

Subject: [BDS] Editor Decision

Dear Marcela Iunes Silveira, Lucas Macedo Batitucci Ambrósio, Carina Alexandra Salas-Gonzalez, Aline de Souza Mendes, Aline de Barros Nobrega Dias Pacheco, Pedro Ferreira Fogaça Neto, Milene Lorrane da Silva, Ana Luiza Lopes Braga, Mayra Laino Albiero, Bruna dos Reis Vieira, Eduardo Gomes de Jesus, Beatriz de Moura Souza, Emanuel da Silva Rovai:

Your submission Influence of posterior gingival exposure on smiling esthetic perception among periodontists, orthodontists, general practitioners, dental students and laypeople: A cross-sectional study. to Brazilian Dental Science, has been revised and according to reviewers' comments, there are questions to be addressed and/or points to be clarified/corrected.

Please answer the reviewers considerations point-by-point in a separate document and also please make all the corrections in the text highlighted in yellow.

Deadline: 30 days

Thank you for considering Brazilian Dental Science for publishing your research. We are looking forward the revised version of you manuscript.

Sincerely,

Reviewer A:

Your manuscript addresses a relevant and timely topic by focusing on **posterior gingival exposure** and its influence on smile attractiveness, including both laypeople and different profiles of dental professionals as raters. The study has a solid methodological basis: the sample size was calculated a priori, the groups were balanced, the photograph was carefully standardized and manipulated, and the combined use of a VAS and a dichotomous classification enriches the analysis.

The results clearly show a progressive decrease in attractiveness as posterior gingival exposure increases, with **6 mm being perceived as esthetically unfavorable** by most participants. At 4 mm, there is a reduction in attractiveness compared with 0–2 mm, but acceptance remains relatively high, particularly among laypeople and students, suggesting an intermediate zone rather than a strict threshold of rejection.

Some aspects, however, need to be adjusted so that the manuscript more accurately reflects what the data show:

1. **Conclusions versus Results**

The conclusion states that there are no differences in perception among laypeople, dental surgeons, students and specialists. However, the analysis indicates a significant difference at 6 mm between some groups, especially between general dental practitioners and laypeople. It is advisable to reformulate the conclusion to indicate that all groups follow a **similar pattern** of decreasing attractiveness with increasing posterior gingival exposure, but that, at 6 mm, there are specific differences between groups, even if of small clinical magnitude.

2. **Description of the Statistical Analysis**

The statistical section mentions only normality tests, chi-square and one-way ANOVA, whereas the tables clearly indicate intra- and intergroup comparisons marked by lower- and uppercase letters. It is important to explicitly state which post hoc tests were applied (e.g., Tukey) and to clearly describe the logic of the comparisons (intragroup among 0, 2, 4 and 6 mm; intergroup at 6 mm). This transparency reinforces the analytical rigor of the study.

3. **Interpretation of 4 mm of Gingival Exposure**

In the abstract and conclusion, 4 mm and 6 mm are both presented as “negative” for smile esthetics. The data, however, suggest that 4 mm represents an intermediate condition, particularly for laypeople and students, whereas 6 mm is clearly unfavorable. Adjusting the wording to reflect this nuance will improve the clinical message, allowing readers to understand that there is a zone of tolerance up to a certain point and a level beyond which esthetics is more markedly compromised.

4. **Dichotomization of the VAS into “Satisfactory” / “Unsatisfactory”**

The adoption of the ≤ 50 / ≥ 51 cut-off, even if based on previous literature, deserves a more detailed explanation, clearly citing the reference and acknowledging that transforming a continuous scale into a dichotomous variable implies some degree of arbitrariness. It would also be appropriate to mention this explicitly when discussing the study's limitations.

5. **Additional Limitations**

It would strengthen the manuscript to include, in the limitations section:

- The fact that the study is based on the image of **a single patient**, which reduces generalizability to different facial types, ages and smile patterns.
- The absence of an assessment of the **reliability of VAS readings** by the examiner, given that small variations in millimeter readings may influence the scores.

Beyond these central points, some formal adjustments can further improve the manuscript:

- **Terminology standardization:** use a single, consistent designation for each group (e.g., “general dental practitioners (GDPs)” and “laypeople”) and adopt either “esthetic/esthetics” or “aesthetic/aesthetics” throughout the entire text, including the title, abstract and main body.
- **Sample characterization table:** clarify the reporting of sex/gender distribution (for example, by adding a specific line for female participants or adjusting the table heading accordingly).
- **English language and references:** a professional language revision is recommended to improve fluency, agreement and avoid colloquial expressions, as well as a careful check of the references to align them with the journal's style and correct possible errors in authors' names, titles and bibliographic details.
- **Ethics information:** replace generic placeholders with the final institutional name and approval number of the Ethics Committee.

In summary, the study has clear merit and contributes to clarifying how different levels of posterior gingival exposure affect smile perception among laypeople and dental professionals. With the suggested adjustments – particularly regarding

coherence between conclusions and results, clarification of the statistical methods, treatment of 4 mm as an intermediate zone, and a more explicit discussion of the limitations – the manuscript is likely to gain robustness, clarity and scientific impact, thereby increasing its chance of acceptance.

Recommendation: Resubmit for Review

Reviewer C:

Recommendation: Revisions Required

Questionnaire

Does the manuscript contain new and significant information to justify publication?*

Yes

Does the Abstract (Summary) clearly and accurately describe the content of the article?

Yes

Is the problem significant and concisely stated?

Yes

Are the methods or research design described comprehensively? Is the statistical analysis adequate?

Yes

Are the interpretations and conclusions justified by the results?

No

Is adequate reference made to other work in the field?

Yes

Is the language acceptable?

Yes

Manuscript Structure

Length of article is:*

Adequate

Number of tables is:

Adequate

Number of figures is:

Adequate

Please state any conflict(s) of interest that you have in relation to the review of this paper (state “none” if this is not applicable).

No

Rating

Interest*

Good

Quality

Good

Originality

Good

Overall

Good

Recommendation

Major Revision

Would you be willing to review a revision of this manuscript?

Yes

Comments

Comments to the Author

Reviewer Comments

For author and editor

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For editor only

The manuscript evaluates the impact of posterior gingival exposure on smile attractiveness, comparing five groups: periodontists, orthodontists, general dental practitioners, dental students and laypeople.

The cross-sectional design is appropriate, the sample size was calculated a priori and was evenly distributed among the groups, and the use of a standardized photograph digitally manipulated to create different levels of gingival exposure (0, 2, 4 and 6 mm) provides solid methodological consistency. The combined visual analogue scale (VAS) and a dichotomous classification (satisfactory/unsatisfactory) was used for interpretation of the findings.

However, the manuscript presents several issues that should be addressed before it can be considered for acceptance. The main concern is an inconsistency between the results and the conclusion: while the text concludes that there are no differences between laypeople and professionals, the data show a statistically significant difference between general dental practitioners and laypeople at 6 mm of posterior gingival exposure. The description of the statistical analysis is also insufficient in light of the intra- and intergroup comparisons presented in the tables, with no clear indication of which post hoc tests were used. In addition, the interpretation of 4 mm of exposure is placed too close to that of 6 mm, although the data suggest that 4 mm behaves as an intermediate acceptance zone, especially among laypeople and students. The dichotomization of the VAS into “satisfactory/unsatisfactory” is only briefly justified and would benefit from a more explicit rationale, as well as being acknowledged as a methodological decision involving some degree of arbitrariness. Some important limitations – such as the use of a single smile model and the absence of an assessment of the reliability of VAS reading – are not yet fully discussed. Finally, although the English is understandable, the manuscript would clearly benefit from professional language editing, and there are minor issues in tables, terminology and references.

In summary, this study has publication potential in BDS, as it provides useful evidence on the impact of posterior gingival exposure on esthetic perception. However, I recommend that the authors be asked to undertake a major revision, with particular attention to aligning the conclusions with the data, clarifying the statistical methods, refining the treatment of limitations and improving the overall language and presentation.