

# Tobacco-Use Cessation Programs and Policies at the University of Manitoba's Faculty of Dentistry

• Shirley C. Gelskey, MPH, PhD •

## A b s t r a c t

*The deleterious effects of tobacco use on general health and oral health are well documented. While one-third of Manitobans are current smokers, up to 79% report they want to quit. Counselling by health care professionals can help achieve quit rates of 15-20%. Yet many health professionals do not provide tobacco-use cessation counselling because they feel they are not trained to do so. In 1998, the faculty of dentistry of the University of Manitoba implemented a number of tobacco-use cessation interventions in its undergraduate curricula and general teaching clinic. The faculty has also successfully obtained the inclusion of a dental fee code for tobacco-use cessation services in the provincial fee guide and has received approval to allow dentists who have completed an approved course in tobacco-use cessation training to prescribe bupropion HCl (Zyban), in consultation with a patient's physician, to aid smoking cessation.*

**MeSH Key Words:** curriculum; schools, dental; tobacco use cessation

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Tobacco use is the chief avoidable cause of illness and death in North America and is a known cause of cancer, heart disease, stroke, and chronic obstructive pulmonary disease.<sup>1</sup> It is also associated with an increase in the prevalence and severity of periodontitis<sup>2,3</sup> and an increase in risk for oral cancer and edentulism.<sup>4-6</sup> A 1990 survey of Manitobans aged 18-74 ( $n = 754,664$ ) indicated that while one-third were current smokers, 79% wanted to quit.<sup>7</sup> By delivering a strong 2- to 3-minute cessation message to smokers as part of routine care, health professionals can achieve quit rates of 15-20%,<sup>8,9</sup> 3 to 5 times higher than the spontaneous quit rate.<sup>10</sup> However, many health professionals report they do not provide cessation counselling because they lack training and knowledge of how to integrate cessation counselling in their practice.<sup>11,12</sup> Practising dentists know that advice about tobacco use should be given during dental appointments and indicate a desire to receive cessation training.<sup>13</sup> Collectively, the above-referenced studies not only highlight the impact of tobacco use on health and the role of oral health professionals in tobacco-use cessation, but also illustrate the need for appropriate cessation training of dental professionals entering practice as well as those currently in practice.

Based on this evidence, the faculty of dentistry of the University of Manitoba initiated a number of integrated tobacco-use cessation interventions in the fall of 1998. These interventions included:

1. incorporation of formal tobacco-use cessation training into the dental and dental hygiene curricula;
2. establishment of a systematic tobacco-use cessation clinic protocol for the general teaching clinic;
3. implementation of a referral program to the faculty's Freedom From Smoking Clinics;
4. creation of a resource centre to provide educational self-help cessation materials for dental practices and consultation on how to implement a tobacco-use cessation program in the dental office;
5. delivery of a continuing education course entitled "How to Help Your Patients Be Tobacco Free"; and
6. evaluation of the effectiveness of these combined interventions and their impact on the extent of student tobacco-use cessation counselling in the clinic.

### Undergraduate Curriculum

The committee on curriculum in dentistry approved the incorporation of tobacco-use cessation training in the dental curriculum in 1998. Within the second-year course "Introduction to Comprehensive Care," dental students participate in a 3-hour training workshop as do the first-year dental hygiene students. The goal of the workshop is to ensure that all clinicians are knowledgeable, skilled and committed to

providing scientifically sound clinical tobacco-use cessation intervention. (In the first year of the program, we trained all second-, third- and fourth-year dental students and both first- and second-year dental hygiene students.)

### **Workshop Objectives**

At the completion of the training session, the student will:

- understand general and oral health consequences of tobacco use;
- have a basic understanding of the biological mechanisms of action of tobacco use on oral health;
- be aware of the physical, psychological and social factors involved in tobacco use;
- be able to describe the role of the dental professional in tobacco-use cessation;
- understand the “stages of change” model and apply it in patient counselling;
- understand the role of pharmacologic interventions including nicotine replacement therapy (NRT) (patch and gum) as well as bupropion HCl (Zyban);
- be aware of referral mechanisms to community smoking cessation resources which offer intensive individual and group tobacco cessation counselling services;
- be prepared to carry out the faculty’s tobacco-use cessation clinic protocol;
- be prepared to design and implement a tobacco-use cessation program in their future dental practices.

### **Workshop Content**

The workshop covers the following topics:

- the prevalence of tobacco use, direct and indirect public health costs;
- general health consequences of tobacco use;
- oral health consequences of tobacco use;
- why people smoke and why they quit;
- nicotine addiction, what it is, what are its physical effects, withdrawal;
- stages of change model and the readiness to quit process;
- counselling (ask, advise, assist, arrange), self-help material, referral concepts;
- pharmacological interventions, NRT, non-NRT, indications/contraindications;
- faculty clinic protocol — tobacco-use cessation program;
- practical cessation program for the dental practice.

### **Workshop Evaluation**

The students were tested before and after the workshop. The results indicated that their understanding of tobacco and its effects on general and oral health increased as a result of the workshop, as did their knowledge of the addictive nature of nicotine, the physical, psychological and social impediments

to quitting, the stages of change involved in quitting, and their role in advising and assisting patients to quit smoking.

### **Faculty Teaching Clinic Protocol**

Smoking cessation counselling is considered a standard of practice for clinical health disciplines.<sup>14</sup> The *Smoking Cessation: Clinical Practice Guidelines*, prepared by the Agency for Health Policy and Research and the Centers for Disease Control and Prevention in the United States<sup>15</sup> recommend that health care administrators devise policies, provide resources and display leadership in fostering smoking cessation efforts within every health care facility. As a community health centre providing oral health care to the public, the faculty implemented these recommendations by initiating a tobacco-use cessation program for its general teaching clinic.

Clinic administrators began by revising the faculty’s medical history form to include specific questions designed to record patients’ tobacco-use status. When patients are screened in the oral diagnosis clinic, their tobacco-use status is identified on their chart using coloured stickers to indicate either non-tobacco use (white sticker) or tobacco use (black sticker). The stickers alert all providers to give appropriate advice and counselling to tobacco users. Because of the role of tobacco use on the progression of periodontal diseases and its negative influence on the outcome of periodontal therapy, the clinical forms used by undergraduate periodontics students were also revised to gather more specific tobacco-use information, including frequency and duration of tobacco exposure and readiness to quit. These forms prompt students to recognize tobacco use as a contributing factor in a patient’s periodontal condition and to incorporate cessation counselling in the periodontal treatment plan. The form also provides a record of the patient’s level of readiness to quit, the specific advice and self-help materials given by the student and whether referral to more intensive tobacco counselling was recommended. Within the general clinic there is a designated centre which contains a wide range of individualized tobacco-use cessation self-help materials and information about NRT and non-NRT as well as videos that patients can borrow.

### **Referral Program**

Patients attending the faculty’s general teaching clinic who indicate they are ready to quit are given individualized tobacco-use cessation self-help educational materials along with directed counselling by a student. For patients who wish to have more intensive counselling, students may make referrals to the faculty’s Freedom From Smoking Clinics. These clinics offer a group approach using behaviour modification to help individuals stop tobacco use. Through a series of 8 evening sessions lasting 2 hours each, participants develop an individual plan of action to quit smoking. Information is provided about NRT and non-NRT. The program also emphasizes stress management, relaxation techniques, healthy eating practices and other positive lifestyle changes. It establishes a “buddy system” for participants. The cost of the program is approximately \$130 and includes the cost of the

materials, help from a facilitator, and tobacco-use cessation counselling by a nurse who is contracted by the faculty and trained by the Manitoba Lung Association. The sessions are held in a seminar room at the faculty throughout the year. Practising dentists in the province may also refer their patients to the faculty's Freedom From Smoking Clinics. Many internal and external referrals have been made to the program over the past 2 years.

### Resource Centre

The faculty acts as a resource centre for oral health professionals in the province who request tobacco-use cessation self-help educational materials for patients or for scientific literature related to tobacco and oral health. The faculty also provides direct consultation to practitioners about how to implement a tobacco-use cessation program in a dental practice.



Dr. Gelskey providing tobacco-use cessation materials at the January 2001 Manitoba Dental Association annual meeting.

### Continuing Education

The faculty launched its tobacco-use cessation programs in August 1998 with a 2-day conference titled "How to Help Your Patients Be Tobacco Free." Dr. Robert Mecklenberg of the U.S. National Cancer Institute was the speaker. Over 350 health care practitioners attended the session including physicians, dentists, nurses, dental hygienists and assistants, pharmacists and respiratory therapists. The faculty is planning a tobacco-use cessation continuing education course in the spring of 2001.

### Evaluation of the Faculty Interventions

Prior to initiating the tobacco-use cessation interventions at the faculty, a baseline assessment was completed to determine the extent to which tobacco-use cessation counselling was being done by students and staff. Charts for all adults seen in the dental clinic during the 1997-1998 academic year were reviewed and patient smoking status determined. Those who reported tobacco use were contacted and asked in a structured telephone interview whether, while attending the faculty's clinic, they had been advised of the potential oral health consequences of smoking and whether they were informed of the

need to quit smoking. In the fall of 1998, following this baseline assessment, the faculty introduced its tobacco initiatives. To determine whether tobacco-use counselling activity increased as a result of the faculty's interventions, the charts of all adult patients seen during 1999-2000 were reviewed and patient tobacco status determined. The same structured telephone interviews were once more completed. The data are currently under analysis and will be reported with the baseline results in a future publication.

### Policy Considerations

In 1999, the faculty submitted a proposal to the Manitoba Dental Association (MDA) requesting the initiation of a dental service fee code for tobacco-use cessation services. The proposal was approved by the MDA and submitted to the Canadian Dental Association for consideration. CDA recently initiated the fee code and it is now in the MDA fee guide.

The faculty was also successful in receiving approval from the MDA in conjunction with the College of Physicians and Surgeons of Manitoba and the Manitoba Pharmaceutical Association to allow dentists who have completed an approved course in tobacco-use cessation training to prescribe bupropion HCl (Zyban) to help their patients quit tobacco use. Dentists who prescribe Zyban will do so in consultation with the patient's physician who is most aware of the patient's general health status. ♦

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### References

1. Cigarette smoking-attributable mortality and years of potential life lost — United States, 1990. *MMWR Morb Mortal Wkly Rep* 1993; 42(33):645-9.
2. Gelskey SC, Young TK, Singer DL. Factors associated with adult periodontitis in a dental teaching clinic population. *Community Dent Oral Epidemiol* 1998; 26(4):226-32.
3. Locker D, Leake JL. Risk indicators and risk markers for periodontal disease experience in older adults living independently in Ontario, Canada. *J Dent Res* 1993; 72(1):9-17.
4. Department of Health and Human Services. The health benefits of smoking cessation. Rockville, Maryland; 1990. DHHS publication no (CDC) 90-8416. p. 147-52.
5. O'Keefe J, Lessio A, Kassirer B. A pilot smoking cessation program involving dental offices in the borough of East York, Ontario: an initial evaluation. *J Can Dent Assoc* 1995; 61(1):65-7.
6. Osterberg T, Mellstrom D. Tobacco smoking: a major risk factor for loss of teeth in three 70-year-old cohorts. *Community Dent Oral Epidemiol* 1986; 14(6):367-70.
7. Young TK, Gelskey DE, MacDonald SM, Hook E, Hamilton S. The Manitoba Heart Health Survey: Technical Report. Department of Community Health Sciences, Faculty of Medicine, University of Ottawa; 1991. p. 45-9.

8. Cohen SJ, Stookey GK, Katz BP, Drook CA, Smith M. Encouraging primary care physicians to help smokers quit: a randomized controlled trial. *Ann Intern Med* 1989; 110(8):648-52.
9. Gilbert JR, Wilson DM, Singer J, Lindsay EA, Willms DG, Best JA and other. A family physician smoking cessation program: an evaluation of the role of follow up visits. *Am J Prev Med* 1992; 8(2):91-5.
10. Little SJ, Stevens VJ. Dental hygiene's role in reducing tobacco use. A literature review and recommendations for action. *J Dent Hyg* 1991; 65(7):346-50.
11. Geboy MJ. Dentists' involvement in smoking cessation counselling: a review and analysis. *JADA* 118(1):79-83.
12. Cummings KM, Giovino G, Sciandra R, Koenigsberg M, Emont SL. Physician advice to quit smoking: who gets it and who doesn't? *Am J Prev Med* 1987; 3(2):69-75.
13. Secker-Walker RH, Hill HC, Solomon LJ, Flynn BS. Smoking cessation practices in dental offices. *J Public Health Dent* 1987; 47(1):10-20.
14. Kottke TE, Solberg LI, Brekke ML, Conn SA, Maxwell P, Brekke MJ. A controlled trial to integrate smoking cessation advice into primary care practice: Doctors Helping Smokers, Round III. *J Fam Pract* 1992; 34(6):701-8.
15. Fiore MC, Biley WC, Cohen SJ. Smoking Cessation. Clinical Practice Guidelines. No. 18. Rockville MD: US Dept of Health and Human Services, a Public Health Service, Agency for Health Care Policy and Research. AHCPR Publication No. 96-0692. 1996.