

Caries management and restorative treatment decisions: opinions of Dutch GDPs

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Objective

Disparities among General Dental Practitioners (GDPs) with regard to various aspects of restorative treatment can lead to variations in rendered care. This has an impact on the oral health of patients and raises discussion concerning the effectiveness of care. The purpose of this study was to assess caries management strategies and restorative treatment decisions of Dutch GDPs using a questionnaire, which incorporated items coming from an existing questionnaire (Tubert -Jeannin et al, 2004).

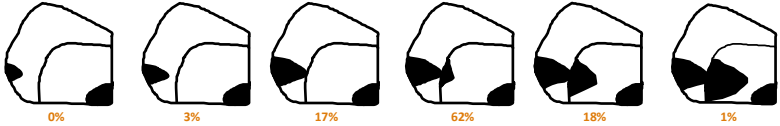
Methods

A total of 1,002 GDPs was invited by email to participate in a web survey, which mainly consisted of the assessment of selected aspects of diagnosis, indication and treatment of dental caries (4 cases) and defective restorations (5 cases) on the basis of presented radiographic and clinical photographs. After three reminders, a total of 280 (28%) GDPs responded. The data was analyzed using SPSS.

Results

- Respondents were asked which lesion requires immediate restorative treatment. That is, the lesion for which the respondent would not postpone restorative treatment under any circumstances even if the patient has low caries activity and good oral hygiene and brushes twice a day with fluoride containing toothpaste (Figure 1). The majority (62%) of the respondents answered they would restore a proximal caries lesion with obvious spread into the outer third of the dentin.

Figure 1



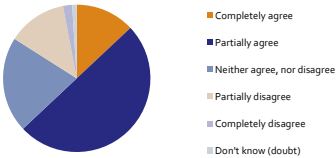
- Respondents were asked which lesion requires immediate restorative (operative) treatment. That is, the lesion for which the respondent would not postpone restorative treatment under any circumstances. Reckon that the patient is 20 years old, has low caries activity, good oral hygiene and brushes twice a day with fluoride containing toothpaste, and visits the dentist once a year for a check-up (Figure 2). 80% answered that they would indicate operative treatment in case the caries lesion reached into the middle third of dentin and they would remove caries tissue only.

Figure 2



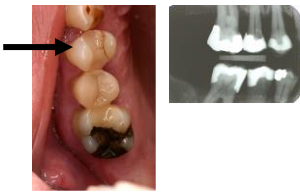
- In reaction to the statement 'cavitation of a proximal lesion is hardly easily clinically visible, even if the lesion has reached the enamel-dentin junction' (Figure 3), the majority (63%) of the respondents answered that they (completely or partially) agreed with this statement.

Figure 3



- This patient vignette (Figure 4) describes a 40-years old patient, with acceptable oral hygiene and in a good medical condition. The periodontal situation is stable and no apical lesions are present. The patient wants to keep the dentition. No financial limitations are present. The respondents were asked to give their opinion concerning the clinical condition of the first upper bicuspid, pointed by the arrow (more options possible). Regarding diagnosis and re-restoration decisions, a wide variation exists between decisions to intervene and between recommend intervention type.

Figure 4



- Diagnosis: of all respondents, 94% diagnosed in some way a deficient restoration, while 6% concluded there was no deficiency (Figure 5).
- Therapy: the majority (66%) of respondents indicated a new composite restoration, another 9% recommended repair of the current restoration, 5% indicated an indirect restoration, whereas 16% did not indicate any curative intervention (Figure 6).
- The majority (91%) of those who diagnosed 'caries', also indicated a new composite resin restoration. Most (71%) of those who diagnosed 'fractured restoration', also indicated a new composite resin restoration, another 10% repair of the present restoration, and 9% recommend to (radiologically) monitor the tooth.

Figure 5

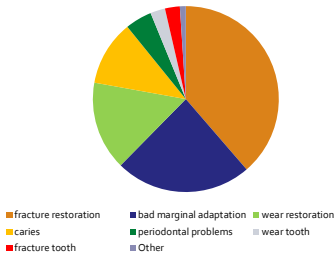
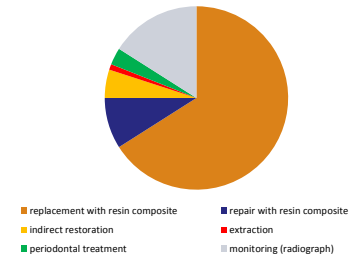


Figure 6



Conclusion

As a considerable variation regarding caries management and treatment decisions exists among the participating Dutch GDPs, this study underlines the need to develop clinical decision aids on issues related to diagnosis and treatment of dental caries.