CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

| | |
|---|---|
| Title | Managing periodontal disease: the clinician's role and the patient's responsibility |
| Authors | Buckley, Peter;Roberts, Anthony |
| Publication date | 2013-06-01 |
| Original Citation | Buckley, P. and Roberts, A. (2013) 'Managing periodontal disease: the clinician's role and the patient's responsibility', Dental Therapy Update, 6(2), pp. 20-24. |
| Type of publication | Article (non peer-reviewed) |
| Link to publisher's version | http://www.dentaltherapy-update.co.uk/ |
| Rights | © 2013, George Warman Publications Ltd. |
| Download date | 2026-11-03 10:11:43 |
| Item downloaded from | https://hdl.handle.net/10468/2826 |


UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

# Managing periodontal disease

**Peter Buckley** and **Anthony Roberts** discuss the clinician's role and the patient's responsibility.

**Abstract:** This manuscript highlights the roles and responsibilities of the clinician and patient in the successful management of periodontal disease.
**Clinical relevance:** This article highlights the variety of factors that need to be addressed for periodontal diseases to be successfully managed.
**Learning objective:** The reader should understand the broad range of issues that require consideration for patients to be successfully managed for their periodontal problems.

Successful periodontal treatment is the goal for patients and clinicians alike. However, 'success' is difficult to define as patients and clinicians often assess this in different ways. Patients may express successful periodontal treatment as a 'reduction in bleeding when I brush' or that 'my wife has noticed that my breath has improved'. In contrast, clinicians may measure a reduction in marginal bleeding, bleeding on probing and / or probing pocket depths as indicating improvements. It is clear that 'success' is a broad term and that a successful treatment outcome will mean different things to different patients dependent upon their knowledge and treatment aspiration(s). Despite this finding, a clear constant in successful periodontal therapy remains the joint contribution from both clinician and patient. It is a bi-directional and symbiotic approach that leads to success and it is rare that efforts made by a patient or clinician in isolation results in long-term periodontal stability. This article highlights what clinicians need to offer their patients and what patients need to do for themselves.



**Anthony Roberts** is professor of dental education and honorary consultant in restorative dentistry at the School of Dentistry, Manchester University.

## Clinician's role

As clinicians, the roles that we play are broad and varied. Some roles are simply the performance of routine mandatory minimum requirements (such as the Basic Periodontal Examination) whilst others require tailoring to specific patient requirements, for example, oral hygiene instruction and demonstration. The following headings address the issues surrounding the role of the clinician.

## Recognition

The first responsibility of the clinician is to screen for periodontal disease and recognise it as early as possible. The recognition of periodontal disease often presents the first hurdle, as there are a considerable number of factors to assess, including those outlined in Table 1. Table 1 does not represent an exhaustive list of features that require assessment, but illustrates the potential breadth of a periodontal examination. There are of course other assessment techniques such as radiography; however the commonest system in the United Kingdom for periodontal assessment is the Basic Periodontal Examination (BPE).

Periodontal diseases are wide ranging in their presentation and certainly some periodontal diseases are difficult to identify without periodontal probing. Too often clinicians are over-reliant on 'eye-balling' the periodontal tissues without probing, concluding that 'all is well' when probing would reveal the contrary.

**Peter Buckley** is a dental foundation year 2 trainee.

| |
|---|
| Gingival colour |
| Gingival contour |
| Gingival Biotype |
| Pocket depth, recession, and attachment loss. |
| Marginal bleeding |
| Bleeding on probing |
| Tooth mobility |
| Furcation involvement |
| Presence and location of calculus or other plaque-retention factors |
| Presence / absence of suppuration |

Table 1: The clinical features of the periodontal tissues that require assessment.

Whilst the BPE is widely accepted and performed, close inspection of the system in light of the features identified in table 1 illustrates that the BPE is not an all-encompassing tool. It is simply a screen to pick out those patients with periodontal problems from those without (table 2). Indeed, anecdotally there may be an over reliance on the BPE in the expectation that it is a comprehensive tool for periodontal assessment; this was never the intention. If significant BPE Codes are identified, further investigations are warranted, for example, detailed periodontal charting and radiographs.

## Diagnosis

From the history, examination and appropriate special tests a diagnosis should be derived. There is a broad range of periodontal diseases and without formulating (and recording) a diagnosis, clinicians may fall into the trap of incorrect management. For example, a patient with aggressive periodontitis is likely to require systemic antibiotics at the same time as sub-gingival biofilm disruption and repeated sub-gingival biofilm disruption without antibiotics may prove ineffective alone. A certain level of additional detail may be required to formulate an appropriate diagnosis and treatment plan. For example, in the cases of chronic

| Feature | Assessed by BPE? | Reason |
|---|---|---|
| Gingival colour | x | Degree of erythema not assessed |
| Gingival contour | x | Gingival contour not assessed |
| Pocket depth | Yes | Only by banding not definitive depth recording |
| Bleeding on probing | Yes | Only codes 1 or 0 provide information |
| Mobility | x | Degree of mobility not assessed |
| Levels of plaque | x | Amount of plaque not assessed |
| Presence & location of calculus | Yes | Code 0 or 2 only |
| Presence & location of plaque retention factors | Yes | Code 0 or 2 only |
| Radiographs – long cone periapicals/ OPG | x | Clinical examination only |

Table 2: The basic periodontal examination (BPE) as an assessment tool.

| | |
|---|---|
| **The diagnosis** | Including severity/extent |
| **The options for management** | Non-intervention, intervention, palliation or extraction |
| **Appropriate phases of management** | Plaque control, non-surgical instrumentation or surgery. Usually these phases will proceed in this sequence, with surgical intervention often a 'last resort' |
| **Patterns of management** | Conventional staged debridement or full mouth debridement |
| **The likely outcomes and timescales for each option** | Dependent on the individual circumstances |

Table 3: Verbal and written information to provide for patients.

periodontitis and aggressive periodontitis, information relating to severity and extent should be also be considered; severity may be graded in terms of attachment loss – mild (1–2mm), moderate (3–4mm) or severe (>5mm). The extent of disease may be recorded as a percentage of sites of the periodontium affected – localised (<30 per cent sites) or generalised (>30 per cent sites).

## Communication

The patient should be informed of the clinician's findings and resulting diagnosis, explained to them in a way they can understand. The natural next step is a treatment plan of which there could be multiple options that clinicians and patients should jointly consider. Clinicians should discuss with their patient appropriate treatment options along with their benefits and risks; with input from both parties a plan should be produced and recorded. For patients with severe periodontal attachment loss in the upper anterior sextant with drifting and mobility, root surface debridement in isolation is unlikely to address all of the patient's concerns with extractions being a possible consideration.

With the complexities of periodontal diseases, it should not be assumed that patients will recall 100 per cent of the information given to them verbally. Written information to supplement the verbal information is worthwhile, allowing the patient to reflect and learn in their own time (table 3).

In periodontal therapy, commonly the goal of treatment is to either halt progression or at least slow progression of disease. This is an important point for the patient's understanding of their condition, as periodontal disease often causes irreversible damage.

## Planning and co-ordination

When treatment planning, consider the prognosis of individual teeth. It is best to identify teeth for extraction early on in the treatment phase.There is little or no point in providing periodontal treatment for teeth with a poor prognosis, or teeth that provide no functional or aesthetic benefit. It must also be borne in mind that teeth may be lost in the future, because this will affect the other aspects of the patient's care, for example, the design of a denture. Ideally the fully colleted 'gum stripper' denture design should be avoided. Rather, some form of tooth support (without overloading) or Every denture should be considered.

If a dental hygienist or therapist will be providing some of the patient's treatment the communication between dental team members should be clear. This includes some detail in referrals for these appointments. Identify the treatment goal and what should be accomplished at these appointments. For example;

- oral hygiene instruction (OHI) including toothbrush and interdental cleaning instruction
- disclosing dye
- scaling ± local anaesthetic (type, dose etc)
- detailed periodontal charting (DPC)
- RSD ± local anaesthetic (type, dose etc)

Providing detailed referrals leaves less 'to chance' regarding this. It is also recommended that a realistic approach to appointment times is employed to allow for provision of high-quality care; a 15-minute appointment is unlikely to achieve anything other than a basic form of periodontal maintenance.

## Demonstration

Oral hygiene is of great importance for patients with periodontal problems. There is systematic review evidence that professional mechanical plaque removal is of little value if not accompanied by oral hygiene instruction[1]. Clinicians have a responsibility to inform patients of, and demonstrate, techniques they can use to maintain good oral hygiene. This should comprise more than saying to the patient 'Just brush better…'! Demonstration of cleaning techniques on models, and➲

➲then in the patient's own mouth is useful here; watching patients brushing their teeth can be illuminating. Providing photographs for the patient of the cleaning methods being used in their own mouth helps them to remember their responsibilities. Whilst in surgery they may be invited to perform the techniques shown to them to build their competence, and any adjustments necessary can be made there and then.

Patients have their own individual needs and their oral hygiene regimen should be designed and adapted with this in mind. Identifying areas requiring particular attention, for example, areas of deep pocketing, is useful in this regard. It may be found that individuality may render conventional oral hygiene products unfit for the job. But remember, clinicians are free to adapt oral hygiene products as necessary. For example, trimming single-tufted brushes so that they are fine enough to be able to clean deeper pockets. Be resourceful!

**Encouragement/feedback/ monitoring**

Through all phases of treatment patients should be continually given positive reinforcement and encouragement. This includes during initial therapy, active treatment and the maintenance phase(s). Often when considering the patient's response to periodontal treatment, it is the clinician's focus to highlight what remains a problem. Combined with a failure to identify positive treatment effects this can form a critical pattern and patient perception, which can be demoralising.

There is tentative evidence that psychological approaches can improve oral hygiene related behaviour[2]. One such approach is motivational interviewing[3]. Defined as a 'facilitative approach to communication that evokes natural change', it allows practitioners to maximise the motivational potential of conversations with patients. An important point to note is that the communication style and approach is more important than the length of time spent in conversation.

The underlying goal of motivational interviewing is 'to increase intrinsic motivation to change that which arises from personal goals and values rather than from such external sources as attempts to persuade, cajole, or coerce the person to change'[3].

Motivational interviewing necessitates good communication skills - asking open-ended questions, reflective listening, affirming, summarising and eliciting 'change talk' from the patient. 'Change talk' consists of statements reflecting desire, perceived ability, need, readiness, reasons or commitment to change.

The end product of such a method is establishing goals. Clinicians guide the patients in this way so that their desired outcome is achievable and realistic (Figs 1and 2). Factors to consider in this respect include the patient's dexterity regarding oral hygiene, their age➲

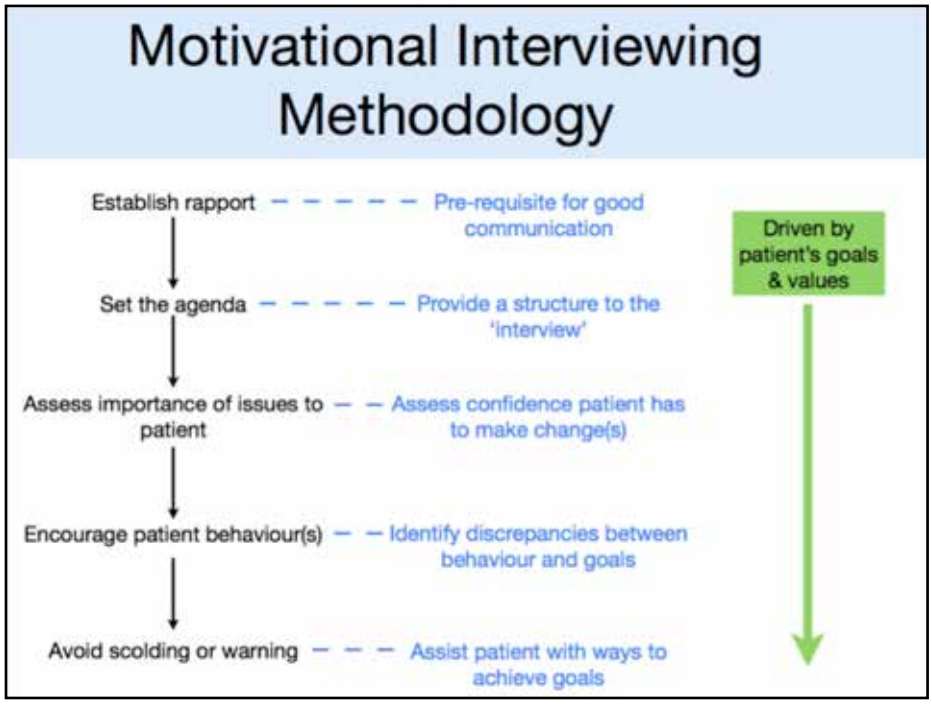



Fig 1: Motivational interviewing methodology.

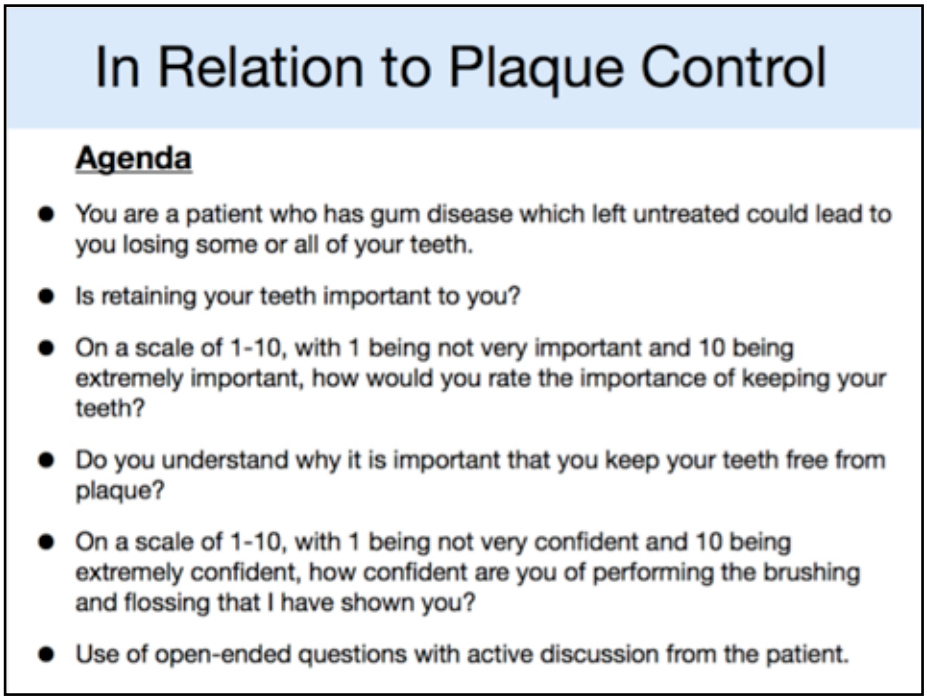



Fig 2: Motivational interviewing in relation to plaque control.

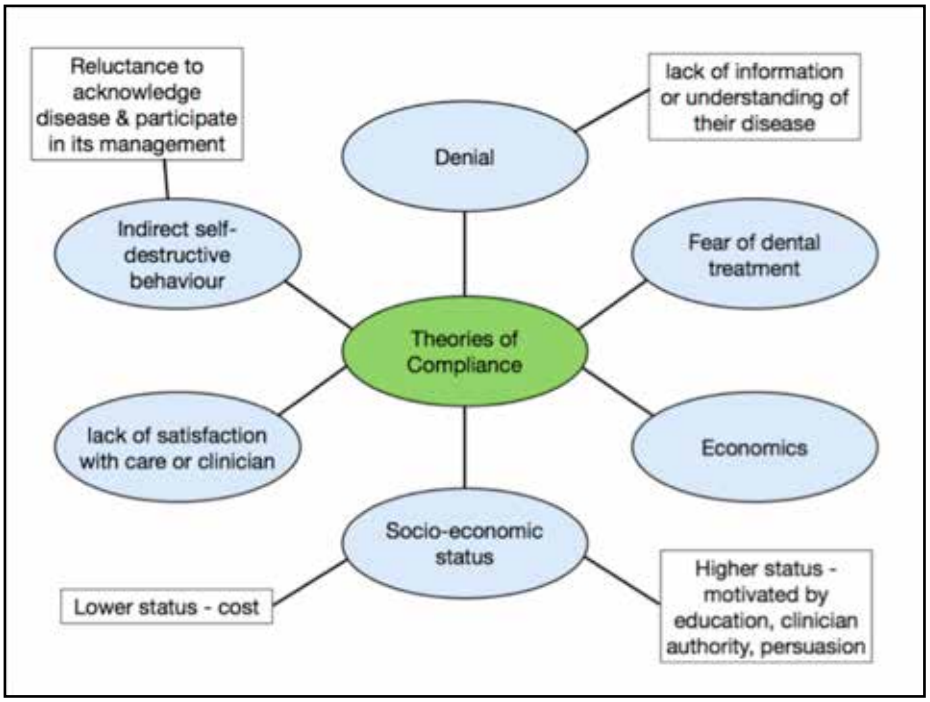



Fig 3: Theories of compliance.

and the extent and severity of the periodontal disease. Make concrete plans with the patient. For example, the retention of teeth for life/for a long time, plaque and bleeding scores below 20 per cent, a reduction in size of pocket depths and number of sites with pocketing.

For home oral hygiene regimes event-based recall may be of value.

High levels of plaque control may be unobtainable for many patients. Remember, for all cases make the goal(s) realistic. For example, the goal for these patients may be to establish a level of plaque compatible with a rate of progression of periodontal disease slow enough to ensure adequate and acceptable periodontal support.

For patients without the manual dexterity to achieve high levels of oral hygiene through mechanical biofilm disruption, chemical methods are an acceptable alternative. There is clear evidence for a reduction in the quantity and quality of plaque in the supra-gingival environment with use of certain mouthwashes. The inference is that this also applies to the sub-gingival environment [4].

Motivating patients is a continuous process, composed of recognising their needs, discovering what motivates them, setting goals, forming and executing a plan and continually providing positive reinforcement.

## Patient's responsibility

### Compliance and adherence

Despite the best efforts of practitioners, periodontal therapy will not be successful without compliance from the patient. Compliance may be defined as 'the extent to which the patient's behaviour matches the prescriber's recommendations.' Differing slightly but significantly is adherence, which is more in keeping with the collaboration-type action described above. Adherence may be defined as 'the extent to which the patient's behaviour matches the *agreed* recommendations from the prescriber' (fig 3).

Published material has highlighted the importance of home care in periodontal disease. Patients must take some responsibility in the management of their condition and the importance of home care in periodontal disease management should not be underestimated. This encompasses their 'at-home oral hygiene regime' and 'attendance for their appointments'. Patients who are encouraged to self-inspect their own plaque levels (such as disclosing tablets) are better able to monitor their own performance with regard to oral hygiene. This engagement may make a difference for adherence. Patients are responsible for being amenable to change, remembering the advice they are given and acting upon it. This will be challenging, especially if there are inconsistencies in what they are told. With good team work and communication between members of the dental team the likelihood of such inconsistencies is diminished.

The reasons for a 'failure to adhere' are broad, however a well-motivated patient is more likely to adhere to a treatment plan. Records of clinical information can be used to motivate the patient, and they also are helpful from a medico-legal point of view if problems occur. Where possible, recommended OH behaviour should be simplified, and suggestions tailored to individual needs.

## Conclusion

This manuscript identifies the multiple heterogeneous natures of the factors that should be considered to successfully manage patients with periodontal disease. It is clear that both the clinician and patient need to work in concert to achieve a successful periodontal outcome.

## Refernces

1. Needleman I, Suvan J, Moles PR, Pimlott, J. A systematic review of professional mechanical plaque removal for prevention of periodontal diseases. *J Clin Periodontol* 2005; **32** (Suppl. 6): 229-282.
2. Renz A, Ide M, Newton T, Robinson P, Smith D. Psychological interventions to improve adherence to oral hygiene instructions in adults with periodontal diseases. *Cochrane Database Syst Rev.* 2007; **2**: CD005097.
3. Miller WR, Rollnick S. *Motivational Interviewing: Preparing People for Change.* New York: Guildford Publications, 2002.
4. Ciancio SG. Chemical Agents: plaque control, calculus reduction and treatment of dentinal hypersensitivity. *Periodontol 2000*. 1995; **8** (Issue 1), 75-86.