

# Barriers Limiting Dentists' Active Involvement in Smoking Cessation

Richard G. Watt<sup>a</sup>/Pauline McGlone<sup>a</sup>/Joanna Dykes<sup>b</sup>/Melvyn Smith<sup>c</sup>

**Purpose:** To assess the experience and attitudes of dental professionals towards smoking cessation and, in particular, to explore perceived barriers limiting their involvement in this area of practice.

**Materials and Methods:** A combined quantitative and qualitative methodology was employed in South Essex, an area in South East England. In the first phase a questionnaire survey was conducted with all general dental practitioners on the South Essex Health Authority dental list to assess their current involvement in smoking cessation and their general attitudes to this area of clinical care. In the second phase, ten focus group interviews were conducted with dental teams to uncover in greater depth views towards smoking cessation and, in particular, the barriers preventing progress.

**Results:** A 60% response rate ( $n = 149$ ) was achieved for the postal questionnaire and 52 dental team members participated in the focus groups. The questionnaire survey revealed that the majority of the sample reported asking their patients about smoking (90%) and recording this information in their clinical notes (75%). However, a relatively low number indicated active involvement in assisting smokers to stop (30%) or referring them for more detailed support (24%). The focus groups uncovered a range of fundamental barriers limiting greater involvement in smoking cessation. The key issues included a fatalistic and negative concept of prevention; perceived lack of relevance of smoking cessation to dentistry; patient hostility; and organizational factors within the practice setting.

**Conclusion:** Future action to encourage the provision of smoking cessation in dental practices needs to address the range of barriers that currently limit involvement in this area of clinical practice.

**Key words:** smoking cessation, dentists, barriers

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Smoking and other forms of tobacco use remains the most significant worldwide public health problem. Complementary strategies developed through partnerships across agencies and

sectors are more likely to achieve meaningful and sustainable results (Stationery Office, 1998). One element of tobacco control is the provision of smoking cessation advice and support in clinical settings. Evidence based guidelines have been published to guide health professionals in this area of clinical practice (Raw et al, 1998; Fiore et al, 2000).

The dental practice has been identified as a potential location for smoking cessation activity (Mecklenburg et al, 1990), and there are several reasons why this environment is an appropriate setting for smoking cessation activities. Firstly, evidence indicates that advice delivered through a dental practice is as effective as support provided by other primary care professionals (Warnakulasuriya, 2002). Secondly, dentists and their team mem-

<sup>a</sup> Department of Epidemiology and Public Health, University College London, UK.

<sup>b</sup> Department of Primary Care and Population Sciences, University College London, UK.

<sup>c</sup> Essex Public Health Network, Witham, Braintree and Halstead NHS Care Trust, Witham, Essex, UK.

**Reprint requests:** Dr Richard G. Watt, PhD, MSc, BDS, MFPH, Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK. Fax: +44 20 7813 0242. E-mail: r.watt@ucl.ac.uk

bers have access to a large proportion of the smoking population. For example, dentists routinely treat adolescents and pregnant women, two of the target populations in the UK tobacco control strategy (Stationery Office, 1998). In the UK, 67% of 13–17 year olds are registered with a general dental practitioner and the majority of these individuals attend routinely at least once per year (Mellor and Lennon, 1993), far more frequently than they attend medical practices. In addition, patterns of dental treatment often require several visits over a set period of time. This provides an opportunity for the ongoing support and monitoring of smokers' behavior. Lastly, the very early effects of tobacco use are clearly manifested in the mouth. The staining of teeth, halitosis and certain soft tissue lesions are all associated with smoking. These early signs may provide a relevant and powerful indication to people of the detrimental effects of smoking. The reversible nature of the early oral health signs and symptoms of smoking may also act as a useful motivator in cessation interventions.

However, in spite of the apparent appropriateness and value of the dental practice as a setting for smoking cessation, at present very few general dental practitioners routinely provide smoking advice for their patients (John et al, 1997; McCann et al, 2000; Allard, 2000; Warnakulasuriya, 2002). The reasons for this are not clear. A number of studies have identified certain issues. Reported barriers to providing smoking advice include time and cost pressures, concerns regarding the effectiveness of interventions, fear of losing patients, inadequate training and a lack of appropriate resources (Schroeder and Heisel, 1992; Chestnutt and Binnie, 1995; McCann et al, 2000; Warnakulasuriya, 2002). However these studies have not explored these issues in any depth and have focused mainly on the views of dentists, rather than the dental team as a whole.

Within the South Essex area in the UK several policy initiatives have been developed that aim to reduce smoking rates across the local population. To date these developments have focused particularly upon developing the skills and expertise of primary care professionals. Little attention has been given to developing the potential of primary dental care professionals. The aim of the study was to assess the experience and attitudes of dental professionals towards smoking cessation interventions and, in particular, to explore perceived barriers limiting their involvement in this area of practice.

## MATERIALS AND METHODS

To gain a comprehensive understanding of the barriers a two-phased study was undertaken. In the first phase a questionnaire survey was conducted with all general dental practitioners on the South Essex Health Authority dental list to assess their current involvement in smoking cessation and their general attitudes to this area of clinical care. In the second phase of the study, ten focus group interviews were conducted with dental teams to uncover in greater depth views towards smoking cessation and, in particular, the barriers preventing progress. The research was carried out between October 2001 and January 2002. Ethical approval for the study was given by the local Ethics Research Committee.

A self-complete questionnaire was developed and piloted with a small number of general dental practitioners working in other Health Authority areas. All general dental practitioners on the Dental List of the South Essex Health Authority were then sent a copy of the questionnaire. Two reminder letters were subsequently sent out to improve the response rate. The questionnaire data was analyzed using SPSS. Frequencies and percentages were used to determine the distribution of responses for each variable. Cross tabulations were carried out and associations tested using the chi-square test.

Ten dental practices were selected for the second phase of the study. Based upon the findings of the first phase, a stratified sampling method was employed to ensure that a diverse range of practices were selected in terms of their practice characteristics and involvement in smoking cessation activities. Each focus group consisted of between 3 and 8 members, and included dentists, dental nurses, receptionists, practice managers and hygienists. All focus groups were tape-recorded, transcribed verbatim and analyzed for emergent themes (Pope et al, 1995). The themes that represent the major categories in the data were then linked through theory to develop initial constructs. These were then tested against the data and further refined to build a reliable representation of the data.

## RESULTS

### *Phase 1 Sample*

Of the 250 dentists named on the South Essex Health Authority Dental List, 149 questionnaires

were returned in a useable state, representing a response rate of 60%. The characteristics of the study respondents are presented in Table 1.

### **Current Practices in Relation to Smoking Cessation**

Based upon the **4 As** model (Ask, Advise, Assist and Arrange) dentists were asked to indicate their level of involvement in smoking cessation activities (Table 2). A high percentage (90%) reported sometimes or always asking patients about smoking at their first visit. When asked whether they advised smokers to stop, a significant number (82%) indicated that they did this. This advice appeared to be directed particularly at patients with poor periodontal health. However, a relatively low number of respondents indicated involvement in assisting smokers to quit, or referring them for more detailed support. No significant differences were found for these responses across the sample.

### **Barriers to Giving Smoking Cessation Advice**

The barriers identified by the sample are ranked in order of importance in Table 3. Lack of time (80%), lack of resources (76%), lack of payment (73%) and inadequate knowledge on how to incorporate smoking cessation into consultations (72%) were the four highest ranked barriers.

### **Phase 2 Sample**

Ten focus groups were conducted in dental practices across the South Essex area. Each focus group con-

sisted of between 3–8 members, and in total 52 dentists, dental nurses, receptionists, practice managers and hygienists were interviewed (Table 4).

### **Exploration of Perceived Barriers**

Analysis of the qualitative data revealed a range of important issues relevant to understanding the barriers that limit greater involvement of dentists

**Table 1 Overview of phase 1 sample**

Variable	%	No.
Position in practice:		
Principal	35%	52
Partner	9%	14
Associate	50%	75
Assistant	2%	3
Vocational trainee	3%	4
Sex:		
Male	69%	103
Female	27%	41
Age:		
< 30	22%	33
30 – 39	33%	50
40 – 49	21%	32
50 – 59	18%	27
60+	2%	3
Percentage of income from private practice:		
< 20%	55%	82
> 20%	45%	63

**Table 2 Percentage of respondents involved in smoking cessation activity**

	Always	Sometimes	Never
Ask all patients on a first visit	44% (65)	46% (67)	10% (14)
Record smoking status in clinical notes	33% (48)	42% (62)	25% (37)
Advise patients at regular intervals to stop	18% (23)	64% (84)	18% (24)
Advise those with poor periodontal health to stop	67% (99)	28% (41)	5% (7)
Give support on stopping	5% (7)	25% (36)	70% (101)
Give advice on NRT	8% (11)	17% (24)	75% (108)
Refer to specialist smoking cessation service	3% (5)	21% (30)	75% (108)

**Table 3 Barriers to giving smoking cessation advice**

Potential barrier to giving smoking cessation advice	%	No.
Lack of time	80%	115
Lack of resources	76%	109
Finance-reimbursement	73%	106
Lack of knowledge of how to incorporate smoking cessation into consultations	72%	104
Patients do not want smoking cessation advice from a dentist	68%	100
Lack of confidence in ability to incorporate smoking cessation activities into consultations	58%	84
Dentists are not effective in giving smoking cessation advice	55%	79
Smoking cessation not an appropriate activity for dentists	25%	36
Damaging the dentist-patient relationship	19%	27

**Table 4 Focus group sample**

Staff	No.
Dentist	18
Practice manager	3
Hygienist	1
Dental nurse	17
Receptionist	13
Total	52

and their teams in smoking cessation activity in more detail.

### Concepts of Prevention

The majority of those interviewed expressed a fatalistic, and generally negative attitude towards disease prevention in general, and in relation to smoking cessation in particular. This view was held most strongly by the dental nurses interviewed. A sense of frustration was expressed about the ineffective nature of prevention. On several occasions respondents highlighted how patients just ignored any oral health advice given by members of the dental team.

*"The other thing is we do tend to spend a fair bit of time giving oral hygiene instruction and I just do it because I feel like it, it makes you feel obliged to, even if I thought about it and what good it was doing*

*I would probably, like 20% pay attention, the other 80% just come in and there is no difference, you clean all their teeth, sometimes you will even give them local anesthetics all round and do it over a couple of appointments, and you think that would motivate them to keep the teeth clean and that doesn't seem to."*

The perceived approach to prevention was through a prescriptive model characterized by a dominant figure 'nagging', 'preaching' or 'lecturing' patients to change their 'lifestyles'. Frequently during the interviews this theme emerged as a universal approach in prevention applicable to all patients and circumstances. In relation to smoking this prescriptive approach was very evident with many expressing a view that smoking advice simply meant "telling people to stop."

*"If somebody wants to take a leaflet, then that is it, but speaking as a smoker if somebody said to you, you know like preached to you about smoking, it just gets on your nerves, I don't mean that horrible, but you know what I am saying, don't you, people have got the choice haven't they, they either can take the leaflets or not."*

### Perceived Relevance of Smoking Cessation to Dentistry

The majority of those interviewed acknowledged that smoking had a significant impact on oral health. However, the dominant view expressed was that smoking cessation was not a relevant activity in dentistry, principally due to other competing demands. Generally a passive and reactive approach

characterized the respondents view and experience of smoking cessation. A very minor role was the limits of what was considered likely in this area of prevention. Key reasons for this were the perceived lack of skill and confidence in how to raise the topic in an appropriate fashion and the fact that it was not considered their 'business' to get involved.

*"I think you might be infringing on peoples, people are nervous when they come into a dentist, full stop, to them saying do you smoke, it will be then do you drink, do you take drugs, getting a little bit too personal, obviously this Mrs B can tell from a professional she can see exactly whether they are a smoker or not, it doesn't need to be asked."*

The two areas of clinical dental practice where smoking advice was seen to be more directly relevant were in the provision of post operative advice following extractions or other surgical procedures and periodontal treatments, principally scaling and polishing. Indeed, some expressed the view that with heavy smokers there was no point asking if they smoked as the condition of their mouths made this very obvious.

*"Really extractions is the only thing you really tell them about, smoking after, I don't think they really want to hear it, they come in and they are just like yes no smoking, they don't take any notice, they don't want to hear about smoking in the surgery, they are more worried about their teeth and they don't think smoking is a major part of it, so they shrug their shoulders and that is it."*

### **Patient Characteristics**

During many of the focus group discussions staff highlighted that a high proportion of their patients were smokers. Despite this, one of the overriding barriers frequently referred to was the perceived indifference and potential hostility patients would express if smoking issues were raised in the dental surgery. Patients who smoked were generally considered unresponsive to any smoking advice given by dentists. A strong view was expressed that dental patients were only interested in getting their dental problems solved and treatment finished. The dental surgery was seen by many as the worst place to give any smoking advice because patients were often tense and anxious to leave.

*"People they just want to come to the dentist, get their treatment done and get out the door, they want to spend as little time as possible, they don't want*

*the staff giving them lectures on smoking and everything else, they just want to get in and get out."*

Concerns were expressed that some patients would not only resent smoking advice but may become abusive and aggressive towards staff. Adolescents and pregnant women were two groups of smokers which were highlighted as being especially difficult to deal with. Teenagers were seen as being largely unresponsive to any advice given by dentists. With pregnant women who smoked a fear was expressed at how the topic of smoking could be raised without causing offence or trouble of some sort.

*"Some people take offence if you start talking about giving up smoking, you know, they say to me who do you think you are. We get people like that here, you do get some funny people, you see them stubbing them out outside the door don't you."*

### **Patient/Dentist Relationship**

A general view expressed by most of the respondents was that with new patients it was not appropriate to ask any questions in relation to smoking as this would seem both irrelevant and likely to cause offence. Only with long standing patients where trust had been developed was it considered appropriate to raise the smoking agenda. Continuity and an established professional relationship were seen to be essential requirements.

*"I think you have to approach the subject in a very sensitive manner I think, especially if you haven't known the patient that well or first new patient, sometimes there are patients you have been seeing them for 25 years and you still can't talk to them, and though there are not very many but still you cannot sort of interact."*

Concern was frequently expressed that patients would not return for their dental treatment if smoking was raised at what was considered the inappropriate time and place.

*"I don't think that is our role, and I think patients resent it, and it might be a way of losing patients from, not going there and being nagged about my smoking by her, I go there to have my teeth done, absolutely, you can hear it."*

### **Time and Costs**

Lack of time due to a heavy work load and the absence of any fee for providing smoking advice were

mentioned by several individuals as barriers preventing greater involvement in smoking cessation activity. A view was expressed that if smoking was mentioned it would inevitably result in a lengthy and detailed discussion. Brief advice was not seen as being an option.

*"Another one I thought was in this fee scale that we have, if they could include a fee for advising patients, it would encourage a lot of dentists to talk about this, even if the patients brings up the subject they would be more willing to talk about it if they know that they will get paid for it."*

### **Organizational Issues**

In the course of the interviews and through observation of the dental practices certain organizational issues were identified as important. A high staff turnover with Associates working in the practice for only a short time was not conducive to developing good rapport and continuity of care with patients. These issues were seen as being fundamental to this area of clinical practice. In addition, poor communication between staff members did not facilitate involvement in smoking cessation activity. Lastly, practical problems such as a lack of space to hold confidential conversations with patients were considered to be relevant. Outside of the actual surgery, few practices had any room to discuss a potentially private and personal issue such as smoking. A waiting room full of people was not considered an ideal place to raise this topic.

### **Team Roles**

A complex set of issues emerged when the respective roles and responsibilities of the different members of the dental team were discussed. It was evident that in several of the practices, team working had only been developed to a limited extent, with dental nurses and other members of staff performing a limited range of tasks.

Several dental nurses interviewed did not perceive themselves as having any role in smoking cessation. In their view the dentist had the sole responsibility for discussing such matters with patients. An explanation given to justify this view was the feeling that patients would not respect any advice given by an untrained dental nurse. In addition, several nurses stated that they were smokers and

therefore had "no right" to give out advice to patients. A contrasting view, expressed by a minority of dental nurses, was that because they were smokers, or had smoked in the past, they were in a good position to give advice as they would understand the difficulty in quitting and could therefore empathize with those attempting to stop. Opportunities where dental nurses could highlight smoking advice were when they gave out post-operative advice and when they escorted patients from the surgery to the reception area. Some dental nurses stressed that they often had a better relationship with patients than the dentist because patients felt more at ease with the nurse, and more open to discussing difficult issues such as smoking.

Although only one dental hygienist was interviewed, most of the other respondents identified hygienists as being in an ideal position to become involved in smoking cessation activities. The link between esthetics and smoking placed hygienists in a unique role in this area.

## **DISCUSSION**

This study has uncovered an interesting range of issues in relation to smoking cessation activity within general dental practices and, in particular the barriers hindering this area of preventive care. A satisfactory response rate (60%) from the questionnaire survey of health professionals, and the richness of the qualitative data collected provides some valuable information.

The results from the questionnaire provide encouraging evidence that a sizable number of general dental practitioners ask patients about smoking and record this information in clinical notes. However, smoking advice appears to be targeted mostly to patients with oral conditions linked to tobacco use such as periodontal disease. These results are very much in line with studies of dentists in different countries (Dolan et al, 1997; Allard, 2000; Warnakulasuriya, 2002). Indeed there is an indication that dentists are becoming increasingly aware of the need to ask patients about their smoking patterns (John et al, 2003). However, in line with other published research (Dolan et al, 1997; Allard, 2000; Warnakulasuriya, 2002), a relatively low number of respondents in this study indicated active involvement in assisting smokers to stop or referring them for more detailed support. For example, over 75% reported never giving advice to smok-

ers of the benefits of using nicotine replacement therapy or referring smokers to specialist cessation services. This is a disappointing finding since specialist cessation services have been established across the UK to accept referrals and provide detailed support to smokers wishing to quit. In addition, plans to enable dentists to prescribe NRT products will need to be supported by training initiatives to inform dental practitioners of how these products should be used.

Both the questionnaire and qualitative elements of this study identified some interesting points in relation to the barriers that limit greater involvement. Findings from the questionnaire identified that lack of time, limited supporting resources, lack of a fee, and insufficient knowledge all restrict dentists' involvement in smoking cessation activities. These findings correspond with those from other published studies (Schroeder and Heisel, 1992; Chestnutt and Binnie, 1995; McCann et al, 2000; Allard, 2000). However, the qualitative data highlighted some more fundamental issues as barriers.

The most striking and pervasive issue emerging from the focus groups was the fatalistic and narrow concept in which prevention was viewed. The vast majority of those involved in the focus groups expressed negative and frustrated views on prevention in general, and smoking cessation in particular. Many described how patients failed to follow even basic oral hygiene advice and therefore would not "listen" to advice on smoking from a dentist. The dominant approach in which preventive action was conceived was very much in terms of a prescriptive style. This involved the dentists 'lecturing' or 'nagging' patients to stop smoking, mostly through the provision of factual information. This very limited and negative view of prevention had a very powerful influence on the overall perception of how those interviewed considered smoking cessation. The general view was that smoking cessation was not relevant to dentistry due to the inappropriate nature of the setting and the perceived negative response of patients. A recent study assessing the role of primary health care professionals in oral cancer prevention also identified a fatalistic and skeptical view of prevention amongst Scottish doctors and dentists (Macpherson et al, 2003).

Professional guidelines recommend that a smoking history should be recorded for all new patients and that this information needs to be updated on a regular basis (Raw et al, 1998). In this study, such an approach was considered by many as being det-

rimental to developing a good patient-dentist relationship. Only once an established rapport had been developed with a patient was it considered appropriate to give smoking issues. Indeed the dental surgery was considered by many to be the worst place to raise smoking advice as patients were often very tense and nervous, and only interested in getting their dental problems solved. Patient disinterest and potential hostility was seen as a major issue. This is in contrast to findings from a Canadian study which highlighted that many smokers who attend dentists expect to receive smoking advice in the dental setting. A recent Australian study reported that although most patients expected dentists to ask about their smoking status, a low proportion of the smokers questioned felt that advice from a dentist would help them to quit (Rikard-Bell et al, 2003). A qualitative study assessing patients' perceptions of doctors' advice to quit smoking identified that smokers often shrugged off the advice, felt guilty and became annoyed (Butler et al, 1998). Interventions that patients found acceptable took account of their receptiveness, were conveyed in a respectful tone, avoided preaching, showed support and caring and attempted to understand them as a unique individual. Other research has demonstrated the importance of a caring and sustained patient doctor relationship on the acceptability of lifestyle advice from health professionals (Stott and Pill, 1990).

In addition, the interview data identified certain organizational issues as barriers. Time and cost concerns were highlighted in both the questionnaire and interview data. It is commonly perceived by dentists that giving smoking advice will take a considerable amount of time. This is perhaps linked to their perception of preventive advice and the confrontational style used with patients. However, evidence from a US intervention study suggests that brief advice from dentists took only 1.7 minutes and 6.7 minutes when the value of NRT products was discussed (Cohen et al, 1989). Linked to fears over time is the concern that no reimbursement is offered to dentists to provide smoking advice. Reimbursement mechanisms can certainly be a powerful influence over clinical practices. However, evidence from a pilot payment scheme aimed at increasing UK doctors involvement in smoking cessation showed that receiving payments altered the way in which doctors recorded patients' smoking status but did not significantly increase advice levels to smokers (Coleman et al, 2001). With smoking ces-

sation it has often been argued that a team approach is the most appropriate way forward (Christen et al, 1990). The findings from this study indicate that even when a range of individuals are working together in a clinical setting, a team approach may not be well developed. Poor communication between staff, high staff turnover, a lack of confidence amongst junior staff and poorly defined roles all appeared to hinder the development of a team approach in smoking cessation.

This study has uncovered some interesting findings in relation to the barriers hindering dental professionals' involvement in smoking cessation. Future training should address dental professionals' understanding of contemporary preventive approaches and the skills required to support behavior change. Training initiatives also need to develop a team approach in which the potential roles of different members of the dental team are more fully utilized. Resources tailored to the needs of dental patients are required for highlighting the range of benefits associated with quitting, and the support offered within the dental practice and elsewhere. In addition, economic incentives for dentists may facilitate greater progress with this important activity.

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