Prevention and Treatment of Periodontal Diseases in Primary Care: Findings from a pre-publication questionnaire

The Scottish Dental Clinical Effectiveness Programme (SDCEP) published guidance on the *Prevention and Treatment of Periodontal Diseases in Primary Care* in 2014.

To inform the development of appropriate training and support to help practitioners implement this guidance, a pre-publication questionnaire was sent to dentists and dental hygienists/hygiene-therapists across Scotland, six weeks prior to the dissemination of the guidance. This questionnaire asked participants about their current practice, and their beliefs regarding four recommendations included within the guidance: giving Oral Hygiene Instruction (OHI); carrying out a Basic Periodontal Examination (BPE); conducting a full periodontal examination; and discussing smoking with patients. The aim of this questionnaire was to collect baseline data on current practice and identify factors that influenced compliance with the four recommendations.

Key Findings

- 121 dentists and 99 dental hygienist/hygiene-therapists completed the questionnaire.
- Varying levels of current practice were reported by both professional groups.
- Both groups reported that their highest compliance was for “removal of supra-gingival plaque, calculus and stain”.
- The lowest compliance, for both groups, was for “carrying out a full periodontal examination for patients with a BPE score of 3 in one sextant (examining the affected sextant only)”.
- There were mixed responses regarding which member of the dental team usually carried out the recommendations, e.g. 80% reported that dentists would usually carry out a basic periodontal examination on dentate patients at a routine examination; 61% reported that dental hygienists/hygiene-therapists would usually carry out a full periodontal examination, and conduct the removal of supra-gingival and sub-gingival plaque, calculus and stain.

Next Steps

This study was repeated six months after publication of the guidance document, to determine current practice and to inform development of theoretically driven interventions to improve evidence-based practice, if required.

This summary presents key findings from a pre-publication questionnaire conducted before the dissemination of the *Prevention and Treatment of Periodontal Diseases in Primary Care* guidance. This was carried out by SDCEP and TRiaDS to inform the development of the new guidance.

SDCEP (Scottish Dental Clinical Effectiveness Programme) has a national remit to provide user-friendly, evidence based, clinical guidance in priority areas for dental healthcare in Scotland.

TRiaDS (Translation Research in a Dental Setting) is a multidisciplinary research collaboration working in partnership with SDCEP to increase the implementation of SDCEP guidance through the development and evaluation of theory-informed interventions for change.

Background and Aim

The Scottish Dental Clinical Effectiveness Programme (SDCEP) published guidance on the *Prevention and Treatment of Periodontal Diseases in Primary Care* in June 2014.

As part of the guidance development process, a scoping study was conducted, to explore current practice and practitioners' attitudes towards managing periodontal diseases, as well as their preferences regarding the content of the periodontal guidance.

The guidance then underwent a consultation period in which a draft of the guidance was made available to various individuals and organisations, including practitioners working in primary care. During this period members of TRiaDS (Translation Research in a Dental Setting) who work in collaboration with SDCEP, conducted telephone interviews with practitioners to explore their thoughts on the usability of the guidance and their views about implementing the recommendations made by the guidance.

The data gathered from the consultation period informed this next phase: a diagnostic survey of the wider dental population, which aimed to establish current practice and identify beliefs about recommendations made in the guidance.

Methods

Design

A pre-publication questionnaire was sent to dentists and dental hygienists/hygiene-therapists in Scotland.

Questionnaire

A postal questionnaire was sent to participants six weeks prior to the publication of the SDCEP guidance. It contained questions about current practice in relation to 12 recommendations within the guidance, and beliefs about giving OHI, carrying out a BPE, conducting a full periodontal examination, and discussing smoking with patients. Demographic information was also collected. Questions on beliefs were informed by the Theoretical Domains Framework (TDF). The TDF is a validated tool used to identify what may influence a person carrying out a recommended behaviour, and consists of 14 domains, such as skills, social influence, environment and motivation.

Participants

250 dentists and 250 dental hygienists/hygiene therapists (DH/HT) in Scotland were randomly selected to receive the questionnaire.

Analysis

Quantitative data collected from the questionnaire was analysed using IBM SPSS Statistics v24. The mean was used as the measure of central tendency and descriptive statistics were calculated.

Results

One hundred and twenty-one dentists and 99 DH/HTs completed the questionnaire. The response rate for dentists was 50% and 41% for DH/HTs.

Of the participants, 46% of the 121 dentists were male, and 99% of the DH/HTs were female. On average, dentists worked 8 sessions per week and DH/HTs worked 7 sessions. For dentists, 74% of their patients were only/mostly NHS, whereas for DH/HTs 42% were only/mostly private, and 45% were only/mostly NHS.

When asked to self-report the extent to which 12 of the key recommendations within the guidance are currently done in their practice, the dentists and DH/HTs scored varying levels of current practice, but did agree on which recommendations were currently delivered the most and the least in their practice. The highest compliance was for 'Removal of supra-gingival plaque, calculus and stain' and the lowest was 'Carrying out a full periodontal examination for patients with a BPE score of 3 in one sextant (examining the affected sextant only)'. Table 1 shows the percent of compliance for the 12 recommendations.

Table 1: Distribution of responses on a compliance scale (i.e. currently done in your dental practice) (1 = not at all, 5 = always), split by professional group

Recommendations	1/2		3		4/5	
	Dentist	DH/HT	Dentist	DH/HT	Dentist	DH/HT
Carry out a basic periodontal examination	2%	2%	8%	11%	90%	86%
BPE score of 4 in any sextant	23%	10%	21%	25%	57%	64%
BPE score of 3 in more than one sextant	40%	24%	33%	40%	27%	37%
BPE score of 3 in one sextant (examining the affected sextant only)	52%	32%	23%	32%	41%	35%
Removal of supra-gingival plaque, calculus and stain	3%	0	3%	2%	95%	98%
Removal of sub-gingival plaque and calculus	3%	1%	5%	6%	92%	93%
Deliver oral hygiene instruction to patients	1%	0	9%	3%	91%	97%
Discuss with patients who smoke, the effect of smoking on their oral health	6%	3%	18%	6%	76%	91%
Discuss with patients who smoke, the effect of smoking on their general health	28%	12%	21%	28%	51%	61%
Explain to patients it requires a life-long commitment to oral hygiene	4%	3%	14%	8%	83%	89%
Offer patients local anaesthesia before root surface instrumentation	18%	10%	34%	29%	22%	62%
Create an individualised treatment plan for patients with periodontitis	21%	6%	36%	22%	43%	72%

** Percentages may not sum to 100 due to rounding*.

With regard to current practice, the questionnaire also asked about the member of the dental team that usually carried out dental procedures related to periodontal care. Eighty percent reported that dentists would usually carry out a basic periodontal examination on dentate patients at a routine examination. Dentists would also usually create an individualised treatment plan for patients with periodontitis (reported by 56% of participants). Sixty-one percent reported that DH/HTs would usually carry out a full periodontal examination, and conduct the removal of supra-gingival and sub-gingival plaque, calculus and stain. Sixty percent reported that DH/HTs would usually deliver oral hygiene instruction. Responses to the other recommendations were mixed, suggesting that both dentists and DH/HTs would usually carry these out. The full results are presented in Table 2.

Table 2: Percentage of practitioners who usually do the recommendations

Who usually does the following?		Dentist	DH/HT	Dental Nurse	Combination Or All*
1.	Carry out a basic periodontal examination (BPE) on dentate patients at routine examination	80%	14%	-	5%
2.	Carry out a full periodontal examination	36%	61%	-	2%
3.	Removal of supra-gingival and sub-gingival plaque, calculus and stain	32%	61%	-	7%
4.	Deliver oral hygiene instruction	31%	60%	1%	7%
5.	Discuss with patients who smoke, the effects of smoking on their oral health and general health	48%	47%	3%	1%
6.	Explain to patients that periodontal disease is a chronic condition which requires a life-long commitment to oral hygiene	44%	40%	-	16%
7.	Offer patients local anaesthesia before root surface instrumentation	46%	46%	-	8%
8.	Create an individualised treatment plan for patients with periodontitis	56%	33%	-	11%

* Includes dentists, dental therapist, hygienist/therapist, dental nurse and hygienist nurse
Percentages may not sum to 100 due to rounding.

Next Steps

A follow-up questionnaire was sent to participants six months after the publication of the guidance. This aimed to determine current practice following the publication of the guidance and to inform the development of theoretically driven interventions to improve evidence-based practice, if required.

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Report Preparation

This report has been prepared by Laura Beaton and Gillian Forbes, on behalf of TRiaDS.