ABSTRACT

Objectives: To evaluate how restoration characteristics are associated with the decision to repair or replace an existing restoration. The following hypotheses were studied: dentists who placed the original restoration are more likely to repair instead of replace restorations (H1) that are in molar teeth; (H2) that are in the upper arch; (H3) that have amalgam restorative material; (H4) if a fracture is not the primary reason for the defect; and (H5) when the restoration comprises more than one surface.

Methods: This cross-sectional study used a consecutive patient/restoration recruitment design. 194 dentists members of a dental practice-based research network recorded data on restorations in permanent teeth that needed repair or replacement.

Results: For 6,623 of the 8,770 defective restorations in 6,643 patients, the treatment was provided by the dentist who had not placed the original restoration (75%). The 2-way interaction revealed that dentists who had placed the original restoration often chose to repair when the defective restoration was in a molar, relative to premolar or anterior teeth (OR = 2.2, p < .001); and chose to replace when the restoration had amalgam (OR = 0.5, p < .001), and when it was a fracture compared to another reason (OR = 0.8, p = 0.01).

Conclusion: Most dentists are not conservative when they revisit a restoration that they originally placed regardless of type of failure, number of surfaces or material used. However, dentists who had placed the original restoration were significantly more likely to repair it when the defective restoration was in a molar tooth.

Clinical significance: Most dentists who placed the original restoration were prone to replace it, however if the defective restoration was located in a molar tooth they would consider repairing it.

KEY WORDS

Repair, replacement, decision, defective, restorations