PREVENTION AND TREATMENT OF PERIODONTAL DISEASES IN PRIMARY CARE: SCOPING RESEARCH SUMMARY - 2013

INTRODUCTION

The Scottish Dental Clinical Effectiveness Programme (SDCEP) is developing guidance on the prevention and treatment of periodontal diseases in primary care in collaboration with TRiaDS (Translation Research in a Dental Setting). The aim of conducting this research was to focus on the content and implementation of this guidance.

The initial stage of this research was your involvement in the scoping stage by taking part either in the telephone interviews or by completing the survey. The aims of the scoping research were to identify current practice and to investigate the attitudes and beliefs of dentists and hygienists towards treating and managing the periodontal health of patients.

Furthermore, to support SDCEP's philosophy of developing user-friendly guidance, your views from primary care practices were sought about the topics of most usefulness and interest to help focus on guidance content.

Some information was also gathered from patients about their experiences of primary dental care to help further inform the guidance development.

1. TELEPHONE INTERVIEWS FINDINGS

Eighteen dentists and 3 hygienists (DH) discussed their current practice and gave their views on the following topics relating to periodontal diseases:-

1.1 Current Assessment

Thirteen dentists only used the BPE[1] and 5 dentists used the CPITN[2] on its own or in combination with the BPE to assess patients for periodontal diseases. Two DHs did their own assessment, although assessed by the dentist already. One DH reported the treatment plan was *'brief and basic'*.

1.2 Prevalence

The numbers of patients assessed with a BPE 1 and 2, BPE 3 or a BPE 4 varied within each group and by dentists e.g. the range assessed with a BPE of 3, out of 10 patients, was between one and 5. DHs answered varied similarly.

[1] Basic Periodontal Examination

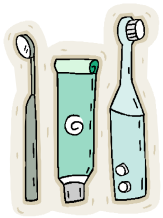
[2] Community Periodontal Index of Treatment Needs

1.3 Management of patients with periodontal disease

Table 1 shows the range of treatments provided for each BPE grouping as reported by dentists:-

Table 1 – Range of treatments provided to patients by dentists

BPE 1 and 2	BPE 3	BPE 4
Oral hygiene instruction; tooth brushing instruction; simple scale & polish		
Discuss with patient their BPE scores & what it means; outcomes; joint effort; patient-led questions; treatment by hygienist and/or hygienist therapist if available		
	Sub-gingival scale and polish (including root planing); BPE pocket charts; 2-12 month recalls; irrigation of pockets with chlorohexidine & hydrogen peroxide; antibiotic paste; radiographs; refer	
		Full hygiene therapy; extraction if mobile; some surgery i.e. lift flaps; refer



1.4 Secondary care

A referral to secondary care was primarily led by periodontal conditions not responding to treatment and also, if more advanced surgery was required. Non-clinical factors including waiting time, travelling distance to dental hospital, time and cost implications to the patients and also the patient's motivation to attend were discussed. These non-clinical external factors were viewed as barriers to the management of periodontal diseases.

1.5 Beliefs and attitudes towards periodontal diseases:

1.5.1 Routine and Habit - The treatment of periodontal disease is an accepted part of the daily routine. However, its presence is not always acknowledged as something that needs to be dealt with and is not often discussed.

One dentist expressed this by saying: - *"It is the one big area in dentistry; I think is the 'elephant in the room' that no-one talks about"*.

Some words used were *"confusing"*, *"not exciting"*, *"nothing changes"* and *"frustrating"*.

These descriptions underpinned a belief that the treatment of periodontal disease required long-term repetitive treatments and that a positive outcome is not always guaranteed especially without the substantial input of patients to maintain good oral health.

1.5.2 Patients - All believed that one key factor to successful treatment was the patient's involvement. In instances where the patients were not motivated to maintain good oral health, any treatment by the dentist was seen as *"futile"* and *"frustrating"*.

1.5.3 Dental hygienists - Those dentists with access to a DH perceived it to be the responsibility of the hygienist to treat patients with periodontal disease. One quote: -

"Hygienists are key. Dentists get fed up doing it, possibly hygienists do too, but it is their lot".

The presence of the DHs often resulted in a more positive belief towards periodontal disease from the dentists as it freed them up to do other treatments.

1.5.4 Knowledge - Despite the management of periodontal disease being an everyday occurrence, some concerns were raised regarding its appropriate treatment and skill requirements. One dentist expressed the view:-

"I think people are frightened of perio, sometimes of what they can and cannot do".

In contrast, the DHs were confident about providing treatments and perceived referrals to secondary care as being unnecessary as:-

"Dental hospitals are inundated with patients, they are not interested in maintenance and they can't do more than I can do".

1.5.5 Time and Money - A salient theme was the relationship between time and remuneration. It was repeatedly mentioned that the SDR[3] did not adequately reimburse for the actual time needed to give appropriate treatments to patients with periodontal diseases.

2. SURVEY RESULTS (Hygienists only)

The 192 hygienists returning a survey worked in only NHS practices (25%), private (14%), or a combination of both (61%). 56% DHs reported working with one principal dentist. The key findings in percentages[4] from the questions are: -

2.1 Who conducts the assessment? 39% DHs reported assessments were completed by only the dentists and by only a DH (12%) or a hygiene-therapist (HTs) (1%). It was reported to be jointly assessed by the dentist, HT and DH by 48% DHs.

2.2 How often is an assessment done? 56% DHs reported that an assessment would be conducted at a routine examination. One DH stated an assessment was rarely done and others reported to be sometimes (12%) or usually (31%) done at the routine examination.

2.3 How is the check done? The main method used to check was the BPE with 61% DHs reporting its use in their practice. A small number of DHs reported different methods and these included the CPITN (5%), visual inspection (0.5%), 'other' (1%) and a combination of all these methods (32.5%). 25 DHs gave further comments about how the check was done. Some commented that in addition radiographs would be taken and a few mentioned that a 6 point or full pocket chart and/or a plaque and bleeding score would also be done.

2.4 Are children routinely assessed? 70% DH stated that children were not routinely assessed for periodontal disease. In the practices where children were assessed, 58 DHs gave comments on at what age this occurred. Often stated was a starting age, for example *'from 6 months', 'approx 10 yrs upwards' and 'by early teens'*.

Also some DHs noted that the child's own oral health history and also *'if parents have known perio issues'* would contribute to the decision of doing an assessment.

2.5 Prevalence of periodontal diseases: 81% DHs had treated an average of 10% patients with no periodontal disease, i.e. a BPE score of 0, over the preceding month. The periodontal condition of the other 90% of patients treated by the DHs was 37% with BPE of 1 and 2, 39% with a BPE of 3 and 24% with a BPE of 4.

2.6 Treatments provided to BPE of 3 and 4 groupings: 57% DHs would treat a patient with BPE score of 3 with a 10b[5] and 18% would do a 10c[6] course of treatments. The percentage of DHs whose patients with a BPE of 4 would receive the treatment of a 10b and a 10c were 35% and 44% respectively.

2.7 Secondary care referrals Overall, the percentage of patients always referred to secondary care was small, with slightly more BPE 4 patients (5%) than BPE 3 patients (3%) always referred.

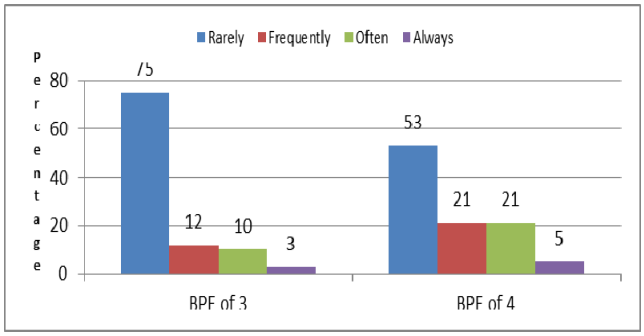
[3] Statement of Dental Remuneration

[4] Percentage totals of valid responses only

[5] Treatment of periodontal disease requiring more than one visit, including oral hygiene instruction, scaling, polishing and marginal correction of fillings

[6] Non-surgical treatment of chronic periodontal disease, including oral hygiene instruction, over a minimum of three visits, with not less than one month between the first and third visit, and with re-evaluation of the patient's condition (to include full periodontal charting) at a further visit not less than two complete calendar months after active treatment is complete. Treatment to include root-planning, deep scaling and, where required, marginal correction of restorations, irrigation of periodontal pockets, sub-gingival curettage and/or gingival packing of affected teeth, and all necessary scaling and polishing

A breakdown by percentage of how often patients with a BPE of 3 and 4 are referred to secondary care is shown on Figure 1 below.



2.8 Considerations to referring to secondary care

DHs reported several key factors:-

2.8.1 Characteristics of the patient - Motivation to attend appointments (54%) and compliance to maintain good oral health (43%) were 'always' taken into consideration but their age (15%) was not regarded as important.

2.8.2 Dental hospital - Always considered were waiting times (31%) and also its location as this affected the patients' travelling costs (40%) and distance they had to travel (40%).

2.8.3 Practice - 39% of DHs reported that the treatment skills available in the practice would 'always' be considered when referring.

2.8.4 Remuneration - the availability of fee from the SDR was 'never' a consideration when sending for secondary care treatment in 50% of the responses.

2.9 Management of patients with periodontal disease

The DHs' responses on how patients are managed are shown in Table 2 below:-

2.10 Assessment, Oral Hygiene Instruction (OHI) and treatment of patients

The survey asked the DHs about their attitudes and beliefs about 3 aspects of managing patients with periodontal diseases: assessment, the giving of oral health instruction and the provision of treatments. The questions were underpinned by the framework of theoretical domains and so asked about professional role, skills, belief about capabilities, motivation, and environment.

(The following results are the percentage of DHs scoring a 5, 6 & 7 on a scale of 1 (low) – 7 (high) agreement)

2.10.1 Assessment - There was agreement among the DHs that the assessment of patients was part of their professional role (93%) and so they were motivated to do it (95%), however, they also expected the dentist to make an assessment (77%). Most DH's were confident in their skills to assess effectively (97%) and found it to be neither difficult (86%) nor stressful (71%). The context in which this occurred was described as being routine (83%) but constrained by time (55%).

2.10.2 Oral hygiene instruction - 100% of DHs were confident in their skills to give OHI and perceived it as part of their professional role (99%) but 64% agreed the dentists should also provide it. While some DHs found it stressful (10%), all DHs stated that giving OHI was a large part of their daily routine (100%). Although 24% of DHs found it to be challenging, and less than half (47%) said it was only worthwhile if patients were receptive, however, 100% of them were still motivated to give it. Again, time was said to be limited by 48% of the DHs.

2.10.3 Treatment - Once again there was high agreement regarding their professional role (100%) and skills (98%) to provide treatments. Although treating patients was reported by 30% of DHs to be more stressful and challenging than either giving OHI or assessing periodontal disease, it was not less important to do (99%). The high routineness of the treatments (95%), the challenges (77%) the absence of a diagnosis (56%), and the time restrictions (54%) did not reduce the motivation of the DHs (99%).

Table 2 – Management of patients with periodontal disease
(N.B. Percentages may not sum to 100 due to rounding)

Questions (Ranked by 'always' response)	Always (%)	Usually (%)	Sometimes (%)	Never (%)
Is the dentist expecting you to give the patient oral hygiene instruction?	88	11	1	1
Do you think you can discuss changes to the treatment plan?	71	17	11	1
Do you have the support of a dental nurse?	50	20	15	14
Before being seen by you, has the dentist discussed the diagnosis with the patient?	25	37	33	5
Does the dentist provide a treatment plan?	27	31	33	9
Does the dentist provide a diagnosis?	24	41	33	2
Do you agree with the diagnosis?	8	60	32	1
Do you think the treatment plan is appropriate?	8	54	37	2

4. CONTENT OF GUIDANCE

Overall the development of this new guidance was viewed positively with the majority giving constructive suggestions and preferences of the topics required. Support for the inclusion of the following topics was offered:-

- Role of primary care
- Antibiotics
- Dento-legal i.e. new patients
- Smoking cessation
- Children with periodontal disease
- Medication i.e. patients with diabetes
- Patients with dental implants
- Instrumentation
- General trends in best practice

In addition to the above, hygienists recommended topics on the following should be included:-

- Management of non-responding patients
- When to refer to secondary care
- Appropriate diagnosis and treatment plans

The overall preference to the format of the guideline was *'not too wordy'*, to contain flow charts and be simple and easy to use. Availability of the guidance in paper-based, web-based version and an app version for mobiles came from both dentists and DHs.

5. SUMMARY OF FINDINGS

In general, the requirement for guidance was indicated by the positive feedback about its development from both dentists and hygienists. Most perceived little difficulty in assessing and diagnosing periodontal diseases because it is part of their daily routine. However, the results showed a range in the severity of the periodontal conditions being presented and some differentiation in treatments given to patients.

Dealing with patients with periodontal disease was a large part of the daily routine in primary dental care as expected. A commonly perceived barrier to treatment by hygienists was the lack of a diagnosis and treatment plan from the dentist and time limitations for the appropriate treatment to be completed.

Also the specific non-clinical barriers to successful prevention were the lack of motivation from patients and low remuneration to practices.

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6. BUILDING ON THE EXPERIENCES OF PATIENTS

Also, a preliminary focus group of patients were asked about their experiences and views on the oral health information they receive from primary dental practices. The key findings were as follows:-

- Generally, patients thought that more advice could be offered about oral hygiene care
- Patients expect advice to be 'tailor-made' to the needs of the individual
- Patients observed that advice was more likely to be given to children compared to adults
- Oral hygiene advice, OHI and literature should be offered freely
- Patients do not expect to receive advice on diet, smoking and alcohol consumption unless it is given within the context of caring for their teeth
- Patients want help with understanding the available choice of toothbrushes, toothpaste and floss as seen in shops and on television adverts

By highlighting the needs of users of primary dental care services, these results will inform the development of guidance and suggest topics which dentists and hygienists should consider when giving oral hygiene advice and instruction (OHI) to patients.

7. ACKNOWLEDGEMENTS

SDCEP would like to give thanks to all who participated in the scoping research for the forthcoming SDCEP guidance Prevention and Management of Periodontal Diseases in Primary Care.

8. FURTHER INFORMATION If you wish further details or have any questions about the summary, please feel free to contact us by email:-scottishdental.cep@nes.scot.nhs.uk or call the SDCEP office on 01382 740964/425751