

## Prevention and Treatment of Periodontal Diseases in Primary Care: Findings from a post-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. Six months after the guidance was published, a post-publication questionnaire was sent to the same cohort of participants, and asked the same questions as the pre-publication questionnaire about 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. It also included questions about the usefulness of a selection of SDCEP guidance, including *Prevention and Treatment of Periodontal Diseases in Primary Care* and an associated online resource "TIPPS".

The aim of this questionnaire was to establish current practice and beliefs following the publication of the guidance and to identify areas where interventions could be designed to support implementation.

### Key Findings

- 70 dentists and 64 dental hygienist/hygiene-therapists completed the questionnaire.
- As in the pre-publication questionnaire, 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 was little change in responses regarding which member of the dental team usually carried out the recommendations. 81% reported that dentists would usually carry out a basic periodontal examination on dentate patients at a routine examination; 63% reported that dental hygienist/hygiene-therapists would usually deliver oral hygiene instruction.

### Next Steps

The findings from this post-publication questionnaire will be used to inform the development of theoretically-driven interventions to improve evidence-based practice, if required.

This summary presents key findings from a post-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 support the implementation of the 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

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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. A pre-publication questionnaire was sent to dentists and dental hygienists/hygiene-therapists (DH/HTs) six weeks prior to the publication of the questionnaire. Six months later, a post-publication questionnaire was sent to the same participants, to capture current practice following dissemination of the guidance and to identify where interventions could be developed to support implementation.

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## Methods

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### Design

A post-publication questionnaire was sent to the same dentists and dental hygienists/hygiene-therapists in Scotland who completed the pre-publication questionnaire.

### Questionnaire

A postal questionnaire was sent to participants six months following 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.

In addition to the same questions that were included in the pre-publication questionnaire, the post-publication version included questions about the usefulness of a range of SDCEP guidance, and the usefulness of various support/resource options, e.g. patient information leaflets or guidance checklists.

### Participants

Participants who completed the pre-publication questionnaire were invited to take part in the post-publication follow-up.

### 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.

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## Results

Seventy dentists and 64 DH/HTs completed the questionnaire. The response rate for dentists was 58% and 64% for DH/HTs.

Forty-nine percent of participating dentists were male, 51% were female. From the DH/HTs, 2% were male, 98% 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 44% were only/mostly private, and 49% were only/mostly NHS.

Compliance with the recommendations had changed little following the publication of the guidance. As with the findings from the pre-publication questionnaire, 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	3%	0	7%	13%	90%	87%
BPE score of 4 in any sextant	19%	10%	23%	19%	58%	72%
BPE score of 3 in more than one sextant	27%	18%	38%	34%	34%	48%
BPE score of 3 in one sextant (examining the affected sextant only)	40%	21%	27%	39%	33%	40%
Removal of supra-gingival plaque, calculus and stain	3%	0	4%	0	93%	100%
Removal of sub-gingival plaque and calculus	3%	0	6%	2%	91%	98%
Deliver oral hygiene instruction to patients	0	0	5%	5%	95%	95%
Discuss with patients who smoke, the effect of smoking on their oral health	7%	3%	15%	6%	78%	90%
Discuss with patients who smoke, the effect of smoking on their general health	29%	12%	26%	16%	45%	73%
Explain to patients it requires a life-long commitment to oral hygiene	1%	2%	16%	5%	82%	93%
Offer patients local anaesthesia before root surface instrumentation	12%	13%	37%	35%	52%	53%
Create an individualised treatment plan for patients with periodontitis	16%	9%	27%	19%	58%	73%

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

Similarly, there was little change regarding the member of the dental team that usually carried out dental procedures related to periodontal care. Eighty-one 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 59% of respondents) – these percentages are slightly higher than before publication. While pre-publication 61% reported that DH/HTs would usually carry out a full periodontal examination, this had reduced to 52% post-publication. DH/HTs were still more likely to deliver oral hygiene instruction (reported by 63%) and to conduct the removal of supra-gingival and sub-gingival plaque, calculus and stain (60%). 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	81%	12%	-	7%
2. Carry out a full periodontal examination	42%	52%	-	6%
3. Removal of supra-gingival and sub-gingival plaque, calculus and stain	33%	60%	-	8%
4. Deliver oral hygiene instruction	33%	63%	1%	4%
5. Discuss with patients who smoke, the effects of smoking on their oral health and general health	49%	51%	0	1%
6. Explain to patients that periodontal disease is a chronic condition which requires a life-long commitment to oral hygiene	43%	40%	-	17%
7. Offer patients local anaesthesia before root surface instrumentation	47%	42%	-	11%
8. Create an individualised treatment plan for patients with periodontitis	59%	30%	-	12%

\* Includes dentists, dental therapist, hygienist/therapist, dental nurse and hygienist nurse

Percentages may not sum to 100 due to rounding.

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## Next Steps

The findings from the pre- and post-publication questionnaires will be used to compare current practice and beliefs before and after the publication of the SDCEP *Prevention and Treatment of Periodontal Diseases in Primary Care* guidance. It is anticipated that these findings will be published in an article for a academic, peer-reviewed, journal in due course.

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## Report Preparation

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

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