Continuing Education of Tobacco Use Cessation (TUC) for Dentists and Dental Hygienists

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Abstract: Tobacco use prevention (TUC) guidelines are mostly designed for undergraduate education. Most practising dental professionals have not been trained in TUC and so current and future guidelines need to be adapted for continuing education. It is important to motivate dental professionals to be involved in TUC. 'The 3 Ts' is one suggested method of stimulating this motivation. Two levels of TUC are recommended, and both brief advice and enhanced interventions can be incorporated into routine practice. It is recommended that TUC continuing education on these interventions should be provided by a team of dental and trans- disciplinary experts. The maintenance of TUC involvement can be divided in individual and collective strategies. The international dental professional organisations can provide important 'benchmarks' for minimum clinical standards and for the involvement of both national dental organisations and individual dental health professionals in TUC continuing education.

Key words: tobacco cessation, continuing education, short intervention, enhanced intervention, dentistry

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Tobacco use is identified as one of the main causes of preventable morbidity and mortality globally. If current smoking patterns persist in the world over the next 40 years, the annual number of deaths from tobacco use will increase from about three million to more than 10 million (Peto, 1994). Cancer of the lung, chronic obstructive lung disease and cardiovascular diseases are all strongly associated with cigarette smoking (Doll et al, 2004). In addition oral, pharyngeal and laryngeal cancers and periodontal diseases have been strongly linked to smoking (Franceschi et al, 1999; Norderyd et al, 1999; Tomar and Asma, 2000; Bergström, 2004). Oral health professionals have an opportunity to be instrumental in preventing tobacco-related diseases.

Most dentists agree that dentistry should be involved in tobacco cessation, but the majority are not actively involved in delivering evidence-based interventions (Geboy, 1989; Allard, 2000). Dental hygienists generally also acknowledge a professional reponsibility to advise patients regarding tobacco use (Fried and Rubinstein, 1990; Fried et al, 2004). A recent study from Sweden showed that 74-84% of patients without smoking-related symptoms were asked about their smoking habits by their dentists and dental hygienists, compared to 94% of patients showing smoking-related symptoms. Barriers to discussing tobacco use were reported as time constraints (43-34%), not considered part of role (30 -12%) and feeling uncomfortable asking people about their tobacco use (20-15%). Dental hygienists` responses were more 'positive', or less 'negative', than dentists in their attitude towards smoking cessation. More

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dental hygienists thought it was worth the effort (66 versus 48%), and not too time consuming (59 versus 43%), than their dentist colleagues. Almost all (88%) the dental personnel wanted to refer smokers to a cessation specialist. The issue of reimbursement from the health care system for tobacco cessation treatment was a common stated barrier for both dentists and dental hygienists (78-57%) (Helgason et al, 2003). These attitudes reflect similar earlier findings from the US (Hastreiter et al, 1994).

Among dental professionals lack of formal training in tobacco cessation is recognised as a barrier, but still there are only a few continuing education (CE) courses offering cessation training to the dental team (Christen, 2001). There are few reports presenting contents of past CE for clinical dental professionals on TUC.

The courses and seminars have addressed the following subjects: effects of smoking on general and oral health, effects of the use of smokeless tobacco, pharmacological and behavioural aspects of nicotine and addiction, effectiveness of a systemic approach to tobacco cessation. The programmes also included development of office procedures, how to create assessment forms and how to assess tobacco use, diagnoses, patient motivation, actions steps for smoking cessation in individual treatment plans, support and follow-up of treatment and nicotine replacement therapy. The duration of the seminars has ranged from a couple of hours to one day (Christen, 2001; Wood et al1997).

About four out of 10 dentists and dental hygienists have received formal training, and of those who had not received training, 61% were willing to be trained (Hastreiter et al, 1994). The following examples demonstrated positive results when tobacco cessation was included in CE. Studies conducted in dentistry on smoking cessation have included training of the staff before engaging patients. Training by way of personalised workshops, each between two to three hours in length, was offered in intervention studies in the US (Gordon and Severson, 2001). In the UK, dental practitioners who have attended CE courses related to recognition and diagnosis of oral lesions were invited to participate. They also received separately designed educational packs. Among patients it seemed that the compliance to attend follow-up clinics was poor. However, 11% of attendees were smoke free at nine months control (continuous abstinence and carbon monoxide-validated) (Smith et al, 1998). In another study, 90-minutes on-site training showed a statistically significant increase in tobacco cessation activities among participants (Wood et al, 1997).

Dental professionals are expected to raise the question of smoking with their patients, not least by their patients. A survey in the US found that almost 60% of smoking patients expected their dentists to ask about their habit, whereas 60% of the dental professionals thought that tobacco-using patients did not expect them to intervene (Campbell et al, 1999). There are still too few intervention studies (rando-mised controlled trials) on the outcome of smoking cessation treatment in the dental environment. However, current studies indicate positive results from training as compared to controls (Christen et al, 1984; Cohen et al, 1987; Cohen et al, 1989; Macgregor, 1996; Severson et al, 1998).

A comprehensive model for evidence-based tobacco prevention intervention in dentistry was recently published, as well as a flowchart to guide providers in how to treat patients in different 'stages of change' (Ramseier, 2003). Most educational programmes are developed and used in undergraduate education at universities and dental schools. Role expectations are formed early, mostly when the individual is still in dental hygiene or dental school, and therefore the topic should be included in all dental school curricula. However, a considerable number of dental professionals have still not been trained in tobacco prevention and cessation, and postgraduate CE will be vital to develop these skills in many dental professionals. An important issue to be addressed is how to motivate dental professionals to engage in tobacco use interventions. It is of necessity that general guidelines will be adopted to the dental arena and recognised by dental professionals as unique and integrated to the daily clinical routine.

To increase motivation it is anticipated that some 'tailoring' of these guidelines for continuing education will take place. The guidelines tuned to the dental health team (DHT) should be designed to allow for courses to be adapted to reflect national, regional or even local circumstances and resources. It is also envisaged that different members of the dental health team will have different levels of knowledge, skills and awareness in relation to TUC. Optimal training courses will allow for this by conducting pre-training assessments of the learning needs of attendees from the DHT. These assessments will be used to determine the 'level' at which the different elements (or modules) of the continuing education courses will be delivered.

Although it is mentioned elsewhere in this issue, it is worth to reinforce and recognise that there are great differences in the organisation and practice of dentistry and dental hygiene, and in societies and

cultures, across Europe – as well as many similarities.

The first European Workshop on Tobacco Prevention and Cessation for Oral Health Professionals has addressed some crucial topics in CE. This position paper is aiming to describe what is known today and what should be discussed for the future regarding CE for oral health professionals in tobacco prevention and cessation.

HOW CAN WE INVOLVE THE DENTAL TEAM IN TUC?

Aim:

To promote a culture in which members of the DHT want to be involved in TUC.

Objectives:

- Promote TUC as part of routine clinical practice within dentistry and dental hygiene
- Increase awareness of the consequences of tobacco use on oral health
- Increase knowledge about the potential benefits of TUC to the quality of treatment offered, the satisfaction of patients and the practice as a whole
- Create an expectation that TUC be implemented by members of the DHT through creation of a 'gold standard' in dentistry and dental hygiene
- Create centres of excellence to act as a resource for training and to promote good clinical practice
- Provide easy access to high quality courses
- Promote a culture where there is an expectation among patients that the DHT will intervene with them about their tobacco use.

The above may be achieved through using professional organisations and key opinion leaders (e.g. creating TUC as a core competency or mandatory activity, inclusion of TUC in conference programmes), professionals journals (TUC supplements and articles, questionnaires and case studies to promote good clinical practice) and public health campaigns (highlighting effects of tobacco use on oral health and promoting involvement of DHT in TUC). Meeting the above objectives could also be helped by ensuring that training courses are relevant, tailored to the needs of the DHT and are attractive to potential participants. Training in TUC could also be included as modules within other training/educational courses for the DHT. Free, confidential tobacco use cessation treatment could also be offered to members of the DHT who use tobacco.

Motivating the dental team to get involved in tobacco use cessation involves three key elements which we are calling 'the 3 Ts': Tension (creating a 'motivational tension' so that the dental team wants to get involved), Triggers (populating the environment of the dental team with reminders and prompts that translate that motivation into action) and Training (ensuring that the dental team has the confidence, skills and knowledge to do it effectively). This approach derives from West's p.r.i.m.e theory of motivation (see below). Practical ways in which the dental health team can be motivated to receive training in tobacco cessation are considered within these three themes, and any evidence on the effectiveness of the suggested methods is reviewed.

P.r.i.m.e theory of motivation – and what it means to our understanding of nicotine dependence (West, 2006)

The p.r.i.m.e. theory of motivation provides a description of the structure of the motivational system, plus four other related themes: focusing on the moment, neural plasticity, identity and the unstable mind. The theory is relevant to treating smokers but also to motivating health professionals to deliver tobacco use cessation treatments. Many current approaches to motivating/changing behaviour each address some of the themes described in the p.r.i.m.e. theory. However, the p.r.i.m.e. theory provides a principled basis for combining different elements to achieve maximum effect and, where resources are limited, to choosing which target elements of the motivational system to focus on in which cases.

Addiction to cigarettes involves a number of forces: a habit that is built on the rewarding effect of nicotine, an acquired drive somewhat like hunger caused by nicotine modifying the midbrain system, a need to escape from or avoid withdrawal symptoms, and social and psychological factors that promote smoking. These forces lead the smoker to give an unhealthy priority to smoking that can easily overcome their desire not to smoke. Because some of these forces are outside the smoker's control we cannot see smoking just as a matter of choice – it involves a psychological disorder of the motivational system that threatens the smoker's life because of the diseases caused by smoking, but fortunately it can be treated.

Table 1 Rationale for the 3 Ts

	Tension	Triggers	Training
Rationale:	Creating a feeling of dissatisfaction with current practice, stimulating desire to become involved in tobacco use cessation	Multiple prompts and opportunities to engage in tobacco use cessation training	High-quality relevant training that allows oral health professionals to deliver tobacco use cessation treatments and thus relieve Tension.
P.r.i.m.e. theory theme:	Identity	Focusing on the moment. Unstable mind	Neural plasticity
Action:	Promoting identification with a role for oral health professionals that includes the provision of tobacco use cessation interventions	Numerous and varied communications with the dental health team to maximise the uptake of training offered	Relevant, tailored training that facilitates oral health professionals' involvement in tobacco use cessation and corresponds with their professional self-identity

The 3 Ts model

The three Ts are a means of structuring ways of motivating the dental health team to be involved in TUC based upon themes promoted in the p.r.i.m.e. theory of motivation. All three areas need to be addressed to maximise the chances of oral health professionals becoming involved in tobacco use cessation. Achieving the aim of dental professionals delivering tobacco use cessation interventions after attending training in tobacco use cessation is built upon creating a Tension within individual health professionals, providing Triggers to engage with training courses and finally providing the relevant Training courses themselves (see Table 1).

The notion of creating Tension within oral health professionals is drawn from cognitive dissonance theory (Festinger, 1957) and postulates that, in order to relieve this tension, an individual will have to alter their behaviour or alter their attitude towards this behaviour. If a professional identity can be fostered whereby a member of the dental team is considered to be fulfilling their professional role if engaged in tobacco use cessation activities, then those not carrying out these activities will be in a state of tension. This tension is relieved by the individual either disregarding common notions of what it is to be a oral health professional, or more likely by being prepared to embark upon tobacco use cessation training in order to fulfil this role. The tension dental health professionals will be suffering will not be constant and will require numerous, repeated and varied Triggers to stimulate engagement with training courses (Fig 1). It is difficult to predict with any precision what triggers will prompt individual dental health professionals to register for tobacco use cessation training, or when (see 'focusing on the moment' and the 'unstable mind' in the p.r.i.m.e. theory of motivation). Hence dental health professionals are going to need to be exposed to a prolonged campaign of triggers in order for them to be receptive to these triggers. In addition, the effectiveness of these triggers is going to be influenced by the availability of appropriate training courses on to which oral health professionals can enrol once a trigger, or triggers, has prompted them in to action.

Strategies for creating tension in dental health professionals not trained in tobacco use cessation

The evidence on the effectiveness of a number of potential strategies for creating Tension in dental health professionals are discussed below:

- There are a number of examples of tobacco use cessation guidelines for the dental team, although there has been no evaluation of the effect of these upon the behaviour of the dental health team (American Dental Hygienists Association, 2005; Beaglehole and Watt, 2004). In fact, the publication of clinical guidelines does not guarantee changes in clinical behaviours. A review of 19 studies concluded that there was little evidence that passive dissemination alone, in this case of consensus guidelines, resulted in behaviour change among health professionals (Lomas et al, 1991).
- There is no evidence on the effectiveness of stipulating that the delivery of tobacco use cessation interventions should be a core function of dental health professionals' role. However, we can assume it would be effective as long as the initiative had broad support among the DHT.
- Public health campaigns on the risks of tobacco use to oral health could not only heighten awareness of these risks, but also raise awareness of the role the dental team may play in tobacco use cessation. Patient enquiries about tobacco use cessation could trigger action in the dental team. There is evidence from evaluations of individual campaigns on the effectiveness of such an approach - for example, the British Heart Foundation's Fatty Cigarette Campaign (see presentation at the first UK National Tobacco use Cessation Conference (UKNSCC): http://www.uknscc.org/2005_UKNSCC/presentations/betty_mcbride.html
- Presentation of tobacco use case studies could be made in professional publications. Dental health professionals would be asked to answer questions relating to tobacco use and then to compare them with optimum responses. There is no evidence available on the effectiveness of such an approach. Similarly there is no evidence on a related strategy involving simple knowledge tests about medications that help tobacco users to stop in professional publications.
- Encouragement from professional bodies for members to be involved in tobacco use cessation could take place via promotional communiqués and literature. Campaigns promoting involvement of dental professionals in tobacco use cessation could also lead to awareness amongst patients of this role, which in turn could lead to increased enquiries directed towards the dental team. Again there is no evidence as to the effectiveness of such an approach.
- There is also no evidence on the effectiveness of defining tobacco use cessation as core competency, including related modules in undergraduate training or making attendance at TUC training a requirement for renewal of professional registration.

The lack of evidence for these, and other, strategies aimed at creating a professional climate in which there is an expectation that oral health professionals be involved in TUC should not preclude their use. What it does require, however, is a thorough evaluation of the impact of implemented strategies upon the knowledge, attitudes and behaviours of oral health professionals.

Strategies for providing triggers for dental health professionals to participate in tobacco use cessation training

Enquiries from dental patients about TUC in response to public health campaigns (see above) may prove to not only create a tension within oral health professionals, but to act as a trigger to enrolling on training courses as well. Again there is no evidence for such a strategy; neither is there for a strategy that includes paying/compensating oral health professionals to attend TUC training – although this would appear to have face validity.

The direct marketing of training courses would also appear to be a valid strategy, the lack of evidence notwithstanding. This should perhaps include personal invitations to take part in training by, for example, telephone, as personalised invitations may be harder to refuse.

There is also a lack of evidence as to the effect on the behaviour of oral health professionals of prompts from professional bodies to update clinical knowledge and skills in relation to TUC.

As with the proposed strategies to create tension within oral health professionals, so these trigger strategies would require rigorous evaluation of their effects. The similarity does not end here, however; most of the approaches described so far appear to be low-cost, high-reach strategies worthy of at least some investment.

Strategies for providing tobacco use cessation training for dental health professionals

There is no evidence for providing separate training for brief advice and enhanced interventions, but no evidence for not providing two levels of training either. Such a strategy would appear to be cost-effec-

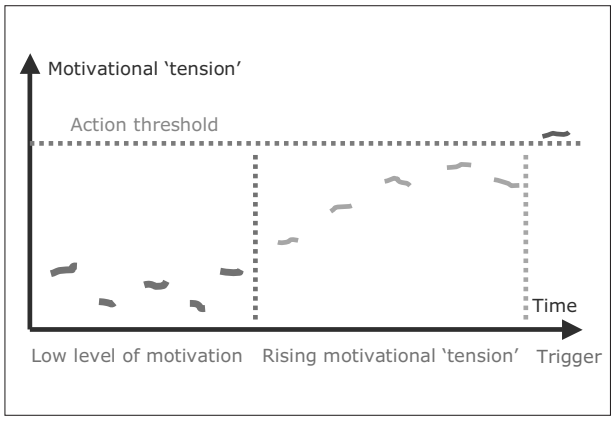

Fig 1 Motivational tension and triggers.

tive, as only those dental professionals who are willing and able to deliver enhanced TUC interventions would receive the more costly intensive training.

There is good evidence from systematic reviews (Anderson and Jane-Llopis, 2004) of the effectiveness of smoking cessation training programmes being multi-component and including elements of outreach (training in the health professional's practice) and combined educational and practice-based learning.

The provision of prompts and reminders following training appears to enhance the effectiveness of that training (Lancaster et al, 2000). There is also some evidence that prompts can be effective in increasing the rate of brief tobacco use advice from primary health care professionals (McEwen et al, 2002).

The rest of this paper deals in more detail with the provision of training in TUC for oral health professionals.

WHAT SHOULD WE INCLUDE IN TUC CONTINUING EDUCATION?

Two 'levels' of' TUC are described: brief advice and enhanced interventions. Brief advice involves asking patients about their tobacco use, advising them to stop and assisting them or referring them to specialist TUC services if available. Enhanced interventions incorporate the elements of brief advice, although the level of assistance is more intensive, plus attempts to motivate patients using tobacco to make a quit attempt both are described in more detail below. It is anticipated that both brief advice and enhanced intervention can be incorporated into routine practice.

Brief advice training

The key elements of brief tobacco use cessation advice are: (1) ask if the person uses tobacco; (2) advise them to quit; and (3) if they would like to quit assist them in doing so by providing information on medications and methods that assist smokers to stop and/or (if available) by referring them to a specialist stop-tobacco-use service. The suggested time for training is four hours minimum. The training sessions are suggested to contain following topics:

Knowledge

- Tobacco use patterns
  - o Tobacco use prevalence
  - o Tobacco use consumption
  - o Exposure to environmental tobacco smoke
  - o Beliefs about tobacco use
  - o Tobacco use cessation
- Tobacco use mortality
  - o Oral cancers
  - o Lung cancer
  - o Cardiovascular disease
  - o Chronic obstructive pulmonary disease (COPD)
  - o Other life-threatening diseases
- Tobacco use morbidity
  - o Effects on oral health and dental treatment
  - o Other non-life-threatening physical diseases linked to tobacco use
  - o Tobacco use and mental health
  - o Reproductive health
  - o Environmental tobacco smoke
- Health benefits of tobacco use cessation
  - o Oral health
  - o Lung cancer
  - o Cardiovascular disease
  - o Chronic obstructive pulmonary disease (COPD)
  - o Other life-threatening diseases
  - o Tobacco use cessation and reproductive health
  - o Tobacco use cessation and mental health
  - o Morbidity and tobacco use cessation
  - o Reported benefits of tobacco use cessation

Skills

- Assessment and recording of tobacco use status
  - o Asking about tobacco use status
  - o Recording tobacco use status
- Advising smokers to stop and assessing readiness to quit
  - o Advising patients to stop tobacco use
  - o Assessment of readiness to quit
  - o Recording advice given and responses
- Compensatory tobacco use
  - o Evidence of compensatory tobacco use
  - o Cutting down
- Reasons why stopping tobacco use can be difficult
  - o Perceived benefits of tobacco use
  - o Nicotine dependence
  - o Tobacco withdrawal syndrome
  - o Consequences of stopping tobacco use upon oral health
  - o Treatment outcomes the dental health team can expect
- Treatment to help with stopping tobacco use
  - o Principles of brief advice and other behavioural support
  - o Types of medication
  - o Nicotine replacement therapy (NRT)
  - o Bupropion
  - o Other treatments and interventions
  - o Treatment option: frequently asked questions (FAQs)
- Referral to local services
- Wider context
  - o Role of dental health professional in TUC
  - o Benefits of involvement in TUC for the dental practice
  - o How to integrate brief advice into the dental practice.

Enhanced intervention training

The key elements of enhanced tobacco use cessation interventions are: (1) ask if the person uses tobacco; (2) advise them to quit; (3) use methods to encourage TUC in patients; and (4) if they would like to quit assist them in doing so by setting a quit date with them, providing information on medications and methods that assist smokers to stop and providing some form of follow-up. The suggested time for training is two days minimum.

It is assumed that members of the DHT who wish to deliver enhanced intervention TUC are ready, willing and able to do so. Such interventions can be incorporated into routine practice but will necessarily involve more time and effort than brief advice and will probably necessitate new ways of working with patients. More intensive training would build upon the brief advice training (in other words, it is expected that the key competencies for the provision of brief advice will be addressed).

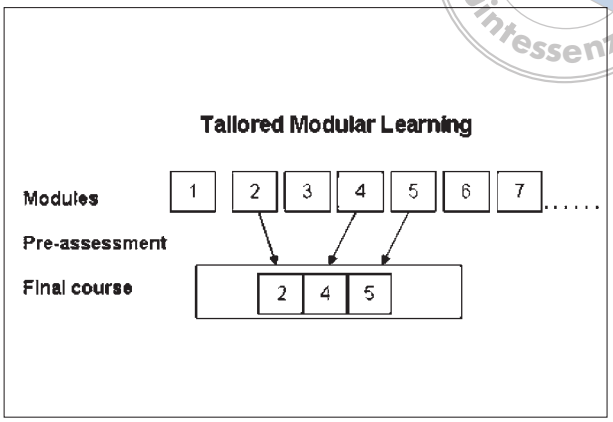

Fig 2 Principles of Tailored Modular Learning.

More intensive training can aim to be 'tailored' to participants with learning needs that can be assessed prior to attendance. In this way participants can select from a variety of proposed modules that suit their learning needs or, more likely, it will assist in determining at what intensity the modules are delivered (Fig 2). A unique 'selling point' of these courses would aim to highlight the benefit to practices of involvement in the delivery of more intensive TUC. Following topics are added to the brief advice training.

Knowledge

- Tobacco use cessation treatments and their outcome
  - o Evaluation of tobacco use cessation methods
  - o Short-term treatment outcomes
  - o Long-term treatment outcomes
  - o Relapse
- Assessment
  - o Nicotine dependence
  - o Previous quit attempts and experiences
  - o Client commitment
  - o Tobacco use patterns and history
  - o Carbon monoxide monitoring

- Pharmacotherapy
  - o NRT
  - o Bupropion
  - o Explanation of medications
  - o Supplying medications
  - o Treatment points in special populations of smokers
  - o Other medications
- Behavioural support
  - o Ways of motivating patients to attempt a quit attempt
  - o Preparation
  - o Quit date
  - o Follow-up support
  - o End of treatment and relapse prevention
  - o Recording and monitoring of interventions
  - o FAQs
- Communication skills
  - o Motivational interviewing
- Integrating tobacco use cessation into dental practice.

HOW SHOULD WE PROVIDE TUC CONTINUING EDUCATION?

It is anticipated that any TUC continuing education course would be delivered according to accepted best principles of training according to local resources. TUC continuing education course may include a combination of the following:

- Lectures
- Role play
- Problem-based learning
- Audiovisual materials
- Group work/workshops
- Observation of best practice/experts at work
- E-learning (simulators, web-based and computer-assisted learning)
- Written support materials

WHO SHOULD PROVIDE TUC CONTINUING EDUCATION?

It is anticipated that any TUC continuing education course would be provided by individuals experienced in TUC and who possess a high degree of knowledge and skills. It is also anticipated that trainers would be experienced and skilled in the delivery of training course. Trainers for courses in enhanced intervention TUC are more likely to be drawn from professions other than dentists and dental hygienists. Ideally TUC continuing education would be delivered by a team that may include one or more of the following:

- Dental experts
- Hygiene dental experts
- Tobacco use cessation experts.

Plus experts from related disciplines:

- Behavioural scientists
- Health psychologists
- Pharmacologists
- Academics
- Physicians
- Nurses.

In addition to the required knowledge of TUC and the necessary training skills, trainers should be motivated promoters of tobacco cessation. The background of the trainer is less important than their capacity to train people in the skills and knowledge necessary to assist patients in changing health behaviours (in this case tobacco use). Clinical experience of TUC and educational experience of guiding groups of health professionals through training processes are important.

HOW CAN WE MAINTAIN INVOLVEMENT OF THE DENTAL TEAM IN TUC?

Maintaining the involvement of the DHT in TUC can be divided into individual and collective strategies. Individual strategies to maintaining the involvement of the DHT in TUC may include:

- Provision of website to support practice post-training
- Telephone follow-up from trainers to offer support and supervision
- Email follow-up from trainers to offer support and supervision
- Face-to-face follow-up from trainers to offer support and supervision
- Administration of follow-up questionnaires
- Provision of update courses
- Reporting of case-studies by ‘students’ to trainers
- Providing TUC training awards (certificates, diplomas)
- Creation of TUC within other ‘accredited’ training courses for the DHT
- Written support materials.

As already mentioned in the introduction, some common barriers to involvement in tobacco use cessation activities reported by dental team members are:

- Lack of time
- Lack of reimbursement mechanisms
- Lack of confidence and skills
- Concerns over effectiveness of support
- Lack of readily accessible patient education materials
- Expected patient resistance.

In order to keep the dental team motivated, these 'barriers' need to be addressed during CE. Furthermore, CE course trainers should provide an opportunity for the expression of other perceived barriers, in order that previously unidentified barriers can be discussed and addressed.

Collective strategies involve maintaining the profile of TUC within dentistry and dental hygiene and are similar to those described in answer to the first question posed: 'How can we involve the dental team in tobacco use cessation?' Such collective strategies may include:

- Formation of tobacco policies to promote the continuation of TUC and the DHT
- Marketing of TUC within existing professional organisations
- Forging links with other health professional organisations and those organisations involved in tobacco use cessation (joint symposia, networking). The notion of 'inter-networking' between dentists and dental hygienists may be worthy of particular attention (see below).
- Conference presentations
- Mass media releases

The role of international and national dental professional organisations to support CU involvement and maintenance of TUC

There are many major dental professional organisations involved in CE of dental staff.

The World Dental Federation (FDI) consists of more than 150 member organisations comprising of 700.000 individual dentists worldwide. The FDI organises continuing education to maintain clinical and theoretical knowledge based on the latest science and research. This valuable function for the dental health professionals is delivered by way of international meetings and also support to individual member countries. The FDI has adopted a range of policy statements on different topics, tobacco or health being a prominent one. The FDI have recently issued a very clear statement that tobacco cessation should be a part of daily dental practice and included in all educational curricula (World Dental Federation, 2005).

The International Association of Dental Research (IADR) has an ad hoc committee on tobacco that organises an annual symposium and a business meeting in connection with its yearly international conference (International Dental Association for Dental Research, 2005).

The International Federation of Dental Education Associations (IFDEA) organising dental professional societies, exemplified by the American Dental Education Association (ADEA) and in Europe the Association for Dental Education in Europe (EADEE), is an important actor inn the dental arena, recruiting its members from academia with great influence on future development of the dental profession (American Dental Education Association, 2005; Association for Dental Education in Europe, 2005).

The International Federation of Dental Hygienists (IFDH) is an international umbrella organisation for all national dental hygienists associations. The stated purpose of the federation is to promote and coordinate the exchange of knowledge, increase access to quality preventive oral health care services and increase the public awareness that oral diseases are preventable with proven regimen. The American Dental Hygienists' Association is already providing TUC through its Smoking Cessation Initiative (American Dental Hygienists Association, 2005).

These international federations are recognised by national and regional organisations and can have a great impact on the global dental society. These key actors, through manuals, booklets, journals, policy statements and websites, can set standards for tobacco use cessation.

All these organisations can facilitate the implementation of TUC among DHT by the provision of lectures, seminars, symposiums and workshops facilitated by a catalogue of expert dentists and dental hygienists.

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