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Clinical Outcomes and Predictors of Satisfaction in Patients with Improved Lithium Disilicate All-Ceramic Crowns

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Dear Editor,

It is with great interest that we read the article by Samer et al. [1] published in *Medical Principles and Practice* in October 2017. The authors designed and conducted a cross-sectional study to determine the predictors of satisfaction in patients with improved lithium disilicate (LD) all-ceramic crowns among a Malaysian population. Although this research is valuable and the results are interesting, the following methodological issues should be considered.

Firstly, the Discussion section states that this is a retrospective study; however, the Methods section describes the design of this study as cross-sectional. There is a major difference between these two types of study. In a retrospective study we first select the cases (with dependent variable) and controls (without dependent variable), and then measure past exposure to the independent variable; however, in a cross-sectional study we measure the independent and dependent variables at the same time [2]. It is important to choose the right term to describe the type of study. Gordis [2] provides the following guide, which might be useful:

- Cross-sectional study = Prevalence survey
- Case-control study = Retrospective study
- Cohort study = Longitudinal study = Prospective study
- Prospective cohort study = Concurrent cohort study = Concurrent prospective study
- Retrospective cohort study = Historical cohort study = Non-concurrent prospective study
- Randomized trial = Experimental study

Secondly, Samer et al. [1] in their cross-sectional study concluded that clinical oral hygiene habits were predictors of the clinical survival of LD crowns, and that oral hygiene habits had a significant influence on patient satisfaction with LD crowns. Although cross-sectional studies can be very useful for public health planning [3], they do not show the temporal relationship between the independent and dependent variables because these studies measure the associations between variables at the same time [2]. Thus, predictive or causal inferences cannot be made from them [4]. To identify the predictors, other epidemiological studies such as cohort studies must be used. Cohort studies have the ability to establish the temporal relationship and therefore identify true predictors [5].

Thus, we believe that the results of the study by Samer et al. [1] should be interpreted with caution.

Disclosure Statement

The authors declare that they have no conflict of interest.

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