preference. Phytochemical screening was performed using coloration and precipitation tests, while safety assessments were carried out through acute and subacute toxicity tests on Wistar rats.  <b>Results:</b> Formulation 4, comprising 55% <i>L. multiflora</i>, 30% <i>Z. officinale</i>, and 15% <i>M. piperita</i>, received the highest appreciation score (8.01). Toxicity testing revealed no deaths or signs of intoxication, and subacute toxicity assessments showed no significant alterations in biochemical parameters. An increase in white blood cell count was observed, but other hematological parameters remained stable. Phytochemical analysis indicated the presence of alkaloids, polyphenols, flavonoids, saponins, sterols, polyterpenes, leucoanthocyanins, and mucilages, contributing to its appeal.  <b>Conclusion:</b> Formulation 4, the most favored tea blend, was rich in bioactive compounds and exhibited no toxicity in Wistar rats, making it a promising candidate for safe human consumption.  <b>Key Suggestions:</b></p> <ul style="list-style-type: none"> <li>• Consider adding more specifics about sample size and experimental conditions for the toxicity study.</li> <li>• Clarify the clinical relevance of the increase in white blood cells.</li> <li>• Highlight the health benefits associated with the phytochemicals detected in the tea formulation.</li> </ul>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript appears scientifically robust and technically sound as it follows a systematic approach to investigating both the phytochemical composition and safety of a polyherbal tea formulation. The study applies well-established methodologies for phytochemical screening and toxicity testing, ensuring the accuracy of the results. The use of a hedonic test to evaluate consumer preference adds a practical dimension to the study, bridging scientific findings with consumer behavior. Additionally, the clear presentation of safety data, including acute and subacute toxicity assessments, provides confidence in the tea's safety for consumption. Overall, the research adheres to scientific rigor and provides valuable insights into the health benefits and safety of the polyherbal tea.</p>	

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<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p><b>Yes, Sufficient.</b></p>	
<p><u>Minor</u> REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language quality of the article is mostly clear, but there are some areas that need improvement for better scholarly communication. Certain sentences could be restructured for clarity and fluency, and there are a few minor grammatical issues, such as subject-verb agreement and awkward phrasing. Enhancing the readability and flow of the abstract, results, and conclusion would make the manuscript more polished. Overall, with a few language edits and refinements, the article will meet the standards for scholarly communication.</p>	
<p><u>Optional/General</u> comments</p>	<p>In general, the manuscript presents an interesting and relevant study on the phytochemical composition and safety evaluation of a polyherbal tea, which could offer significant health benefits. The research is well-structured and the methodology is clear, particularly in the formulation of the teas and safety assessments. However, the discussion could be expanded to further explain the implications of the increase in white blood cell count and its potential biological relevance. Additionally, minor language revisions and clearer explanation of results would enhance the overall impact and readability of the manuscript.</p> <p>There appear to be no significant ethical issues in the manuscript based on the provided summary. The study seems to follow standard procedures for conducting phytochemical screening and toxicity testing on animal models (Wistar rats). However, it is important to ensure that the ethical guidelines for animal experimentation were strictly followed. If not already mentioned, the manuscript should clearly state that the animal studies were approved by an ethical review board and were conducted in accordance with internationally recognized ethical standards for animal care and use.</p>	

### 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)
<p><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes. Kindly please write down the ethical issues here in details)</i></p>	

### Reviewer Details:

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