

Tobacco cessation counselling among dental hygienists in Quebec

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ABSTRACT

Quebec Order of Dental Hygienists, *L'Ordre des hygiénistes dentaires du Québec* (OHDQ), undertook a program of activities, from 2004 to 2007, to motivate its members to integrate smoking cessation counselling into their daily practice. Specifically, OHDQ gave presentations and interactive training sessions, published articles in their professional journal, and made public their position on smoking during the "World No Tobacco Day". The overall goal was to build capacity among dental hygienists to conduct cessation interventions by sensitizing them to their role in regard to counselling, by providing information about cessation counselling and pharmacotherapy, and by informing them about resources available in the community to help smokers quit.

In spring 2005, a survey was conducted in a random sample of 500 dental hygienists to identify their counselling practices and beliefs, barriers that they perceive in providing counselling, as well as the kinds of help they would prefer in order to help them better intervene with smokers (training, documentation for smokers, practice aids). The data provided baseline information so that trends in counselling practices could be monitored over time, and adjustments be made to training interventions of dental hygienists. The response proportion was 70 per cent. The data suggested that the counselling practices of dental hygienists were not optimal—only 26 per cent assessed if smokers were ready to quit, and 25 per cent discussed strategies to quit with smokers preparing to quit. Although dental hygienists believe that they should intervene with smokers, they feel that they do not have the skills to intervene effectively. The challenge for OHDQ is to develop activities for dental hygienists that will increase their skill levels and their self perceived competence to provide effective cessation counselling.

RÉSUMÉ

L'Ordre des hygiénistes dentaires du Québec (OHDQ) a mené, entre 2004 et 2007, un programme qui avait pour objet d'inciter ses membres à intégrer dans leur pratique le counselling sur l'abandon du tabagisme. L'OHDQ a offert des conférences et des séances de formation interactive, publié des articles dans son journal professionnel et pris position publiquement lors de la « Journée Mondiale sans tabac ». Ces activités avaient pour objet d'habiliter les hygiénistes dentaires à intervenir auprès des fumeurs, en les sensibilisant au rôle qu'elles peuvent jouer et en les informant sur le counselling, sur la pharmacothérapie pertinente et sur les ressources communautaires disponibles pour aider les fumeurs à cesser de fumer.

Au printemps 2005, une étude randomisée était menée auprès de 500 hygiénistes afin de définir leurs pratiques et leurs croyances en matière de counselling, les obstacles à surmonter ainsi que la sorte d'aide qu'elles souhaiteraient avoir pour mieux intervenir auprès des fumeurs (formation, documentation pour les fumeurs, outils d'aide à la pratique). Les données recueillies permettront de suivre l'évolution des pratiques de counselling et de rajuster la formation des hygiénistes dentaires. Le taux de réponse fut de 70 %. Les données suggèrent que les pratiques de counselling n'étaient pas optimales : seulement 26 % des hygiénistes évaluaient si les fumeurs étaient prêts à cesser de fumer et 25 % discutaient de stratégies avec les fumeurs qui s'y préparaient. Si elles estimaient qu'elles devaient intervenir auprès des fumeurs, les hygiénistes dentaires jugèrent cependant qu'elles n'avaient pas la compétence suffisante pour agir avec efficacité. L'OHDQ a donc le défi de mettre au point des activités qui accroîtront les capacités des hygiénistes dentaires et rehausseront ainsi leur sentiment de compétence et d'efficacité en matière de counselling sur l'abandon du tabagisme.

Key words: tobacco cessation, smoking cessation, dental hygienists, counselling

INTRODUCTION

Every day, about twenty-five Quebec residents die from tobacco-related diseases (amounting to nearly 10,000 per year).¹ Although the prevalence of tobacco use has declined in the past decade, approximately 1.6 million Quebec residents continue to smoke.² Since 2003, the Quebec Ministry of Health and Social Services, *ministère de la Santé et des Services sociaux du Québec* (MSSS) has funded various initiatives as part of its Quebec Plan for Smoking Cessation, *Plan québécois d'abandon du tabagisme*³. The objective of the plan is to motivate smokers to quit and to support them in the process. To accomplish this, a wide range of free services have been made available gradually across the province, including a telephone help line, a web site dedicated to helping smokers quit, and counselling services offered in more than 160 smoking cessation centres across the province.

In 2004, MSSS mandated the Quebec Public Health Institute, *L'Institut national de santé publique du Québec* (INSPQ) to develop a project in partnership with six professional associations in Quebec – le *Collège des médecins* (College of

Physicians), *l'Ordre des pharmaciens* (Order of Pharmacists), *l'Ordre des dentistes* (Order of Dentists), *l'Ordre des hygiénistes dentaires* (Order of Dental Hygienists), *l'Ordre des infirmiers et infirmières* (Order of Nurses), and *l'Ordre professionnel des inhalothérapeutes* (Order of Respiratory Therapists). The aim was to help these organizations encourage their membership to become more actively involved in cessation counselling. Nearly 75 per cent of residents of Quebec visit a health professional at least once a year, representing an important opportunity to help smokers decide to quit and support them during the process of quitting.

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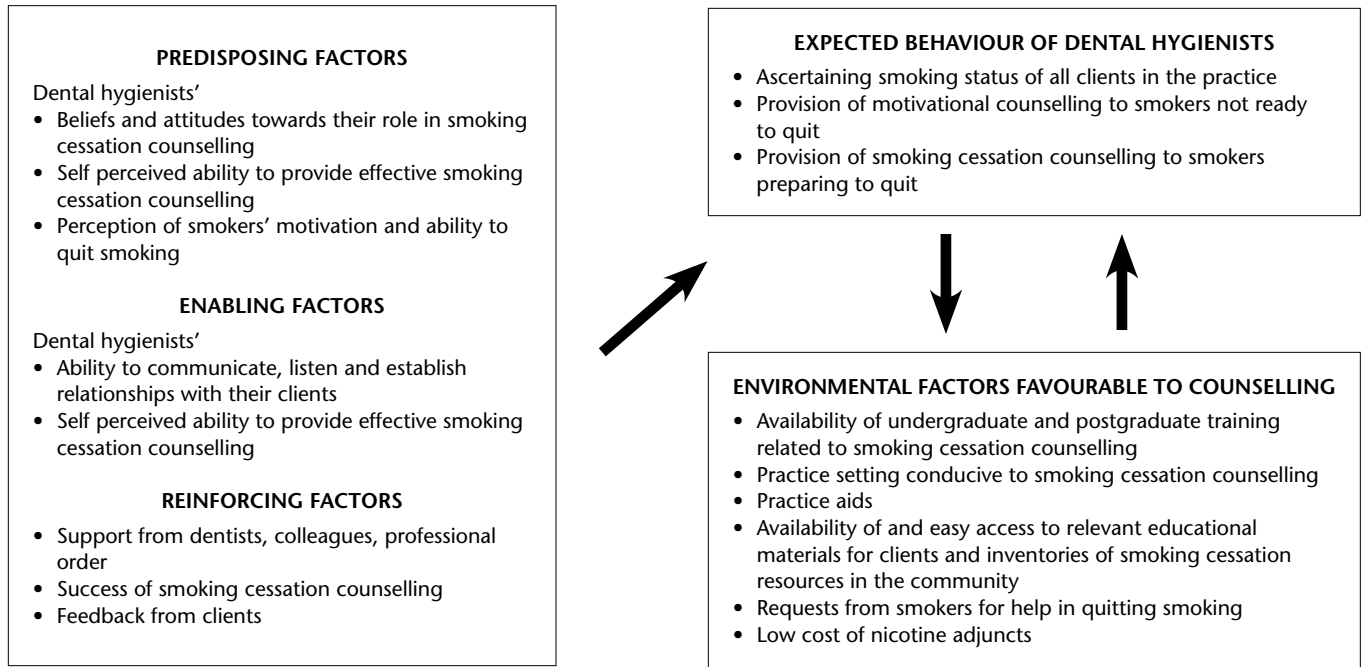


Figure 1: Theoretical model

Preparatory work with OHDQ involved two steps. First, a literature review was conducted to identify effective interventions to improve cessation counselling practices among dental hygienists.⁴⁻⁷ Second, a meeting was held with the president of the OHDQ in 2004 to explore interest within the organization in developing activities geared for dental hygienists. OHDQ committed to the project enthusiastically, and in the fall of 2004, the first intervention for dental hygienists was launched. In 2004-2005, OHDQ included approximately 4,000 members who were mainly women (98%), and whose mean age was 31 years.

To address the lack of empirical information on cessation counselling practices among dental hygienists in Quebec, the authors surveyed a random sample of active licensed dental hygienists in the spring of 2005. The aim was to identify current practices and beliefs related to their role with smokers, to describe the barriers that they perceive in providing counselling, and to describe their level of interest in improving their knowledge on cessation counselling. They were also asked about the types of assistance that they would prefer in order to improve their counselling practices (training, documentation for smokers, practice aids).

The objective of this article is to describe the interventions that were developed and implemented by OHDQ for its members between 2004 and 2007, and to present the main findings of the 2005 survey. All activities, with one exception, were implemented after the survey was conducted.

DESCRIPTION OF INTERVENTIONS

The choice of interventions to develop and to implement was based on the literature describing past experiences in training health professionals to provide cessation counselling in Quebec and elsewhere.^{8,9} The theoretical underpinnings of the project were based on the “Precede-

Proceed” model which the authors used previously in a five-year project to optimize the cessation practices of general practitioners in Montreal.⁹ Figure 1 illustrates an adaptation of this model for this project.

Since the project inception in the fall of 2004, four types of activities of varied intensity, including presentations, interactive training sessions, publication of articles, and the release of a public position statement have been implemented. The goals of these activities were to sensitize dental hygienists to the importance of their role with smokers, to transmit knowledge on counselling and pharmacotherapy for smoking cessation, and to identify community resources available to help smokers quit.

OHDQ devoted most of the articles in its October 2004 issue of *l’Explorateur* to tobacco-related issues.¹⁰ The articles covered oral diseases associated with tobacco, smoking cessation counselling, pharmacotherapy and community resources available for smokers. In addition, the president of OHDQ authored an editorial in *l’Explorateur* to explain the rationale behind such emphasis on tobacco addiction, and invited her colleagues to attend a three-hour presentation on the topic at OHDQ’s conference three weeks later. Based on data from the survey conducted six months later, approximately 75 per cent of dental hygienists in Quebec had read the issue on tobacco addiction (data not shown).

As part of the World Health Organization’s *World No Tobacco Day* which in 2005, focused on the role of health professionals against smoking, a press conference was planned for 31 May 2005 involving MSSS, INSPQ and five professional organizations including OHDQ. However, the event was cancelled because of a conflict of schedules; MSSS and INSPQ had to attend a hearing on a planned tobacco bill in the Quebec National Assembly. However, OHDQ issued a press release entitled “*Les hygiénistes dentaires répondent à l’appel*” (Dental Hygienists Heed the Call), indicating their commitment in the fight against tobacco addiction.¹¹

In 2005, a three-hour interactive workshop on smoking cessation counselling was developed by a well-known dental hygienist and former president of OHDQ. The workshop, advertised in *l'Explorateur* and in *Le mot d'Ordre*, (two OHDQ publications) as well as on the OHDQ web site, was offered on eight occasions in 2006, with a total of 120 attendees benefitting. Its content included a description of the effects of tobacco on oral and dental health, and an explanation on how dental hygienists can play a frontline role with smokers. Using clinical vignettes of dental clients who smoke, the presenter also described the counselling process for smokers not motivated to quit, and for those actively preparing to quit. As well, community resources to which smokers could be referred were enumerated. OHDQ adapted the 3-hour workshop to a 1-hour training session because of low attendance, and incorporated this into five training sessions on periodontitis, a very topical issue among dental hygienists. In 2007, 367 dental hygienists attended these five sessions in Quebec.

Two articles were published in *l'Explorateur* in April 2006 and April 2007 entitled "*Comment discuter de renoncement au tabac avec un fumeur*" (How to discuss quitting smoking with a smoker)¹² and "*Le counselling en abandon du tabac: Qu'en pensent les hygiénistes dentaires du Québec?*" (Smoking cessation counselling: What do Quebec dental hygienists think?).¹³ The first article described conversations between a dental hygienist and three smokers at various stages of motivation to quit. The second article, accompanied by an editorial comment from the president of OHDQ strongly urging members to conduct interventions with their clients who smoke, presented the main findings of the survey of dental hygienists conducted in 2005.

COUNSELLING PRACTICES AMONG DENTAL HYGIENISTS METHODS

In May 2005, the authors conducted a survey in a simple random sample of 500 members of OHDQ, selected from their 2004 database, in order to study their current smoking cessation counselling practices

A self administered questionnaire with 143 items, based on previous research, was adapted to the clinical context of dental hygienists.^{9,14} It was pretested by ten OHDQ members for readability and ease of completion, and then modified to take their comments into account. The questionnaire, available bilingually, was mailed by OHDQ in May 2005. It was accompanied by a cover letter signed by the president of OHDQ and an INSPQ researcher responsible for the study. Two subsequent mailings were completed in June and July 2005 to non respondents. Eligibility criteria included that respondents had engaged in clinical practice during the year preceding the survey. This information was obtained from the questionnaire. Approval by the Ethics Committee of McGill University for this study was obtained in November 2004.

In addition to smoking cessation counselling with smokers not ready to quit or preparing to quit, the questionnaire collected data on socio-demographic characteristics, beliefs about smoking cessation, self perceptions of skills in counselling, barriers to intervening with smokers, desire to improve knowledge, and preferred types of assistance for interventions with smokers.

Descriptive analyses were conducted using the SAS 9.1 software program.

FINDINGS

The response proportion was 70 per cent.¹⁵

Determining client smoking status

Majority of dental hygienists asked clients on their first visit, as well as those with smoking-related health problems, whether or not they smoke (Table 1). For more than half of the clients who were smokers, 60 per cent of dental hygienists recorded the smoking status in the client's dental file, and 26 per cent assessed whether or not the smoker was ready to quit smoking.

Counselling practices

Tables 2 and 3 describe counselling practices among dental hygienists for two groups of smokers. Over half of dental hygienists (57%) discussed the effects of smoking on oral health with more than half of smokers not ready to quit, and 40 per cent of dental hygienists advised them to quit (Table 2). Forty-four per cent of dental hygienists asked more than half of smokers who were ready to quit how many cigarettes they smoked per day, 39 per cent discussed previous quit attempts and 25 per cent discussed strategies to quit smoking (Table 3). Thirty-five per cent indicated that the counselling they provided lasted more than three minutes.

Beliefs, perception of skills, and barriers

Majority of dental hygienists had favourable beliefs about counselling, and many reported that they had an important role to play in helping smokers quit (data not shown). However, few thought it was their role to provide follow-up (data not shown), and few thought they had the necessary skills to provide effective cessation counselling (Table 4).

Barriers to providing counselling reported as very or extremely important by more than 70 per cent of respondents included the following: lack of knowledge on pharmacotherapy (75%), lack of knowledge on counselling (74%), lack of time (72%), clients' resistance to counselling (74%), lack of interest on the part of the clients (71%) and the difficulty of follow-up (70%). Barriers including perceived lack of impact on the client (65%), difficulty determining if a client wanted to quit (64%), lack of compliance among clients (59%), lack of resources for clients (59%) and educational documentation (52%) were also reported by more than half the respondents.

Interest in improving knowledge

Fifty-nine per cent of dental hygienists were interested in improving their knowledge about smoking cessation. Many indicated that educational material for smokers, an inventory of resources available in the community for smokers, articles about cessation published in professional journals, printed materials for dental hygienists, and implementation of a system to identify clients who smoke would help them incorporate counselling into their practice. Presentations, Internet-based training and interactive workshops were not considered as helpful educational approaches (Table 5).

Table 1: Dental hygienists who ascertain smoking status according to type of client

Type of client	Ascertain smoking status of more than half of clients %	Ascertain smoking status of half of their clients or less %
Clients on their first visit	78	22
Clients with smoking-related symptoms or diseases	73	27
Clients who were smokers at the last visit	55	45
Clients without smoking-related symptoms or diseases	34	66

Table 2: Dental hygienists who counsel smokers not ready to quit

Intervention	Provide intervention to more than half of smokers %	Provide intervention to half of smokers or less %
Discuss the effects of smoking on oral health	57	43
Discuss the effects of smoking on health	35	65
Discuss clients' perceptions of the pros and cons of smoking	25	75
Discuss clients' perceptions of the pros and cons of quitting	25	75
Express concerns about the client's smoking	28	72
Advise clients to stop smoking	40	60
Offer printed educational material on smoking or cessation	11	89
Offer an appointment specifically to discuss cessation	1	99
Discuss the effects of second-hand smoke on the health of relatives and friends	6	94

Table 3: Dental hygienists who counsel smokers preparing to quit

Intervention	Provide intervention to more than half of smokers %	Provide intervention to half of smokers or less %
Ask about the number of cigarettes smoked each day	44	56
Discuss previous quit attempts	39	61
Discuss worries about cessation	18	82
Discuss strategies to quit smoking	25	75
Discuss withdrawal symptoms	19	81
Advise setting a quit date	9	91
Ask whether clients smoke their first cigarette within 30 minutes of waking	1	99
Offer printed educational material on smoking or cessation	12	88
Refer clients to cessation resources available in the community	8	92
Recommend nicotine replacement therapy (gum, patch or inhaler)	21	79
Recommend Zyban (bupropion)	4	96

Table 4: Perception of skill levels to undertake cessation counselling among dental hygienists*

	Agree somewhat or completely %	Neither agree nor disagree %	Disagree somewhat or completely %
I have the skills to help my clients quit smoking	33	31	35
I am able to tailor smoking cessation counselling to the specific needs of my clients	59	24	17
It is easy for me to initiate a discussion about quitting with my clients	48	23	29
I am able to ascertain the level of addiction of my clients	37	24	39
I think that I can influence my clients to quit smoking	39	40	21

* Figures are rounded to the nearest whole number and therefore may not total 100.

Table 5: Level of interest among dental hygienists in training/tools to update cessation counselling skills*

Training/tools	Very or extremely interested %	Somewhat interested %	Slightly or not at all interested %
Educational material for smokers	76	18	6
Inventory of resources	71	21	7
Articles in <i>l'Explorateur</i>	69	23	8
Printed materials	66	25	9
System to better identify clients who smoke	57	28	15
Smoking cessation guidelines	55	30	15
Articles on smoking cessation on the OHDQ Web site	49	31	20
Conferences on smoking cessation counselling	36	33	31
Audiovisual materials	28	36	37
Internet-based training	27	31	42
Interactive workshops	24	36	39

* Figures are rounded to the nearest whole number and therefore may not total 100.

DISCUSSION

According to the study conducted in 2005, dental hygienists in Quebec believe that motivating and supporting smokers to quit is an integral component of their role as dental hygienists. Although few dental hygienists received training on cessation counselling during (1%) or following (9%) their education, there is marked interest in improving their knowledge about cessation.

Few dental hygienists currently intervene with smokers, and few feel competent to provide effective counselling. Perceived barriers to providing cessation counselling include lack of knowledge on counselling and pharmacotherapy, lack of interest in quitting among smokers, and lack of compliance with advice among smokers. Dental hygienists also indicated that they would like to distribute printed educational materials to smokers, and refer them to community resources. They themselves would like to

receive printed educational materials on cessation.

The challenge in the coming years is, therefore, to develop activities that fulfil the needs expressed by dental hygienists to increase their feeling of competence and optimize their counselling practices. This is the challenge that OHDQ has committed itself in collaboration with its partners. For example, OHDQ partnered with Quebec Order of Dentists and INSPQ in 2007 to develop printed educational materials designed specifically for their members. The output was a concise yet detailed coffee-table book illustrating the effects of tobacco on oral and dental health, describing various strategies including pharmacotherapy to help smokers quit, and listing community resources. The book was focus tested in 2008 among dental hygienists and dentists to assure that information needed during client visits was easily retrievable; many changes were incorporated to take their comments into account.

Participants agreed that this new tool would be very helpful in their practice. Printed educational materials for smokers, including information on community resources, should also be developed.

Because few dental hygienists attend training sessions, this strategy should be reconsidered as it may not be optimal for professional development. Other means of conveying information such as the OHDQ professional journal should be used to address lack of knowledge on smoking cessation counselling and pharmacotherapy among dental hygienists. These publications should also emphasize that most smokers want to quit, and that they do intend to comply with advice given by health professionals, but find it very difficult because of nicotine addiction. A recent pilot study¹⁶ among 161 Alberta dental hygienists (response proportion of 25.2%) suggested that dental hygienists do use dental hygiene journals and provincial association newsletters or publications as knowledge sources; such publications were ranked highest in their usefulness as were in-services and conferences.

Because the data from the authors' study are based on self reports, cessation counselling practices could be overestimated. As well, the results of the 2005 survey might be influenced by the publication of the October 2004 edition of *L'Explorateur*, devoted entirely to tobacco-related articles.

CONCLUSION

Tobacco use causes numerous oral diseases including cancer of the mouth, leucoplasia, and periodontitis which are diagnosed and treated by dental health professionals every day.¹⁷ Dental hygienists can play a major role given that they can identify and show, in the mouths of their clients, the short term effects of smoking. Since more than half of Quebec residents visit a dental office at least once a year, tobacco cessation counselling by dental hygienists could contribute to reducing smoking. Components of effective counselling that could be an integral part of everyday practice are: asking if clients smoke and recording the smoking status of clients in their dossiers, advising smokers to quit and to think about strategies to quit, and supporting smokers in the process of quitting. The data collected from dental hygienists in 2005 will guide the development and implementation of interventions that respond to the needs of dental hygienists to help them optimize their smoking cessation counselling practices.

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