

Review Form 3

Journal Name:	Journal of Advances in Medicine and Medical Research
Manuscript Number:	Ms_JAMMR_130356
Title of the Manuscript:	Efficacy of Tooth Bleaching with 35% and 6% Hydrogen Peroxide in Primary Dentition: Study Protocol for a Randomized Controlled Clinical Trial
Type of the Article	Study Protocol

PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
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 addresses a significant gap in pediatric dentistry by exploring the efficacy and safety of high (35%) and low (6%) hydrogen peroxide concentrations for bleaching primary teeth. Its findings have the potential to establish new, evidence-based guidelines for dental bleaching in young patients, prioritizing both effectiveness and safety. The study also contributes to the broader conversation about minimally invasive, patient-friendly aesthetic treatments, offering clinical value to practitioners worldwide. It is especially timely given the growing demand for safer alternatives in aesthetic dentistry, highlighting the manuscript's relevance to advancing pediatric dental care standards.	Thank you for your recognition of the study's significance. By addressing the efficacy and safety of high (35%) and low (6%) hydrogen peroxide concentrations for bleaching primary teeth, this manuscript aims to fill an important gap in pediatric dentistry. Its potential to establish evidence-based guidelines for minimally invasive and patient-friendly aesthetic treatments aligns with the growing demand for safer alternatives in dental care worldwide.
Is the title of the article suitable? (If not please suggest an alternative title)	Yes, the title is suitable as it is concise and clearly conveys the scope and focus of the study.	We are pleased to hear that the title is considered suitable. Its conciseness and clarity were intentional to accurately reflect the scope and focus of the study.
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 generally comprehensive but could benefit from emphasizing the long-term clinical implications of the findings, particularly regarding the stability of color change and recurrence of tooth sensitivity. Adding a brief statement about sample size and evaluation intervals will further enhance clarity.	Since this is a study protocol and the clinical study has not yet started, it is not possible to include clinical findings. However, regarding the sample, we will include the following information in the abstract: "A sample of 19 primary anterior teeth per group, totaling 38 teeth."
Is the manuscript scientifically, correct? Please write here.	Yes, the manuscript is scientifically correct. The methodology, including the randomization process, validated assessment tools, and adherence to ethical guidelines, is robust. However, the discussion section would benefit from deeper analysis, including mechanistic explanations and comparisons with existing literature	We appreciate your suggestion to enhance the discussion section with deeper analysis, including mechanistic explanations and comparisons with existing literature. We will revise the discussion accordingly in the updated manuscript.
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are sufficient and cover recent studies. However, including a systematic review on low-concentration hydrogen peroxide in pediatric dentistry may provide additional context.	Thank you for the feedback. While the references are sufficient, we will include a systematic review on low-concentration hydrogen peroxide to provide additional context.

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Is the language/English quality of the article suitable for scholarly communications?	The language is clear and precise but could be simplified in sections of the introduction to improve accessibility for non-specialist readers. Avoid redundancies, such as repeated historical context about dental bleaching	We acknowledge your suggestion to simplify parts of the introduction to improve accessibility for non-specialist readers. We will revise the text to avoid redundancies, such as repeated historical context about dental bleaching.
Optional/General comments	<p>This manuscript has the potential to become a key reference for pediatric dentistry. Future studies should consider broader age ranges, long-term follow-ups, and the inclusion of additional qualitative data (e.g., parental feedback) to build on these findings</p> <p>The manuscript is scientifically sound and has significant clinical implications. Minor revisions in the abstract, discussion, and language will enhance its clarity and impact.</p> <p>Areas for Improvement</p> <ol style="list-style-type: none"><li>Study Design and Population<ul style="list-style-type: none"><li>Age Range and Sample Size: The age range of 3–6 years may not fully capture the diversity of primary tooth discoloration etiologies. A broader age range (e.g., 3–10 years) or inclusion of more participants could provide more generalizable findings.</li><li>Tooth Selection: While the use of upper canines as a reference for color assessment is justified, including multiple tooth types (e.g., incisors) could strengthen the study's applicability.</li></ul></li><li>Discussion and Literature Integration<ul style="list-style-type: none"><li>Limited Contextualization: The discussion section could better contextualize findings by referencing similar studies in pediatric populations, particularly those involving low-concentration bleaching agents.</li><li>Mechanistic Insights: The article lacks detailed discussion on the mechanisms by which low-concentration hydrogen peroxide achieves similar efficacy to higher concentrations, which would provide a deeper understanding of the process.</li></ul></li><li>Focus on Sensitivity Assessment<ul style="list-style-type: none"><li>The reliance on the Wong-Baker FACES® Pain Scale, while child-friendly, may not fully capture nuanced differences in sensitivity. Combining this with physiological measures (e.g., pulp testing) could enhance the robustness of sensitivity data.</li></ul></li><li>Long-Term Outcomes<ul style="list-style-type: none"><li>The study lacks information on follow-up beyond four weeks. Longer-term evaluations of color stability and sensitivity recurrence would provide a more comprehensive understanding of treatment outcomes.</li></ul></li><li>Practical Considerations<ul style="list-style-type: none"><li>Cost Analysis: The discussion could include an analysis of cost differences between the two bleaching protocols, which is vital for decision-making in clinical settings.</li><li>Parental and Child Perspectives: Including qualitative data (e.g., parental satisfaction, child comfort) would add valuable insights to the quantitative findings.</li></ul></li><li>Language and Structure<ul style="list-style-type: none"><li>Technical Language: While the article is scientifically rigorous, some sections, particularly the introduction, use overly technical language that may be difficult for non-specialist readers to follow.</li><li>Redundancy: Certain points, such as the historical context of dental bleaching, are repeated unnecessarily, which detracts from the article's conciseness.</li></ul><p>Recommendations for Improvement</p><ol style="list-style-type: none"><li>Expand Study Scope: Broaden the study population to include a wider age range and more diverse tooth types, enhancing the generalizability of findings.</li><li>Deepen Analysis: Incorporate additional sensitivity assessment methods and mechanistic explanations for bleaching effectiveness.</li><li>Extend Follow-Up: Conduct long-term follow-ups to evaluate color stability, patient safety, and sensitivity recurrence.</li><li>Add Practical Insights: Include cost-benefit analyses and qualitative data to provide a holistic view of treatment outcomes.</li><li>Refine Writing Style: Simplify technical language and eliminate redundancies to improve readability and engagement.</li></ol></li></ol>	<p>We sincerely appreciate your detailed feedback and constructive suggestions. Below, we address each of the areas highlighted:</p> <p>1. Study Design and Population</p> <ul style="list-style-type: none"><li>Age Range and Sample Size: Thank you for the suggestion. However, as the literature on this topic is scarce, we plan to initiate the clinical study with this protocol focusing on primary teeth within the 3–6 years age range. Once we obtain initial results, we aim to design a subsequent study with a broader age range and larger sample size.</li><li>Tooth Selection: While upper canines were selected as a reference for color assessment, we recognize your point. Based on the literature, we opted for upper canines because primary central incisors are often affected by discoloration due to trauma, and the canine serves as a stable reference for color evaluation.</li></ul> <p>2. Discussion and Literature Integration</p> <ul style="list-style-type: none"><li>Limited Contextualization: We appreciate this suggestion and will enhance the discussion by integrating references to similar studies in pediatric populations, particularly those involving low-concentration bleaching agents.</li><li>Mechanistic Insights: We acknowledge the need for a deeper discussion on the mechanisms of low-concentration hydrogen peroxide and will incorporate this analysis in the revised manuscript.</li></ul> <p>3.Focus on Sensitivity Assessment</p> <ul style="list-style-type: none"><li>Thank you for your input regarding the Wong-Baker FACES® Pain Scale. While we agree that combining it with physiological measures could provide additional insights, for this protocol, we will rely exclusively on the Wong-Baker FACES® Pain Scale. This tool was specifically developed with children to help them communicate pain effectively and has been widely used for ages 3 and older, facilitating accurate pain assessment and management.</li></ul> <p>4. Long-Term Outcomes</p> <ul style="list-style-type: none"><li>As this is a clinical study protocol, follow-up evaluations are currently limited to four weeks. However, once the study begins, we will assess whether adjustments are necessary. If so, these will be described in a pilot study and subsequent publications.</li></ul> <p>5. Practical Considerations</p> <ul style="list-style-type: none"><li>Cost Analysis: Thank you for this suggestion. We will include relevant cost analysis in the discussion to highlight the clinical decision-making implications of the two bleaching protocols.</li><li>Parental and Child Perspectives: We appreciate the importance of qualitative data and will include parental satisfaction and child comfort assessments in future iterations of this research when applicable.</li></ul> <p>6. Language and Structure</p> <ul style="list-style-type: none"><li>Technical Language: Thank you for pointing this out. We will revise the introduction and other sections to simplify technical language, ensuring accessibility for non-specialist readers.</li><li>Redundancy: We will eliminate redundant points, particularly those related to the historical context of dental bleaching, to improve</li></ul>

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		<p>the manuscript's conciseness and flow.</p> <p>Recommendations for Improvement</p> <p>We value your recommendations for expanding the scope, deepening analysis, extending follow-ups, adding practical insights, and refining the writing style. These suggestions will be incorporated as follows:</p> <ol style="list-style-type: none"><li>1. Expand Study Scope: Future studies will broaden the population to include a wider age range and additional tooth types.</li><li>2. Deepen Analysis: We will explore incorporating alternative sensitivity assessment methods and mechanisms in subsequent research.</li><li>3. Extend Follow-Up: Long-term outcomes, including color stability, patient safety, and sensitivity recurrence, will be evaluated in future studies.</li><li>4. Add Practical Insights: Cost-benefit analyses and qualitative data will be included in future studies</li><li>5. Refine Writing Style: The manuscript will be adjusted to simplify technical language and remove redundancies for improved readability.</li></ol> <p>We are grateful for your insightful feedback and will make the necessary revisions to strengthen the manuscript. Thank you for your valuable contributions to this work.</p>
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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)	