

Oral Health Education: What lessons have we learned?

‘Despite hundreds of studies involving thousands of individuals, we know remarkably little about how best to promote oral health’. (Kay and Locker, 1997)¹

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Key Points

- Primary care dentists and their teams have a pivotal role to play in providing health education to patients in the surgery setting
- Guidance on the scientific content of the advice to be given is widely available
- However, much more support could be provided for dental care professionals on the most effective ways to provide advice to patients

Introduction

The dental team has long been encouraged by the UK Government to educate their patients in the surgery setting in order to promote good oral health, and prevent dental disease. This article defines ‘oral health education’, and reviews comments that have been made about its practice by dental care professionals (DCPs). The policy framework for oral health education is examined, and national guidance, current initiatives and suggestions for the way forward are discussed. The emphasis throughout is on the advice available to the dental team on how to support patients to change their behaviour, rather than on shifts in the scientific basis of the content of that advice.

Major improvements in the oral health of adults and children have been achieved over the past 50 years, and the role that DCPs have played in this must be acknowledged.

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However, this article is necessarily focused on what more needs to be done, and how dental teams can be better supported in their key role in patient education.

Oral health education

‘Health education’ has been defined as ‘any learning activity which aims to improve individuals’ knowledge, attitudes and skills relevant to their oral health’. ‘Oral health promotion’ by contrast has been described as ‘any process which enables individuals or communities to increase control over the determinants of their oral health’¹. It should be noted that the phrase ‘dental health education’ was commonly used during the early 1990s; later the term ‘oral health education’ was widely adopted, reflecting a greater emphasis on the health of the whole mouth. This gradual shift in terminology is reflected in the article.

Criticisms of dental and oral health education

Reviewing the history of dental health education in 1993, Towner² observed some improvements in the way it was delivered:

Table 1

Changes in dental health education

- There has been a move away from propaganda and a reliance on didactic teaching methods, towards education which stresses involvement and participation in learning experiences.
- Over the last 20 years dental health education has increasingly sought inputs from the fields of education, sociology and psychology.
- Dental health education has moved away from supplying information and towards seeking to modify attitudes and change behaviour.
- Dental health education has become more specific, and has increased the number of target groups to which it is directed.
- A major change has been that of accountability, the need to evaluate what is done at every stage.

Discussing the limitations of dental health education, Croucher³ suggested that the dominant approach has been expert led, and individually orientated, featuring persuasive, behaviour changing communication, based around the KAB (knowledge, attitudes and behaviour) concept. There have been many criticisms of this:

- Its prescriptive and expert-led nature is victim-blaming
- It can cause ill health by making people feel guilty
- It is elitist, as being expert-led it assumes that the individual has a limited amount of knowledge
- It operates separately from the people it serves, with little if any attempt to find out what they need.

Following the critiques of Towner and Croucher, two reports examined the research evidence, and some of their conclusions are shown below:

Table 2

Reviews of research evidence
<p>1996 Health Promotion Wales (HPW) review⁴</p> <ul style="list-style-type: none"> • Some studies show that health education which targets whole populations may increase inequalities in health. • Changing personal health behaviour appears to be more difficult for some groups than others; this may result in blaming the victim for not making the appropriate behaviour changes.
<p>1997 Health Education Authority (HEA) review¹</p> <ul style="list-style-type: none"> • There is no evidence of effectiveness of educative programmes aimed at caries reduction, unless fluoride agents are being used. • The evidence suggests that oral health promotion is effective in increasing knowledge levels, but there is no evidence that changes in knowledge are causally related to changes in behaviour. • Attempts to control individuals' consumption of sweet foods and drinks are generally not satisfactorily evaluated. However, when such interventions are directed at individuals, they appear to be of limited value.

The HEA report raised some serious issues: was oral health education worth investing in if increases in knowledge did not necessarily lead to changes in behaviour? Should more emphasis be placed in the future on the use of fluoride in reducing caries, and less on dietary counselling?

Blinkhorn certainly left no room for complacency, examining the reasons for the apparent failings of dental health education⁵. His analysis pointed to a failure to evaluate these activities, and anecdotal evidence suggested that initial enthusiasm for a preventive approach in the surgery faded quite quickly, with dentists tending to be disease centred rather than patient centred. Further, many dentists did not offer specific advice which patients could understand, and unrealistic goals were set for patients to

achieve. Sheiham and Watt⁶ expanded on these concerns, stating that a 'simplistic and outdated approach' had dominated dental health education for many years, failing to acknowledge the complexities of human behaviour and the broader social, economic and environmental factors determining behaviour change.

Prevention in practice

The realities of adopting a preventive approach were examined by Threlfall and colleagues, who revealed troubling shortcomings in relation to both the content and delivery of advice to patients by General Dental Practitioners (GDPs). Looking first at the messages that were conveyed⁷, the authors concluded that it was worrying to find so much variation in approach to the essential activity of preventing caries in young children. They secondly examined the factors that influenced the provision of preventive care⁸. Generally, dentists were more inclined to give advice and spend more time advising middle class parents, whom they perceived as being more motivated than parents from a lower social class. Dentists reported that they became disillusioned when people did not listen or obviously had not acted upon their advice. Almost all believed that the key to preventing caries in young children was education and the majority provided preventive advice verbally, in the form of a mini lecture. There was a lack of imagination in the delivery of preventive advice and a lack of additional materials for parents to take home. Most GDPs seemed to limit their role to being prescriptive, many seeming to model themselves on a teacher in a classroom with parents and patients as their pupils, some of whom were good, and listened attentively, and others of whom were bad and did not listen. There was little evidence of reflection about the way the GDPs delivered preventive advice.

The authors concluded that the arrival of the new dental contract provided an opportunity for change by placing prevention at the heart of dental care, but that this would be squandered unless efforts were made to improve both the content and the delivery of preventive advice. Training could be provided, both as part of the undergraduate curriculum and as part of continuing professional development, to promote a better understanding of counseling skills and educative techniques. In addition, individual GDPs needed to reflect on their own delivery of preventive care to identify ways in which it might be improved.

Commenting on the authors' papers, Hancocks noted that a picture emerges of somewhat haphazard content and delivery of 'messages' in many ways skewed by the subjective views of the individuals doing the 'educating'⁹. Hancocks suggests that some consistent guidelines, as well as effective teaching methods, should be developed. However, the question remains as to whether the dentist or other members of the dental team, with different skills, are best placed to fulfill the patient education role¹⁰.

The policy framework: national guidance

The National Institute for Clinical Excellence (NICE) dental recall guideline¹¹ put preventive advice at the heart of the 'oral health review', with the effects of oral hygiene, diet, fluoride use, tobacco and alcohol on oral health, being discussed where appropriate. However, a recommendation was made that research was therefore needed on the long-term clinical and cost effectiveness of one-to-one oral health advice and whether this might depend on:

- the frequency with which it is delivered,
- the physical or oral health of the patient,
- other characteristics of the patient (for example, age, sex, social class, occupation),
- the medium used to deliver the advice,
- who delivers the advice.

Four years later, this gap in the evidence base appears still to need filling - a serious omission.

In 2007, NICE issued guidance on changing health-related behaviours¹². The principles most relevant to one-to-one health education are summarised below.

Table 3

Changing health-related behaviours
<p>Practitioners whose work impacts on, or who wish to change people's health-related behaviour should prioritise interventions and programmes that:</p> <ul style="list-style-type: none">• Are based on the best available evidence of efficacy and cost effectiveness• Can be tailored to tackle the individual beliefs, attitudes, intentions, skills and knowledge associated with the target behaviours• Are developed in collaboration with the target population, community or group and take account of lay wisdom about barriers and change (where possible)• Are consistent with other local or national interventions and programmes (where they are based on the best available evidence)• Use key life stages or times when people are more likely to be open to change (such as pregnancy, starting or leaving school and entering or leaving the workforce)• Include provision for evaluation.

Practitioners working with individuals should select interventions that motivate and support people to:

- Understand the short, medium and longer-term consequences of their health-related behaviours, for themselves and others
- Feel positive about the benefits of health-enhancing behaviours and changing their behaviour
- Plan their changes in terms of easy steps over time
- Recognise how their social contexts and relationships may affect their behaviour, and identify and plan for situations that might undermine the changes they are trying to make
- Plan explicit 'if-then' coping strategies to prevent relapse
- Make a personal commitment to adopt health-enhancing behaviours by setting (and recording) goals to undertake clearly defined behaviours, in particular contexts, over a specified time
- Share their behaviour change goals with others.

Whilst this guidance on generic principles is welcome, it does not spell out in concrete terms how to translate these principles into practice in specific areas such as oral health. Expecting each DCP or even each dental team to do this individually without support would seem unrealistic.

Current initiatives

*Delivering Better Oral Health: An evidence-based toolkit for prevention*¹³, produced by the British Association for the Study of Community Dentistry and the Department of Health, could help meet the need for more consistent evidence based advice to be offered by dentists to their patients. The resource emphasises the 'simplicity of the messages' because 'too often in the past, there has been confusion and a lack of consistency in the preventive information offered to patients'. It goes on to advocate a two tier approach:

- All patients should be given the benefit of advice regarding their general and dental health, not just those thought to be 'at risk'.
- For those patients about whom there is greater concern (eg those with medical conditions, those with evidence of active disease and those for whom the provision of reparative care is problematic) more intensive actions are required.

However the pack does not address in any depth the issue of how advice should be best delivered, if it is to be effective. This significant gap in the professional education market apparently remains to be filled, though DCPs can refer back to Blinkhorn's 1997 guidance¹⁴ below.

Table 4

Practical advice on oral health education
<ul style="list-style-type: none">• The dental team needs to form a partnership with patients, working together to solve a health problem.• Many dentists complain that, despite their best efforts, patients do not change their behaviour and the whole health education exercise is ultimately futile. Two factors must be considered:<ul style="list-style-type: none">• Patients bring with them the oral health values current in their own community – dental care may be given a low priority.• The dental team may over-estimate the time and effort given to educating patients. Verbal interaction is often minimal and dentists talk speedily ‘at’ rather than slowly ‘to’ their patients.
<p>To be successful:</p> <ul style="list-style-type: none">• Information for patients needs to be: understandable, relevant, non-authoritarian, and given with conviction.• Try to make a specific ‘preventive diagnosis’, in the same way that you would make a clinical diagnosis, and offer only advice which is aimed at solving the dental problem under discussion.• Avoid generalist throw-away lines such as ‘brush your teeth better’. Specific advice, with an evaluation component to assess patient progress is a more sensible approach. Offer positive reinforcement when some success is achieved by the patient.• Be realistic about the amount of advice which can be given within a certain time. Aim to build up knowledge gradually.• Practical demonstrations involving the patient themselves will make education more interesting.

The way forward

Munday¹⁵ has stated that the NICE guideline on behaviour change is perspicuous and encouragingly realistic. However, with no strategic approach, and no co-ordination on behaviour change within the NHS itself or with other sectors, their application may have a limited effect. It is encouraging that NICE recommends training and support for those involved in changing people’s behaviour, in turn developing competencies for which national organisations should develop standards and skills. Advancing the skills and competencies of practitioners would augment the viability of these guidelines.

Looking slightly more broadly at oral health promotion (OHP), Richards¹⁶ further commented that the following points should be considered in any OHP activity.

- OHP as it has been practiced has increased social inequalities in oral health. It is necessary to be mindful that primary prevention is required for all social groups not only those with high need (predominantly the socially deprived).

- We need consistent, up-to-date and correct messages, cultural sensitivity and understanding and consistent evaluation of OHP activities. We must be wary of inadvertent non-verbal communication.
- Application of the NICE guideline should emphasise education and training, especially to ‘Provide training and support for those individuals involved in changing people’s health-related behaviour so that they can develop the full range of competencies required’.

Conclusion

DCPs are still awaiting detailed evidence-based guidelines on the delivery (in addition to the content) of oral health education in the surgery setting. Surprisingly little guidance emerges from the published literature; for example, Watt and Marinho’s¹⁷ review of oral health promotion’s potential to improve oral hygiene and gingival health concluded that although all the studies evaluated educational interventions, there was no clear indication that any particular type or style of educational approach was more effective than any other.

The NICE guidance¹² provides a valuable framework for planning and delivering behaviour change interventions, but does not go into the finer detail. However, in the guidance on brief interventions and referral for smoking cessation in primary care¹⁸, NICE comments that:

- Brief interventions involve opportunistic advice, discussion, negotiation or encouragement. They are commonly used in many areas of health promotion and are delivered by a range of primary and community care professionals.
- For smoking cessation, brief interventions typically take between 5 and 10 minutes and may include one or more of the following:
 - † simple opportunistic advice to stop
 - † an assessment of the patient’s commitment to quit
 - † an offer of pharmacotherapy and/or behavioural support
 - † provision of self-help material and referral to more intensive support such as the NHS Stop Smoking Services.

NICE recommends that everyone who smokes should be advised to quit, unless there are exceptional circumstances. This brief intervention acts as a ‘gateway’ to more intensive support for those who want it, so that there is a two-tier approach available to practitioners and smokers. This is consistent with the two-stage team approach to dental health education recommended by Daly, Watt, Batchelor and Treasure¹⁹, when they state that dentists should be involved in assessing their clients’ health education needs, and where appropriate, providing opportunistic advice and support. When more intensive health education support is required, dentists should be able to refer these individuals to other members of the team who have the time, resources and skills required. The production of national occupational standards for oral health promotion²⁰ may help with the

development of such skills. However, the requirement for further research as originally stated in 2004 in the NICE guideline on dental recall¹¹ remains.

DCPs could draw encouragement from the statement of the Chief Dental Officer (England)¹³ that the resource *Delivering Better Oral Health: An evidence-based toolkit for prevention* should be seen as ‘the first version of an evolving series’ designed to support evidence-based preventive dental care. However the passive dissemination of guidelines should never be regarded as sufficient in itself to secure changes in professional practice, as Newton has suggested²¹. There is a wealth of knowledge on how to promote change, whether in terms of the overall strategy to be adopted²² or the specific wording of guidelines to help them effectively alter clinical behaviour²³. In particular, Newton has suggested that the techniques of social marketing could be used, as set out by Evans²⁴, and illustrated below:

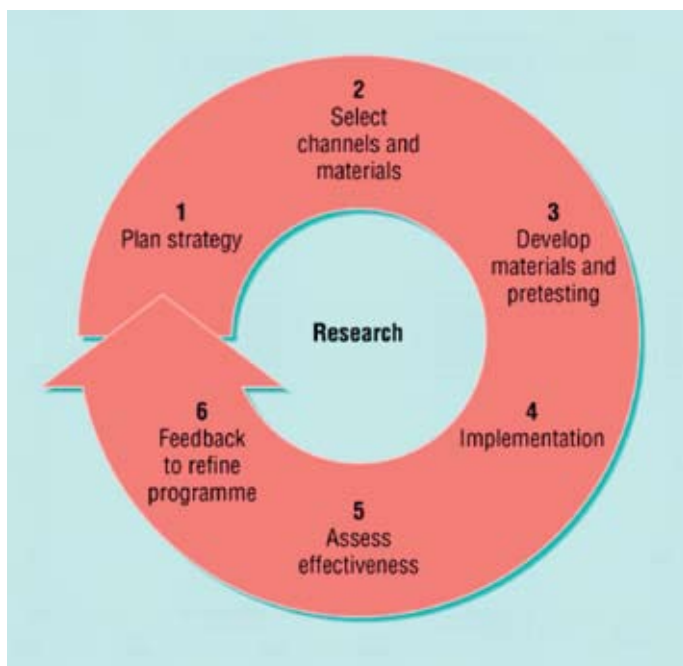


Figure 1 Social marketing wheel.

To sum up, the Department of Health rightly recognises that oral health should be considered as part of general health, and that ‘health education helps, but is not enough to make a real difference by itself’ – hence the importance of working across agencies and sectors to develop a range of complementary approaches²⁵. However, it needs to work in partnership with other professional bodies to ensure that the way health education is delivered in the dental surgery setting reaches a consistent standard – and that it is within the capability of individual primary care dentists to fully ‘ensure that their teams have the skills and knowledge to promote oral health effectively to patients’.

Supporting GDPs and their teams to help patients who may be irregular attenders, have the poorest oral health, and come from lower socio-economic groups, will need particular emphasis; GDPs have been the ‘powerhouse of patient education’ but their approach has not been structured and may have disregarded health literacy²⁶.

The importance of reducing both the prevalence of oral disease and oral health inequalities across all age groups has already been recognised²⁵.

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Acknowledgements: the generous assistance of Professor Anthony Blinkhorn, Dr Sue Gregory, Ms Polly Munday, Professor Tim Newton, Mr Jerry Read, and Professor Wayne Richards with the preparation of this article is gratefully acknowledged.

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