

REVIEWER'S REPORT

Manuscript No.: IJAR-59086

Title: From Tell-Show-Do To Behaviour Bots: Gauging the Clinical Adoption and Hurdles of Artificial Intelligence in Pediatric Dentistry Across Kerala.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision ...yes.....

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			Y	
Techn. Quality			Y	
Clarity			Y	
Significance			y	

Reviewer's ID: JPR-Dr.Shaweta Sachdeva

Detailed Reviewer's Report

1. The manuscript addresses a relevant and emerging topic; however, the novelty and specific research gap should be articulated more clearly in the Introduction. The authors should explain how this study differs from previous surveys of AI awareness among pediatric dentists in India.
2. The sample size of 40 participants is relatively small. The authors should provide a justification or sample-size calculation and explain whether the sample was intended to represent pediatric dentists across Kerala.
3. The participant recruitment procedure requires greater detail. Please specify the sampling technique, recruitment sources, eligibility criteria, study duration, and response rate.
4. The questionnaire is described as structured and divided into five sections, but information regarding its development, validation, pilot testing, reliability, and source of individual items is insufficient. These details should be added.
5. Since the study involves human participants and an online questionnaire, the manuscript should clearly report Institutional Ethics Committee/IRB approval, approval number/date, informed consent procedure, and confidentiality measures.
6. There appears to be a numerical inconsistency that needs clarification. The Methods section states that 40 professionals participated, whereas several percentages in the Results—for example, 51.7%, 27.6%, and 20.7%—do not correspond directly to a denominator of 40. The authors should verify the denominator and ensure that participant numbers and percentages are consistent throughout the manuscript.
7. Similarly, the statement that 31 participants (88.6%) used VR/AR corresponds to a denominator different from 40. The authors should explain the missing responses or clarify whether the effective sample size varied for different questions.
8. The statistical analysis is limited to descriptive statistics. Given the study objectives, the authors could consider appropriate inferential analyses to examine associations between AI familiarity/use and variables such as age and professional background, provided the sample size permits.
9. The manuscript should distinguish more carefully between AI technologies and general digital technologies. VR/AR, gamification, mobile applications, chatbots, NLP, and AI-based anxiety

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detection do not necessarily represent the same technological category. A clear operational definition of “AI” and “digital technology” would improve methodological clarity.

10. The Results state that VR/AR distraction tools were the most commonly used technology, but the manuscript should provide more information regarding how frequently, for which procedures, and in what clinical settings these technologies were used.
11. The interpretation of perceived benefits should be presented cautiously. Responses such as “reduction of fear and anxiety” and “improvement in cooperation” represent participants' perceptions rather than objectively measured clinical outcomes. The manuscript acknowledges this issue later, but the distinction should be maintained consistently.
12. The Discussion sometimes moves from clinician perception to statements suggesting potential clinical effectiveness. Since this was a cross-sectional survey, the authors should avoid implying causality or demonstrated effectiveness of AI-based behaviour-guidance technologies.
13. The finding that 71.8% selected “Maybe” regarding use in emergency or uncooperative patients is interesting, but the authors should discuss possible reasons for this uncertainty and avoid interpreting it beyond the collected data.
14. The Discussion would benefit from a more explicit comparison between the present findings and previous Indian and international studies, particularly with respect to AI literacy, clinical adoption, cost, training, and ethical concerns.
15. The manuscript identifies privacy and ethical concerns but does not sufficiently discuss data governance, informed consent for children's data, storage of photographs/audio/video, algorithmic bias, and potential risks associated with AI-generated recommendations. These issues are particularly important in pediatric populations.
16. The authors should clarify whether the reported technologies were actually AI-enabled or simply digital distraction/communication tools. This distinction is particularly important because the title emphasizes “Behaviour Bots” and AI.
17. The questionnaire's response options and the possibility of multiple responses for technology-use and barrier questions should be explicitly stated in the Methods and table legends.
18. The Results section would be stronger if the authors reported absolute frequencies (n) alongside percentages for all major findings rather than percentages alone.
19. The manuscript would benefit from a table presenting the complete demographic and professional characteristics of participants, including professional designation, years of experience, practice setting, and postgraduate status, if these variables were collected.
20. The limitations are appropriately acknowledged, but additional limitations should include possible selection bias, self-reporting bias, non-response bias, questionnaire validity, and the cross-sectional design.
21. The conclusion should be slightly more conservative. Statements that affordable and validated technologies “may improve adoption” should be clearly framed as implications rather than conclusions demonstrated by the present study.
22. The manuscript contains several grammatical, spacing, and typographical issues, such as “Artificial intelligencein,” “chatbotsandNatural,” missing spaces after citation numbers, and inconsistent use of “behaviour/behavior.” A thorough language and copy-editing review is recommended.
23. The title contains the phrase “Behaviour Bots,” but the manuscript does not clearly demonstrate the actual use or evaluation of behaviour bots. The authors should either define this term explicitly and demonstrate its relevance to the study or consider revising the title to more accurately reflect the technologies investigated.
24. The reference list contains potential duplication/redundancy, particularly references 4/16, 5/17, and 6/18, which appear to repeat the same studies. The reference numbering and in-text citations should be carefully checked.

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25. The authors should verify that all references are accurately cited, consistently formatted, and appropriately matched to the claims made in the manuscript.

Overall recommendation: The manuscript addresses a timely topic and has potential value, but substantial clarification of the sample-size/percentage inconsistencies, questionnaire methodology, ethical approval, statistical analysis, AI-versus-digital technology definitions, and interpretation of findings is needed before the study can be adequately evaluated.