

Methodological Considerations for TMD Research: A Call for More Robust Assessment and Analysis [Letter]

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Dear editor

We are pleased to express my keen interest in the comprehensive and insightful review article entitled “The Association Between Specific Oral Behaviors and the Number of Temporomandibular Disorder Symptoms in the General Population: A Cross-Sectional Study”.¹ While the authors provided valuable data from a considerable sample, we would like to highlight several specific issues that warrant attention:

Firstly, this study primarily collected TMD symptoms through questionnaires, yet it remains unclear whether standardized clinical diagnostic procedures were employed. According to DC/TMD guidelines,² a systematic clinical examination is recommended to accurately distinguish among various TMD subtypes, thereby reducing the risks of underdiagnosis and misdiagnosis. The absence of objective assessments may introduce recall bias and potential over-estimation or underestimation in self-reported symptoms, ultimately affecting the accuracy of TMD symptom counts.

Secondly, the article categorizes TMD symptoms simply into 0 to 5 items, without further differentiation of TMD subtypes such as muscle-related pain or intra-articular structural disorders. Previous research has highlighted distinct pathophysiological mechanisms and disease courses among different TMD types,³ merely quantifying symptom counts can lead to grouping bias. Such broad categorization does not adequately reveal the relationships between specific oral behaviors and particular TMD subtypes.

Thirdly, the authors define Spearman correlation coefficients between 0.3 and 0.6 as moderate, yet in the results section they label values of 0.32 and 0.35 as “moderate” and draw strong inferences. In fact, 0.32 is only slightly above the 0.3 threshold and may not justify a definitive conclusion of moderate correlation. The threshold for moderate correlation should be applied with greater caution.

Finally, the sample characteristics are unbalanced, with a high proportion of participants (77.34%) holding university degrees. Although the authors acknowledge this fact, they do not elaborate on the potential external validity issues arising from such an elevated educational level. Previous studies suggest that education level is closely related to oral health awareness and healthcare-seeking behaviors.⁴ If the sample primarily comprises highly educated individuals, its representativeness and wider applicability may be limited.

In subsequent research, if clinical examinations are used in combination with more refined TMD subtype stratification and rigorous control of confounding factors, the reliability and external validity of findings may be substantially enhanced. We appreciate the authors for their contributions to the field of TMD research.

Disclosure

The authors report no conflicts of interest in this communication.

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