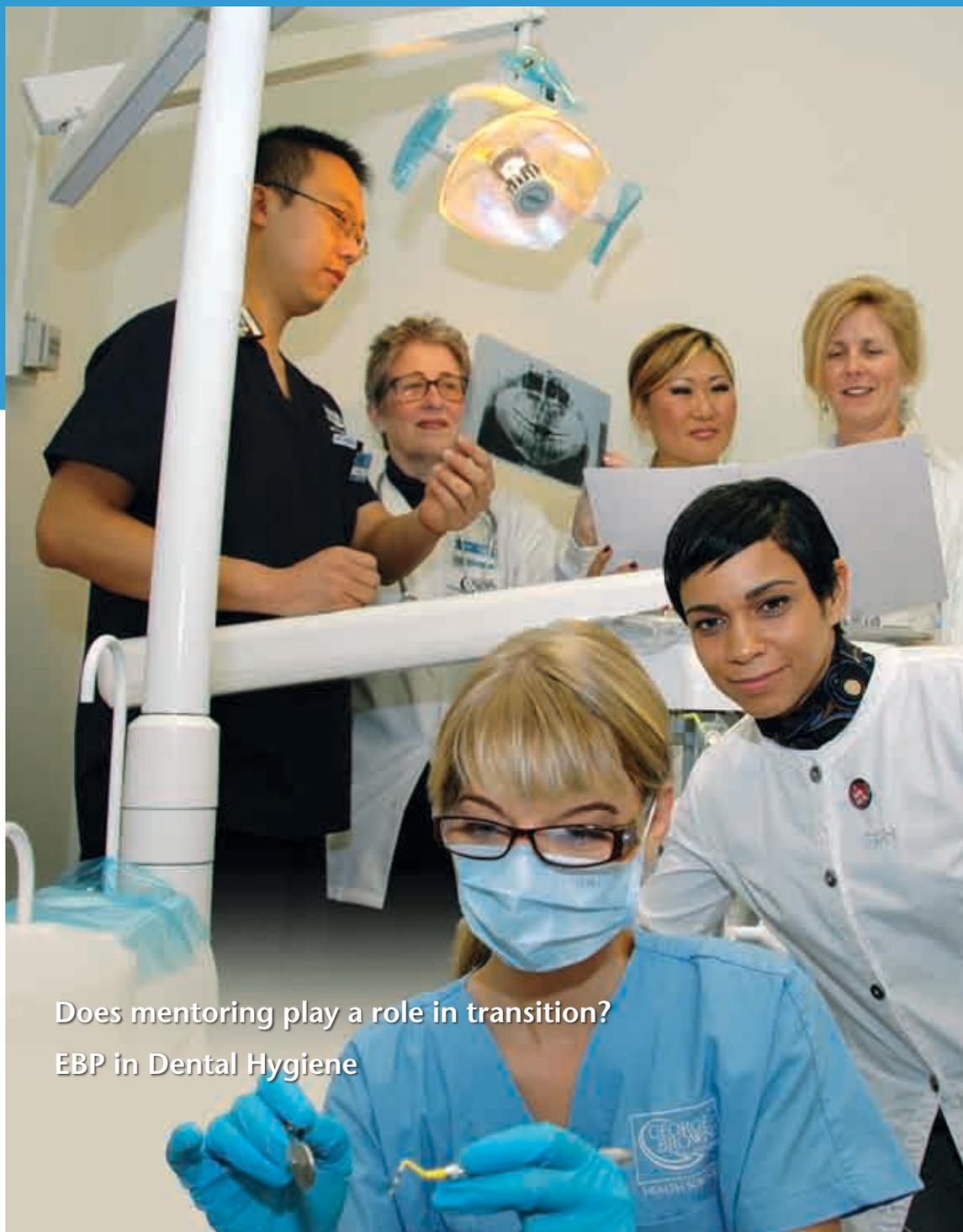


CJDH JCHD

NOVEMBER–DECEMBER 2010, VOL. 44, NO. 6



Does mentoring play a role in transition?
EBP in Dental Hygiene

George Brown College, Toronto, Ontario, 286

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Advocacy in action! One step at a time

What better way to begin my first message than by thanking you, my fellow member community of over 16,000 dental hygienists across Canada, for taking the time to read, learn, reflect, and ultimately share interprofessionally all that is unique to **our** profession! I take great pride in being a professional, a communicator, a collaborator, a coordinator, a critical thinker, and an advocate. I also pride myself that I share these attributes with yours, and as “a grassroots dental hygienist”, I walk along the same path as you.

My path to represent the face of leadership within our association was born through a passion for being an advocate. My professional and personal advocacy has sprung out of a need to be socially responsible. My clinical practice as a dental hygienist and member of CDHA spans 21 years! From an early age, my personal mission was to make a positive difference in others' lives. Naturally this was a perfect fit for embracing the mission statement of the CDHA, and for working to improve the oral health and general well being of the Canadian public.

It seems like a daunting task to “improve the oral health of the public”, but it can be done one step at a time. As advocates we can take an active role in ensuring the public has access to dental hygienists of choice and in varied practice settings by breaking down barriers.

We have already seen successful advocacy in action—working with community groups, government, non profit associations, and dental hygiene associations to make self regulation for our profession a reality in a majority of our provinces—an exciting, and a huge step in the right direction.

Personally, I advocate everyday in my practice and my community. I am a member of many associations that advocate on my behalf. I am extremely proud of the CDHA and its role in advocacy. In April of this year, I, “a grassroots dental hygienist”, stood before the Status of Women Committee on Parliament Hill in Ottawa and delivered a speech that informed a non partisan group of legislators on issues related to dental hygiene business practice. CDHA works hard advocating for YOU to help fulfill the mission statement for ALL, by raising awareness, lobbying, writing position papers, and collaborating with many on your behalf.

Advocacy heightens public awareness of the role of our profession as primary healthcare providers. Our individual efforts as advocates work towards the greater well being, and remind me of Neil Armstrong's iconic statement, “One small step for man, one giant leap for mankind”. I urge you to communicate the oral health issues in need of advocacy.

...continued on page 240

CDHA welcomes your feedback: president@cdha.ca



Palmer Nelson,
BA(Bio.), DDH, RDH

Une promotion à l'œuvre ! Une étape à la fois

Quelle meilleure façon de commencer mon premier message que de vous remercier, vous mes collègues, membres de notre communauté de plus de 16 000 hygiénistes dentaires au Canada ! Vous avez pris le temps de lire, apprendre, réfléchir et finalement partager entre nous tout ce qui est propre à **notre** profession ! Je suis très fière d'être professionnelle, communicatrice, collaboratrice, coordonnatrice, esprit critique et partisane. Je suis aussi fière de partager ces attributs avec vous et, en tant qu'« hygiéniste dentaire de base », de suivre la même voie.

Mon cheminement vers la tête de la direction de notre association résulte d'une passion pour la défense des droits. Cette intervention, personnelle et professionnelle, émane d'un besoin d'assumer ma responsabilité sociale. Mon exercice clinique d'hygiéniste dentaire et d'adhérente à l'ACHD s'étend sur 21 années ! Dès mon jeune âge, j'avais senti le besoin d'apporter un changement positif à la vie des autres. Naturellement, cela m'a incitée nettement à embrasser l'énoncé de mission de l'ACHD et à travailler à l'amélioration de la santé buccodentaire et générale de la population canadienne.

« Améliorer la santé bucco-dentaire de la population » apparaît comme une tâche intimidante, mais cela peut se faire une étape à la fois. En tant que promotrice, nous pouvons jouer un rôle actif pour faire en sorte que la population ait accès à un choix d'hygiénistes dentaires et à diverses cliniques, en brisant les barrières.

Nous avons déjà réussi des interventions : travail avec les groupes communautaires, le gouvernement, les associations sans but lucratif et les associations d'hygiène dentaire pour régler nous-mêmes notre profession dans une majorité de provinces. Immense et stimulante étape dans la bonne direction !

Personnellement, j'interviens quotidiennement dans mon cabinet et ma communauté. Je suis membre de plusieurs organisations qui interviennent en mon nom. Je suis extrêmement fière de l'ACHD et de son rôle d'intervenante. En avril dernier, en tant qu'« hygiéniste dentaire de base », j'ai prononcé, devant le Comité de la condition féminine sur la colline parlementaire d'Ottawa, un discours qui informait un groupe non partisan de législateurs des problèmes associés à la conduite des entreprises d'hygiène dentaire. L'ACHD s'efforce d'intervenir en VOTRE nom pour aider à l'accomplissement de votre énoncé de mission pour TOUS, en augmentant la sensibilisation, en multipliant les pressions, les prises de position et les collaborations en votre nom.

La promotion de notre profession accroît la sensibilisation publique au rôle que nous assumons en tant que dispensatrices de soins de santé primaires. Nos efforts individuels aident à améliorer le bien-être et me rappellent la boutade de Neil Armstrong : « Un petit pas pour l'homme, un pas de géant pour l'humanité ». Je vous incite vivement à faire part des problèmes de santé buccodentaires qui auraient besoin d'une intervention.

...suite page 240

L'ACHD accueille vos commentaires : president@cdha.ca

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Canada



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Building blocks to full blown advocacy—the victors

When I graduated from the dental hygiene program in the 1970s, there was only one dental hygiene school in Ontario. The dental hygiene school was housed in the Faculty of Dentistry at the University of Toronto. Not surprisingly, our graduation was combined with dentistry's graduating class. There was no class speaker selected from dental hygiene, and the dentistry graduate spoke for all of us. He spoke about the challenges of four years of dental school and the excitement surrounding the opening of his own dental practice. He had a vision, but as I think back, no one thought to ask us about our vision.

As I continued to reminisce about my own dental hygiene education, a thought struck me. Profession? I didn't think of myself as a professional when I graduated. I was an auxiliary in the dental office who cleaned patients' teeth. I had a "job" as a dental hygienist.

Thankfully, along the way, dental hygienists with much more foresight were working for me. We established our own regulatory bodies. For the first time dental hygienists would pay dues and liability insurance to our own professional college. During the 1980s and 1990s a private dental hygiene practice was almost impossible to start due to restrictive legislation. British Columbia led the way, where two pioneering dental hygienists had opened practices, one a storefront and the other a mobile practice. These dental hygienists are my role models.

In 2006 and 2007, the governments of Ontario and Alberta followed those of British Columbia and Saskatchewan, and passed legislation that allowed dental hygienists to treat clients on their own without the direct supervision of a dentist. This important milestone took dental hygienists over 30 years of hard work and lobbying in these provinces. Many of us thought that we would never see this opportunity in our lifetimes. To date, over 250 dental hygienists have opened their own practice in Canada. Don't be misled with pipedreams. These dental hygiene practices struggle. They struggle to get financing to build their practice, and they struggle to build client awareness. They report that they spend as much time on marketing and paperwork as they do providing oral hygiene care. They certainly earn less money than when they worked in a traditional dental practice, with the added bonus of working more hours! CDHA surveyed the private dental hygiene practitioners in 2008. While privately practising dental hygienists reported that their income had decreased as compared to working as an employee, not one told us that he/she regretted opening their own practice.

Dental hygiene has moved forward on educational fronts too. Dental hygienists can earn a bachelor's degree in dental hygiene in British Columbia, and many students



Ann E. Wright,
RDH, MBA

Les composantes d'une véritable promotion – les vainqueurs

Quand j'ai obtenu mon diplôme en hygiène dentaire dans les années 1970, il n'y avait qu'une seule école d'hygiène dentaire en Ontario. Celle-ci était située à la Faculté de dentisterie de l'Université de Toronto. Évidemment, notre remise des diplômes

se faisait en même temps que celle des finissants en dentisterie. Aucune représentante de l'hygiène dentaire n'était invitée à prendre la parole et un diplômé en dentisterie parlait au nom de tous et de toutes. Il rappelait les défis des quatre années passées à l'école dentaire et soulignait l'excitation que suscitait l'ouverture de sa propre clinique. Il avait une vision mais, quand j'y repense, personne ne s'informait de notre perspective.

En évoquant ma propre formation en hygiène dentaire, une pensée me vint à l'esprit : la profession ! Je ne m'étais pas vue comme professionnelle en recevant mon diplôme, mais plutôt comme auxiliaire dans un cabinet dentaire, chargée de nettoyer les dents des patients. J'avais un « emploi » d'hygiéniste dentaire.

Heureusement, chemin faisant, des hygiénistes dentaires qui voyaient beaucoup plus loin travaillèrent pour moi. Nous avons établi nos propres instances de contrôle. C'était la première fois que les hygiénistes dentaires payaient leurs cotisations et assurances responsabilité à leur propre collège professionnel. De 1980 à 1990, l'exercice privé de l'hygiène dentaire était pratiquement impossible à établir à cause des restrictions juridiques. La Colombie-Britannique en a pris l'initiative en autorisant deux hygiénistes pionnières à ouvrir leurs propres cliniques, l'une avec devanture et l'autre mobile. Je les considère comme des modèles.

En 2006 et 2007, les gouvernements de l'Ontario et de l'Alberta suivirent ceux de la Colombie-Britannique et de la Saskatchewan et adoptèrent des lois permettant aux hygiénistes dentaires de se trouver seules avec leurs clients, sans surveillance directe d'un dentiste. Cette importante étape a demandé aux hygiénistes dentaires 30 années d'efforts et de démarches assidues dans ces provinces. Plusieurs d'entre nous pensaient ne jamais en avoir la possibilité de leur vivant. Jusqu'ici, plus de 250 hygiénistes dentaires ont ouvert leur propre cabinet au Canada. Toutefois, ne vous laissez pas tromper par des chimères. Les hygiénistes dentaires de ces cliniques doivent se démener et se battre pour obtenir du financement, installer leur cabinet et sensibiliser la clientèle. Elles disent consacrer autant de temps au marketing et à la paperasserie qu'à la prestation des soins d'hygiène dentaire. Elles gagnent certainement moins d'argent que lorsqu'elles travaillaient dans un traditionnel cabinet de dentiste, avec en sus plus d'heures de travail! L'ACHD a surveillé les praticiennes en hygiène dentaire privée en 2008. Ces hygiénistes ont vu baisser leur revenu comparativement à celles qui travaillent à titre d'employée. Aucune n'a cependant dit regretter d'avoir ouvert son propre cabinet.

... suite page 256

entering dental hygiene school already hold a bachelor's degree in another discipline. There are over 225 dental hygienists in Canada who hold a master or doctoral degree, and these individuals are the program directors and professors, not only in the dental hygiene schools, but also in the faculties of dentistry.

Dental hygienists hold prominent positions in federal and provincial health departments and hold administration positions in oral health programs in public and community health programs. Dental hygienists work in industry, and many are consultants and researchers who are respected and sought after as conference and course leaders.

Key stakeholders look to dental hygienists for support and consultation. At the national level the CDHA sits on important committees as a full partner with other health professions. We speak to the government and to other powerful groups such as the First Nations.

Last year, the CDHA submitted a tender for a contract to provide dental hygiene services directly to seventeen First Nations communities in the Sioux Lookout Area. This was the first time the federal government had allowed dental hygienists to bid directly on this contract. This year the CDHA successfully bid on a second federal contract to develop a program on the awareness of *Elder Abuse*. We were one of six professions chosen to develop an elder abuse awareness program. Due to our unique one-on-one client relationship, the evaluators recognized that dental hygienists are in an optimal position to recognize the signs and symptoms of elder abuse. This contract is for two years and will be launched in 2011. Stay tuned for more information.

More has changed in dental hygiene over the last five

years, than in the last thirty. Very rarely are we referred to as "the staff member who does the cleanings". We have excellent training and skills and have taken our place beside other health professionals as a valued collaborator. Dental hygiene has "grown up".

I challenge you to become our ambassadors of the future and the advocates of our profession. When you network through your own community, remember to volunteer for health fairs and local activities. Introduce yourself to provincial and federal politicians and voice your opinions. Dental hygienists are spearheading volunteer efforts to bring oral health services to developing countries, and aid to Haiti. For the last two years, a resourceful dental hygienist in Ontario has led the *Gift from the Heart* program where private dental hygiene practices open their doors and provide free products or services each Valentine's Day.

CDHA also understands the challenges that young members face in the workplace. We know the job market is difficult and that the economics of supply and demand have an impact on dental hygienists' salaries and job opportunities. Do not be hesitant to venture out of the urban areas when you search for positions in dental practices. I challenge you to broaden your job search criteria. Think "outside of the op".

Let me conclude with a verse from "The Victor" by CW Longenecker.

*Life's battles don't always go
To the stronger or faster man.
But sooner or later, the man who wins
Is the man who thinks he can.*

 ©CDHA

■ **President's message**, *Advocacy in action! One step at a time*
...continued from 235

As part of the collective voice and vision of CDHA I look forward to hearing from you, meeting you, and highlighting your role as advocates, and in turn advocating on your behalf at the national level.



Editor's note:

Palmer's messages through her Presidency will be themed around the six National Dental Hygiene Competencies. Her first message, *Advocacy in action!*, ties in with the theme for the journal's covers in 2011. CDHA highlights the many ways dental hygienists act, work, envision, and inspire others in their advocate roles.

Palmer's biography is located on the CDHA website in a community sharing section called "Grassroots". It is her first blog as President, and over the course of the year she will introduce you to her fellow Board Directors who share in the collective vision and voice in fulfilling CDHA's mission.

 ©CDHA

■ **Message de la présidente**, *Une promotion à l'œuvre ! Une étape à la fois...* continued from 235

Dans le cadre de la mission « voix et vision » de l'ACHD, il me tarde de vous entendre, de vous rencontrer et de souligner votre rôle en tant qu'intervenantes et, en retour, d'intervenir en votre nom au niveau national.

Note de l'éditrice :

Sous sa présidence, les messages de Palmer auront pour thèmes les six compétences nationales en hygiène dentaire. Son premier message, *Une promotion à l'œuvre !*, s'insère sous le thème des couvertures du journal pour 2011. L'ACHD y souligne les nombreuses façons d'agir, travailler, voir et inspirer les autres dans leurs rôles d'intervenantes.

La biographie de Palmer se trouve dans le site Web de l'ACHD, dans une section intitulée « Grassroots ». Dans son premier blogue de présidente et au cours de l'année, elle vous présentera ses collègues du Conseil d'administration, qui partagent la voix et la vision collectives dans l'accomplissement de la mission de l'ACHD.  ©CDHA

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The evolution of Dental Hygiene: Looking back 40 years



◀ 40th reunion:
*Decadently Delightful
& Delicious Retreat
for Deserving Dental
Hygiene Divas!*

▶ Sherry's instructor
took this picture
to highlight all the
things that the
student was doing
wrong.



Dear Editor:

The evolution of Dental Hygiene: Looking back 40 years

Last year when many of our Class of '69 began our fifth decade of hygiene practice, we celebrated with a 40-year reunion: *A Decadently Delightful & Delicious Retreat for Deserving Dental Hygiene Divas!* During the four days together, we looked back on the many professional changes since our graduation from the School of Dental Hygiene, University of Alberta. Our curriculum was intense; we packed 14 full courses, with many labs, into two years. We were fresh from high school (British Columbia students had grade 13). Male students were not accepted and mature students were discouraged from applying. Stringent rules for professional dress code and deportment were enforced. Hair could not touch the uniform collar so students wore hairnets rather than have their tresses cut short. We wore long sleeved uniform dresses of knee length, and slacks were banned in class. We did not use gloves, masks, or eye protection in those days, and were probably one of the last classes to train standing up, working from the 9 o'clock position with a cuspidor unit on the other side of the chair. Handpieces were belt driven, pumice powder was used for stain removal, and bitter tasting stannous fluoride powder was mixed with distilled water before being applied with cotton pellets. Our main instruments were scalers, with hoes for the more adventurous. The shared Cavitron Unit was for gross calculus removal, and I had one session using it before graduation. Finding perio patients for our clinics was a challenge for staff as most patients were fellow university students. Our school was fairly new, and only now do I fully appreciate how hard our Director had to work to overcome the resistance she received from a patriarchal dental faculty while establishing the program.



▲ Capping ceremony at our graduation as dental hygienists in 1969.

There were only four universities in Canada with a School of Dental Hygiene, allied with a Faculty of Dentistry — in Edmonton, Winnipeg, Toronto and Dalhousie. A quarter of our class came from British Columbia and Saskatchewan. Over 50 per cent of the 21 graduates in 1969 took advantage of Alberta's Public Health Bursaries that assisted with tuition expenses. In return, they were given the opportunity to work all over Alberta in community health positions. At one time, Calgary employed 14 dental hygienists, an era when strong government funding supported public health policy and activities.

Forty-one years ago, few dental offices employed a dental hygienist; a quick scaling was often carried out by the dentist during restorative appointments. Many dental offices did not have more than two operatories or a regular recall system in place for dental hygiene visits. My first position offered me a small, windowless room, with old equipment, without suction or a water syringe; basic sickle scalers were available with a belt driven slow speed handpiece. I used cotton rolls to keep sites dry, and the patient rinsed at a

sink at the end of the appointment. I was instructed to charge \$5 to \$8 for the hour, and the work was difficult with stain and heavy calculus to remove. The dentist had previously charged only \$3 for the “cleaning”! As a timid and inexperienced 19-year old, I did not yet possess the confidence and verbal skills to educate clients on the value and importance of the oral hygiene care they were receiving. When a few complained about the higher fees, I reduced it to the minimum \$5. My daily salary was \$25 for an eight-hour day—twice what I had been paid working as a file clerk in Calgary’s oil patch the summer before!

My second employer became passionate about the preventive aspect of dentistry after we heard Dr. Robert Barclay’s Calgary lecture in 1970. Bob Barclay, an American dentist, was instrumental in instigating the needed paradigm shift in philosophy for organized dentistry at that time—away from the drill/fill/bill (or extract) focus of the mechanical restoring of existing damaged teeth, towards a true preventive vision—raising caries free children for the future. Dr. Barclay shared the moment of his epiphany with us, when his staff created a Christmas decoration for him by stringing their Pan radiographs together with red ribbons. As he viewed these grouped X-rays, he was shocked to realize how heavily restored each mouth was, in spite of belonging to young, healthy women in their prime. He felt this was not what dentistry should be about, repairing damage after it has occurred, when working with the upstream factors that make decay possible could prevent this from ever occurring.

Soon after Bob’s talk, our office created a *Five Visit Prevention Program*. We purchased an incubator for Synder tests (to test for saliva Ph), a phase microscope to show patients their personal bacteria, with the inclusion of diet analysis and counselling, a one-week sugar restricted diet program, and plaque control with coaching at each visit. The five visits were coordinated with hygiene scaling, and cost only \$25. I stopped teaching a roll stroke technique and changed to the sulcular/Bass stroke that Dr. Barclay advocated.

Thirty eight years ago I worked briefly in a dental office in Sydney, Australia. As I was not legally able to practise my profession, I chairside-assisted three dentists instead. It would be another twenty years before the New South Wales Dental Association allowed for the licensure of dental hygienists in their state! My progressive employer was sympathetic. It was not uncommon to have 18-year olds come in from remote sheep ranches and request full dentures.

Forty years ago dentistry was a patriarchal profession. With my third employer, the job interview consisted of only: “Can you start on Monday?” There was no discussion of salary or benefits. I had scant control over how I was to provide care to my patients as the dentist made *all* the decisions.

As I grew more experienced and confident in my professional skills, I was blessed to join a young practice that was collaborative, supportive and respectful of the talents that each staff member brought into work. We held weekly staff meetings, developed visions and goals, and had fun at work. My employer was open to suggestions that I offered from working in previous practices. We became a family

that cared for each other, and the difference it made to our patients was evident.

After working for 28 years with white middle class working families and promoting ‘high end’ quality dental care, I changed my career path 180 degrees by accepting a community health opportunity of a lifetime. It was only when I was able to step outside of the private practice system and setting did I begin to meet and develop rewarding relationships with those unable to access regular basic dental care that many of us take for granted. I met some of the marginalized, the poor, the homeless, the disabled, elders, and those living with physical and mental challenges in my community.

Dentistry has seen many changes in the past century. During the Great Depression, my grandfather (Class of ‘17) provided dental care in Alberta, and it was not unusual for the patient to pay with some eggs or produce for dental services in those hard times. Prior to the 1970s dental insurance was non-existent, and my own dentist (Class of ‘44) was known to accept an exchange of a patient’s sales product or labour in return for a needed filling. The TD Bank was next door, and patients could arrange for a Dental Loan by providing the bank with the treatment plan details. It was an equitable agreement. No one in pain was ever turned away, even if it appeared that payment was unlikely. I was aware that charity and kindness was included in our office philosophy—a social contract that came with the dentist’s DDS.

Dentistry has continued to evolve to a higher level of technology, and I believe well managed practices have become dentist centred/production oriented in this fee for service industry. Cosmetic treatments and botox are advertised. Public health funding has been reduced; programs cut, and publicly funded dental benefit plans continue to fall behind the yearly increase in dental fees set by provincial dental associations. Lower salaries for community health dental hygienists make private practice employment more attractive to new grads, resulting in fewer dental hygienists working with health promotion programs and fewer school based interventions being initiated.

The most positive shift for our profession undoubtedly has been legislative, with Self Regulation practice, and the ability to get out from under oppressive *Dental Acts* that restricted how, where, and with whom dental hygienists could provide their services. Private dental hygiene practice allows for greater diversity in the joint creation of possibilities, and opportunities to reach those individuals who are most in need of our skills, our caring ways, and dedicated services. While none of the Class of ‘69 is interested in private practice ventures available to us in 2010, a number of them were instrumental in the groundwork and development of policies that made it all possible in British Columbia. Today, almost half of our class still practise.

In 1969 we were told the average “life span” of our career would be about five years. We have proven that to be a myth!

Respectfully,
Sherry Saunderson, RDH, DipDH
E-mail: sherlar@shaw.ca
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Does mentoring play a role in the transition from student to dental hygienist?

Catherine E. Grater-Nakamura*, RDH, BDS_c(DH); Janet F. Aquilina-Arnold[§], RDH; Katherine Keates[§], RDH; Lesley Lane[§], RDH

ABSTRACT

Background: Research has shown that mentees can benefit both personally and professionally from involvement in mentee-mentor relationships. Although mentoring has been explored extensively, there is a gap in the research from a dental hygiene perspective. **Objectives:** The aim of this review is to examine literature related to answering the question: Could involvement in a mentee-mentor relationship facilitate the transition from student to practising dental hygienist for dental hygiene students or recent graduates? This paper examines the concept of mentoring; defines relevant terms; and explores the benefits, challenges and features of mentoring relationships. Current research and its relevance to the dental hygiene profession are discussed. **Method:** Using key words and combinations of keywords, an electronic search of standard databases was conducted. Authors reviewed primary, secondary, and professional sources of literature. **Results and discussion:** Individual studies and the overall body of research show limitations. Evidence suggests that although successful mentoring frequently yields beneficial outcomes for novices, not all mentoring relationships are positive; mentees and mentors must work collaboratively; and challenges for mentoring programs need to be identified and overcome. **Conclusion:** While individual studies do not adequately answer the question, collectively they suggest that mentoring relationships can ease the transition from student to practitioner. Mentoring programs would benefit from implementing structured evaluations of processes and outcomes to ensure that they are effective and beneficial. More dental hygiene specific primary research on this topic is required to fully understand the role mentorship plays in the transition to clinical dental hygiene practice.

RÉSUMÉ

Contexte : La recherche démontre que les mentorés peuvent profiter personnellement et professionnellement de la relation mentor/mentorée. Bien que le mentorat ait fait l'objet d'abondantes études, un manque persiste dans la recherche sous l'angle de l'hygiène dentaire. **Objet :** Cette revue a pour objet d'examiner dans quelle mesure la littérature répond à la question que voici : la relation mentor/mentorée peut-elle faciliter la transition de l'étude en hygiène dentaire à l'exercice de la profession pour l'étudiante ou la nouvelle diplômée? L'article examine la notion du mentorat, définit les termes pertinents et sonde les avantages, les défis et les caractéristiques des relations mentorales. Il traite aussi de la recherche et de sa pertinence pour la profession de l'hygiène dentaire. **Méthode :** À l'aide de mots clés et de combinaisons de mots-clés, les auteures ont fait des recherches électroniques dans des bases de données standard et examiné les sources littéraires primaires, secondaires et tertiaires. **Résultats et discussion :** Les études individuelles et l'ensemble de la recherche présentent des limites. Les données indiquent que, bien qu'un mentorat réussi produise souvent des résultats bénéfiques chez les novices, les mentorats ne sont pas tous positifs; les mentorées et les mentors doivent collaborer; et les défis des programmes de mentorat doivent être identifiés et surmontés. **Conclusion :** Si les études individuelles ne répondent pas adéquatement à la question, collectivement, elles suggèrent que les relations du mentorat peuvent faciliter la transition de l'étudiante à la praticienne. Les programmes de mentorat bénéficieraient de l'application d'évaluations structurées des procédures et des résultats pour en assurer l'efficacité et les bons résultats. D'autres recherches primaires propres à l'hygiène dentaire s'avèrent nécessaires pour comprendre entièrement le rôle du mentorat dans la transition vers l'exercice clinique de l'hygiène dentaire.

Key words: dental hygiene, mentor, mentorship, students, new graduates, transition

INTRODUCTION

Dental hygiene has evolved from a technical occupation to a recognized healthcare profession.¹⁻⁶ This change is underpinned by a growing understanding of oral-systemic links,^{1,7-14} the recognition of the relationship between oral health and quality of life,¹⁵⁻¹⁸ technological advances,^{1,19,20} and the movement towards evidence based practice.^{1,2,21-25} Because newly registered dental hygienists are considered fully qualified professionals, it is assumed they have the theoretical knowledge, clinical skills, critical thinking abilities, and professional attitudes required for entry-to-practice.²⁶⁻²⁹ Despite their academic achievements, new graduates may be ill prepared to fulfill their professional role, and may find their initiation into clinical practice very stressful.^{30,31} Mentoring may play a positive role in easing the transition from student to practising dental hygienist.

CONCEPT OF MENTORING

What is mentoring?

Mentoring is a developmental relationship based on equality and mutual respect. It is considered a focused and complex process requiring conscious commitments from both the mentor and the mentee, and involves more than passive role modelling or providing short term, task specific coaching.³²⁻³⁶ Mentoring partnerships may be formal or informal. Informal mentoring is voluntary. They involve one-to-one relationships that form naturally between two colleagues or peers who are mutually committed to furthering the professional development of a novice.^{37,38} Formal mentoring programs are administered by an organization,

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Mentors helping mentees	Mentees helping themselves
<ul style="list-style-type: none"> • Facilitating the transfer of knowledge and experiential insights related to clinical practice, and dental hygiene processes of care • Assisting them as they negotiate workplace challenges • Observing, reviewing and critiquing clinical skills and record-keeping practices • Observing and critiquing interactions between mentee and clients • Offering opportunities to discuss (in person, by phone or e-mail) mentee concerns and experiences and offering insight and feedback • Introducing them to professional development and networking opportunities • Supporting them through their problem solving and decision making processes • Being committed to the mentoring process and to the mentee 	<ul style="list-style-type: none"> • Openly sharing their thoughts and concerns with their mentor • Critically evaluating advice provided by the mentor • Proactively searching for answers to their questions (as opposed to relying solely on their mentor to provide them) • Sharing newfound experiences and insights with peers • Being open to new or different ideas that may be divergent from their academic experiences • Planning outcome goals and objectives, and developing strategies to fulfill them • Seeking and maximizing networking and professional development opportunities • Being committed to the process of mentoring and to the mentor^{42,56,58}

Table 1. Dental hygiene mentoring strategies – An interactive process.

are structured, and are of predetermined duration.³⁹ Pairing mentors and mentees with complementary attributes has been shown to produce positive results.^{40–42} On the other hand, pairing those with dissimilar interests and qualities may work well because participants could have an opportunity to learn from each other’s differences.⁴³

What is a mentor?

Historically, the term *mentor* has been based on characteristics embodied by a literary character – Mentor – from Homer’s epic poem, *The Odyssey*, and in Fenelon’s *Les Aventures de Telemaque*.^{34,45,46} Today, society perceives mentors as teachers, supervisors, advocates, and advisors.^{35–38,43,47–50} A mentor is an experienced or knowledgeable person who facilitates the personal and professional growth of a mentee (a less experienced or knowledgeable person) by sharing information, skills, and insights that have been learned during their career. Effective mentors possess several positive attributes. They are honest, sincere, caring, patient, empathetic, supportive, and respectful. Mentors should be good listeners and communicators, be able to share both their successes and their struggles, and have the ability to coach by providing positive and constructive feedback. Professional expertise, strong critical thinking and analytical skills, political awareness, confident leadership skills, and commitment to the partnership are important traits for mentors.^{40,41,47,48,51–55}

What is a mentee?

Mentees are motivated learners who are willing to enter into a partnership with a mentor. They are responsible for keeping an open mind, and being receptive to what their mentors and the mentoring experience have to offer. Mentees are active participants in the process; they discuss their expectations and overall vision with their mentor, and actively work toward fulfilling their goals. Good mentees are inquisitive, perceptive, astute observers, and introspective. Mentors expect mentees to have strong communication skills, and the abilities to listen, analyze, and think critically.^{33,56}

Features of an effective mentee–mentor relationship

Several elements are required to foster a successful mentoring partnership, including:

- The ‘right chemistry’ (i.e., interpersonal compatibility)
- Sharing a vision
- Mutual respect and equality; acceptance of diversity
- Dedication to the mentoring processes by both mentor and mentee
- Mutually understood goals and expectations; minimize hidden agendas
- Commitment to fulfilling identified goals and expectations
- Commitment to openly and effectively communicating, including a willingness to explore diverging ideas and resolve conflict
- Willingness to engage in periodic self assessment and process evaluation.^{42,44}

Mentees have an opportunity to find, unlock and reach their potential when both parties are truly committed to fulfilling their mentoring functions effectively.⁹¹

Hitting the ground running: Entering the real world of dental hygiene

In dental hygiene programs, students are taught to provide comprehensive and evidence based oral care, and are encouraged to develop a culture of professionalism. Upon graduation, novice dental hygienists may perceive that they are fully prepared to “hit the ground running”^{57p.17} when they initially enter the workplace. Instead, they may be met with several unexpected challenges. Time constraints, physical strain, and pressures from clients, employers, experienced peers, and support staff can contribute to a stressful introduction into clinical practice.^{31,58} Real and perceived conflicts may arise from the need to address regulatory requirements while fulfilling employer demands. As professionals, dental hygienists must consider current scientific evidence when making clinical care decisions, adhere to established standards of practice, satisfy quality assurance requirements, and assume responsibility for their actions.^{59–62} Although legal

and ethical responsibilities commence immediately upon registration, novice dental hygienists may not fully appreciate their obligations. Finding the confidence to meet and overcome these potential obstacles can be challenging. By providing a more balanced view of the possible disconnects between expectations, regulatory requirements, and practice reality, mentors may help new registrants through reality checks associated with entering the real world of dental hygiene.^{30,33,51,63} Mentoring may ease the transitions from student, to novice, to confident and competent professional.

Mentoring in dental hygiene

Mentoring has been broadly discussed in the literature, and mentorship programs in healthcare settings are becoming more commonplace.^{30-35,38,39,41-44,47-49,51-58,64-88} Although some preliminary attempts have been made to study the role of mentorship from a dental hygiene perspective, a significant gap exploring this concept currently exists in the literature.

The roles, responsibilities, and expectations of mentees and mentors are closely intertwined and often complementary; therefore, in a dental hygiene context, experienced clinically practising dental hygienists, educators, researchers, or corporate employees may act as mentors to dental hygiene students or novice dental hygienists. Mentoring in dental hygiene is intended to be an interactive process. Both mentors and mentees share the responsibility for implementing strategies to facilitate a mentee’s growth and success (see Table 1). Fulfillment of mentoring functions should cultivate self reliance in mentees and has the potential to provide both short- and long-term benefits for mentors, mentees, dental hygiene clients, and the dental hygiene profession.^{34,35,41,47,89}

Benefits and challenges of mentoring relationships

Mentoring relationships in dental hygiene involves reciprocal processes that produce benefits and create challenges for participants (see Table 2).

	For mentor	For mentee
Benefits	<ul style="list-style-type: none"> Professional and personal growth and satisfaction Insight into personal dental hygiene practice Insight into new and different ideas Development of communication and interpersonal skills Enhancement of leadership skills Contribution to the fulfillment of professional quality assurance goals Contribution to professional networking and development Opportunity and inspiration to explore new career paths 	<ul style="list-style-type: none"> Opportunities to explore work-related challenges Understand employment and/or regulatory issues Development of strategies to manage ethical, legal and interpersonal dilemmas Increased confidence Enhanced self esteem Increased autonomy Broadened opportunities for professional networking and development Opportunity to explore various career paths^{31,43,51,66,72,75,91}
Challenges	<ul style="list-style-type: none"> Finding a well suited mentee who is committed and proactive Scheduling mutually convenient time for interaction and discussion Having a mentee who: <ul style="list-style-type: none"> Has the sole intention to attain positions of power (including usurping power held by the mentor) Believes he/she holds all necessary knowledge Makes unsanctioned statements attributed to the mentor May attempt to damage the mentor’s reputation and/or undermine the mentor’s authority Feels resentful, jealous and envious of the mentor’s professional position 	<ul style="list-style-type: none"> Finding a suitable mentor Scheduling mutually convenient time for direct and indirect contact Having a mentor who: <ul style="list-style-type: none"> Is habitually unavailable for feedback and discussion Assigns full responsibility for learning to the mentee Does not facilitate the learning process Has a “sink or swim” approach to the mentee’s learning Blocks’ mentee success through micromanaging or holding back critical information Prevents growth that could diminish confidence Constantly undermines the mentee causing feelings of demoralization Does not allow the mentee to have original ideas Believes the mentee is not capable of independent inspired thought Does not allow discussion or opposition to mentor’s views^{56,58}

Table 2. Benefits and challenges for mentors and mentees.

Benefits

Benefits for mentees

Mentoring relationships frequently yield positive outcomes, especially when mentees keep an open mind and actively participate in their own learning.^{30,33,43,44,49,51,52,69,70,74-77,90} Working with a mentor allows mentees opportunities to explore work related challenges and anxieties, and can help them understand employment and regulatory issues. When involved in an effective mentoring relationship, mentees get the support they need to explore and develop strategies to manage legal, ethical, and interpersonal challenges. Mentees' self esteem and sense of autonomy is enhanced when they are exposed to new theories and practices, and they develop confidence in their professional roles, clinical skills, and problem solving or decision making abilities.^{31,43,51,66,72,75,91} Mentees' awareness of issues influencing the profession is increased and socialization into the culture of dental hygiene is fostered when mentees are connected to networking and professional development opportunities.^{30,43,51,66,75,76}

In nursing, mentoring has been linked to higher rates of remuneration, professional advancement, improved opportunities for career variability and enhanced overall job satisfaction.⁹² Although mentoring relationships may provide opportunities for mentees to explore various career paths, there is currently no indication that dental hygiene salaries or other benefits are tied to mentoring.

Benefits for mentors

Dental hygiene mentors benefit from the professional growth and satisfaction that comes with sharing their expertise, and from watching mentees develop their skills and confidence. By exchanging ideas about pertinent issues and trends in dental hygiene with mentees, mentors may gain insight of new perspectives, and recognize areas in their own practice that may be require augmenting. They can develop their communication and leadership abilities, and enhance their interpersonal and clinical skills. For some, mentoring may also provide the opportunity to satisfy quality assurance requirements or the inspiration to explore new career possibilities. When mentees suggest alternative educational opportunities, mentors may also gain new and varied information, insight, and professional connections. By volunteering in such an endeavour, mentors may experience personal growth and satisfaction.^{58,83,91,93}

Challenges

Known as the "dark side of mentoring",^{82p.50} not all mentoring relationships are positive.^{32,43,54,75,77,82,94,95} Incompatibility stemming from dissimilarities in backgrounds, values, beliefs, and work ethics; insufficient time and commitment; and "power differential[s]"^{93p.6} are obstacles to successful mentoring experiences.^{32,43,54,83,93,94} Destructive mentoring partnerships may also contribute to career dissatisfaction for both mentees and mentors.⁵⁶ However, not all negative experiences are the result of mismatches or incongruent behaviours; deficient program organization has also been identified as a contributing factor.^{30,43}

Challenges for mentees

Challenges for mentees may be personal, behavioural, or environmental in nature. Dental hygiene students or new graduates may understand the benefits of mentoring relationships and may want to enter into such an affiliation, but may have difficulty finding a suitable mentor. Research has shown that some mentors may be manipulative, authoritarian, possessive, neglectful, paternalistic and overly critical. They may also use 'gatekeeping' strategies (i.e., controlling or limiting access to information or services) to control mentees. Mentors who do not understand mentoring processes, are not committed to the partnership, or cannot (or will not) dedicate sufficient time to work directly with mentees, may intentionally or unintentionally contribute to sentiments of anger, frustration, anxiety, intimidation, isolation, rejection, and disconnection in affected mentees (see Table 2).^{43,54,75,82,83,93,94}

Mentees may also explicitly or implicitly contribute to poor outcomes.³⁴ For example, feelings of jealousy and rivalry may cause mentees to manipulate both mentors and situations for their own gains.⁵⁶

Challenges for mentors

As part of a dynamic mentoring team, mentors also face challenges that must be overcome for a successful conclusion. For a motivated mentor, partnering with an equally motivated, proactive and committed mentee enhances the viability of the working relationship. Mentees who hold feelings of jealousy, resentment, or have power aspirations may deliberately or inadvertently minimize the mentor's contributions (see Table 2). Such behaviours could be considered disrespectful and unprofessional, and could be damaging to the relationship and the outcome of the process.

Ultimately, the challenges described above can produce unsatisfactory outcomes for mentees, mentors, clients, and the dental hygiene profession.

Current research

Numerous studies from several disciplines and with various designs were evaluated to allow us to take a holistic view when evaluating the effects of mentoring. Empirical evidence showing the value of mentorship programs in healthcare settings has been mounting.^{30-32,44,49,51,52,54,64,66,69-79,84,85,90}

In addition to the benefits and challenges listed above, research also shows that mentorship initiatives would enhance bachelor and graduate degree programs, and that improved career satisfaction may be achieved if mentoring begins in school.⁷³ Thus, facilitating mentorship programs in dental hygiene schools, and dedicating the time and effort required to overcome potential barriers (e.g., money, staff, time, a lack program evaluation procedures, perception of need) may benefit both students and new graduates.^{30,73}

Although research shows there are benefits and challenges to mentoring, it is impossible to generate a complete view of this concept without further dental hygiene specific research. We can only speculate that dental hygienists would experience the positive outcomes described in the broader body of literature related to mentoring. Therefore,

serious consideration to primary research (quantitative and qualitative) in a dental hygiene context would contribute to enhanced understanding of mentoring relationships and would ensure that the efforts of all participants are recognized.

Mentoring dental hygienists in the future: Where do we go from here?

Novices are considered a profession's "most precious asset,"^{41p.113} and some maintain that mentoring is a professional responsibility.^{38,73,86,96,97} Therefore, it would be beneficial to explore possibilities for mentoring future dental hygiene students and novices.

Mentorship has been used successfully in corporations, healthcare, and educational settings where a high level of organization and adequate financial and human resources may be available to support such endeavours. Based on this review of multidisciplinary literature, it appears likely that dental hygiene graduates who participate in effective mentorship relationships will experience an ease of transition to clinical practice as well as personal and professional growth. Yet the question remains, "Where do we go from here?"

Evolutionary educational changes, the development of entry-to-practice standards, and recognition of dental hygiene as a self-regulating profession contribute to the ongoing professionalization of dental hygiene in Canada. Professional documents (e.g., practice standards, guidelines, codes of ethics, and entry-to-practice competency documents) could serve as tools to support and complement the mentoring process, and act as bridges between academic preparation and the reality of dental hygiene practice. Mentees and mentors could use these documents to identify and develop mentoring goals, objectives, and strategies.

New registrant mentorship program

The number of new registrants entering the profession has been steadily growing in Canada over the past several years.⁹⁸ Recognizing the benefits of mentoring relationships, the College of Dental Hygienists of Ontario (CDHO) developed a practical mentoring system — the *New Registrant Mentorship Program* (NRMP).⁵⁸ The NRMP provides new registrants wishing to self-initiate the controlled dental hygiene acts of "scaling teeth and root planing, including curetting surrounding tissue"^{58p.5} with an opportunity to fast track their application for self-initiation. In order to enrol in the program, both mentor and mentee enter into a formal agreement with the CDHO to fulfill certain criteria before the new registrant's application for self-initiation can be accepted. Success of the program is determined when the mentors judge that the mentees are ready to take on their new responsibilities and declare that they have fulfilled the terms of the contract.⁵⁸ It is reasonable to speculate that the establishment of such a structured, formalized mentorship program has provided benefits for stakeholders and will likely continue to do so in the future.

New York Institute of Technology Pro-Bono Physical Therapy Clinic

A practical yet novel approach to developing a

mentoring program might be to establish pro bono (i.e. no cost or reduced fee) community clinics.⁹⁹ In order to serve a local community, enhance students' learning, and fulfill accreditation criteria, the New York Institute of Technology (NYIT) Department of Physical Therapy implemented a pro bono clinic as part of its curriculum. The clinic was designed to allow students to participate in their own learning and to augment their educational experiences by exposing them to faculty role models and providing them with the opportunity to enhance their clinical care and communication skills. Participating in the NYIT program helped meet the healthcare needs of the community while providing students with clinical experience, cultivating professional socialization and instilling a sense of social responsibility. Students also benefited from the opportunity to enhance their critical thinking and problem solving abilities, integrate theoretical and practical knowledge, improve retention of information, develop communication skills, improve clinical performance, and reduce anxiety associated with entering practice.⁹⁹

The NYIT program's successes suggest that developing and implementing pro bono dental hygiene clinics could produce similar results. Such programs could help meet the oral healthcare needs of underserved communities, provide an ideal environment to foster mentoring relationships and effectively smooth the transition to clinical practice.

Dallas Dental Hygienists' Society / Caruth School of Dental Hygiene Mentorship Program

Another way to encourage mentoring on a sustainable basis would be for dental hygiene societies and dental hygiene schools to work together. For example, the Dallas Dental Hygienists' Society (DDHS) and Baylor College of Dentistry's Caruth School of Dental Hygiene in Texas, USA, partnered to develop and establish a mentoring program in 2001 in which DDHS members are paired with Caruth students in their final year. Program coordinators take a holistic view when pairing mentors and mentees; they look at students' interests, expectations and goals and match them to mentors with complementary interests. Although the program has no formal mentoring procedures or mechanisms to evaluate results, mentors are expected to support the students throughout their final year at school, attend special functions with them, and prepare them for their role as a professional.¹⁰⁰ In essence, the DDHS program eases the transition from student to practising dental hygienist (Crawford L, personal communication, 12 Jul. 2010).

Preceptorship

Nurses, like dental hygienists, are responsible for engaging in continuing competency activities to ensure their knowledge, skills, and practice are current and evidence based.^{101,102} In nursing, both mentorship and preceptorship are integral components of the profession's culture; nursing leaders are *expected* to share their knowledge and expertise with students, novices, and peers to help support ongoing quality assurance within the profession.^{101,103,104} A preceptor is "an identified experienced practitioner who provides transitional role support and learning experiences

within a collegial relationship for a specific time, while continuing to perform some or all of the other responsibilities of their position."¹⁰⁵ Comprehensive preceptorship programs often take place in hospital settings, where nursing students or recently graduated nurses are formally paired with qualified preceptors who are responsible for evaluating their performance, ensuring they provide safe and competent care, are familiar with policies and procedures, and are socialized into the hospital environment. In this way, preceptorship provides experiential learning opportunities and supports the successful transition from novice to competent team member.^{102-104,107} Preceptorship programs have also been shown to enhance job satisfaction and improve the retention of new graduates.^{102-104,108} After formal preceptorship requirements have been fulfilled, some partnerships may go on to form mutually beneficial long term mentoring relationships.

When used in relation to dental hygiene, preceptorship has taken a different meaning than the one adopted by nursing. The American Dental Hygienists' Association (ADHA) likens preceptorship to on the job training. In this context, preceptorship means "to have a practicing dentist train a worker on the job to perform dental hygiene duties, instead of [emphasis added] going through a two-to-four-year formal, accredited education program and national and regional examinations to obtain a license."¹⁰⁹ The ADHA maintains that oral healthcare workers who obtain preceptorship training by dentists while on the job are not qualified to provide safe and effective dental hygiene treatment. Those without appropriate credentials may inadvertently and unknowingly pose health risks to clients.¹⁰⁹

Although dental hygiene and nursing have distinct scopes of practice, as health professions they are linked by the overarching dictum to "do no harm"^{22,110} Therefore, if nursing has effectively surmounted obstacles that also relate to dental hygiene practice, it is appropriate to explore the systems that have proven successful. That is, if there are lessons to be learned, dental hygiene should attempt to learn from them (Cathcart G, personal communication, 30 Aug. 2010). Post educational preceptorship, as defined by nursing, coupled with postpreceptorship mentoring may provide yet another framework to improve the integration of novice dental hygienists into the workplace.

Alternative approaches

One obstacle to mentorship in dental hygiene is the often solitary style of practice. New graduates may feel isolated from the collegial associations they would typically experience during their time in school and may have difficulty maintaining or making the connections needed to help support transitional growth. Distance mentoring and including formal faculty-student mentorship programs in dental hygiene school curricula could serve as alternative approaches and could help overcome that barrier.^{30,87,111}

CONCLUSION

When considered collectively, the literature helps narrow the gap between healthcare related mentorship theory and practice. Despite limitations in individual studies and in the overall body of research, the literature provides

compelling and credible evidence to support the idea that mentee-mentor relationships can benefit both parties, and facilitate the transition from student, to novice, to practising clinician. When new graduates are exposed to new theories or practices under the guidance of a mentor, they may develop increased confidence in their clinical, decision making, and time management skills, thereby increasing self esteem and promoting autonomy.^{31,43,51,66,72,75,91,102} Some studies have shown that not all mentoring relationships are positive;^{32,43,54,75,77,82,94,95} therefore fostering mutually respectful partnerships could improve outcomes and enhance the experience for mentees and mentors.

Successful mentoring initiatives depend on developing both awareness and commitment to mentoring at all organizational levels.^{87,102} Theoretically sound programs require significant time and effort to reduce negative outcomes.^{102,112} Consequently, program strategies and mentoring guidelines should be designed with awareness of potential obstacles; be of adequate duration; be supported and rewarded by the profession; offer training and support; and be evidence based.^{96,101,112,113} Formal evaluation of existing dental hygiene mentorship programs appears to be inconsistent; ongoing monitoring and evaluation would help ensure validity and reliability of the programs,^{88,112} and would help determine whether mentoring has a function in the evolution of dental hygiene as a profession.

Although there is very limited research discussing mentoring specifically related to dental hygiene, we can extrapolate findings from related studies and cautiously conclude that mentors may help students and novice practitioners learn about workplace realities and professional expectations; foster a culture of professionalism; and contribute to personal and professional growth. As seen in nursing, mentoring may contribute to career longevity and may pave the way for grooming future dental hygiene leaders.^{41,101,102,108} More primary research needs to be conducted before an understanding of the transitional role mentorship plays in dental hygiene practice is achieved. In the meantime, as dental hygienists enter the profession, promoting and nurturing positive mentoring relationships may enrich practitioners' career experiences, contribute to the professionalization of dental hygiene, and help smooth the transition from student to practising dental hygienist.

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■ **Message de la directrice générale (intérimaire),**

Les composantes d'une véritable promotion – les vainqueurs

...suite 239

La formation en hygiène dentaire a aussi progressé. Les candidates peuvent obtenir un baccalauréat en hygiène dentaire en Colombie-Britannique et plusieurs étudiantes accédant à une école d'hygiène dentaire détiennent déjà un baccalauréat dans une autre discipline. Le Canada compte aussi plus de 225 hygiénistes dentaires qui ont une maîtrise ou un doctorat. Ce sont des directrices de programme et des professeures, non seulement dans les écoles d'hygiène dentaire mais aussi dans les facultés de dentisterie.

Des hygiénistes dentaires occupent des postes importants dans les ministères de la santé, fédéral et provinciaux, et des postes administratifs dans les programmes de santé bucco-dentaire des organismes de santé publics et communautaires. D'autres travaillent dans l'industrie et plusieurs occupent des postes respectés de consultation et de recherche et sont sollicitées comme conférencières et chargées de cours.

Les principaux intervenants se tournent vers les hygiénistes dentaires aux fins de soutien et de consultation. À l'échelle nationale, l'ACHD participe à d'importants comités à titre d'associée à part entière avec les autres professions de la santé. Nous parlons au gouvernement et à d'autres groupes puissants, tel celui des Premières Nations.

L'an dernier, l'ACHD a présenté une soumission pour dispenser des services d'hygiène dentaire directement dans dix-sept communautés des Premières Nations de la région de Sioux Lookout. C'était la première fois que le gouvernement fédéral permettait aux hygiénistes dentaires de soumissionner directement pour ce contrat. Cette année, l'ACHD a obtenu par soumission un second contrat fédéral pour l'élaboration d'un programme de sensibilisation sur l'Abus aux aînés. Nous faisons partie des six professions retenues pour élaborer un programme de sensibilisation aux abus envers les aînés. Vu le caractère unique de notre relation, seule avec le client, les évaluateurs ont reconnu que les hygiénistes dentaires étaient les mieux placées pour déceler les

signes et les symptômes d'abus aux aînés. Il s'agit d'un contrat de deux ans qui débutera en 2011. Surveillez les informations.

Depuis cinq ans, l'hygiène dentaire a évolué beaucoup plus qu'au cours des trente dernières années. On réfère rarement à nous comme « l'employée qui fait le nettoyage ». Avec une formation et une compétence excellentes, nous avons notre place avec les autres professions de la santé à titre de précieuses collaboratrices. L'hygiène dentaire a « grandi ».

Je vous mets au défi de devenir nos ambassadrices de l'avenir et de promouvoir notre profession. Quand vous joignez le réseau de votre collectivité, rappelez-vous de vous porter volontaires aux foires de la santé et aux activités locales. Présentez-vous comme le font les politiciens, provinciaux ou fédéraux, et exprimez vos opinions. Les hygiénistes dentaires sont le fer de lance du bénévolat des services de santé bucco-dentaire dans les pays en voie de développement et de l'aide à Haïti. Au cours des deux dernières années, une ingénieure hygiéniste dentaire de l'Ontario a dirigé le programme Don du cœur, dans le cadre duquel des cabinets d'hygiène dentaire privés ouvrent leurs portes et dispensent gratuitement des produits ou services le jour de la Saint-Valentin.

L'ACHD comprend aussi les défis que les jeunes affrontent en milieu de travail. Nous savons que celui-ci est difficile, car l'économie de l'offre et la demande affecte les salaires et les possibilités d'emploi des hygiénistes dentaires. N'hésitez pas à vous aventurer dans les régions urbaines à la recherche d'un poste dans un cabinet dentaire. Je vous mets au défi d'élargir vos critères de recherche d'emploi. Pensez « hors du plan officiel ».

Permettez-moi de conclure avec un verset de « The Victor » de CW Longenecker.

Les combats de la vie ne vont pas toujours

Au plus fort ou au plus vite.

Mais tôt ou tard, le gagnant est celui qui pense qu'il peut.

(notre traduction)

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Position for commercial advertisement



**Highlights of the
CDHA Board of
Directors meeting,
Montreal, QC
14–15 October 2010**

Jacki Blatz welcomed Palmer Nelson as President of CDHA for the term October 2010 to October 2011. Palmer introduced the two new Directors—Nikki Curlew of Newfoundland and Labrador, and Mandy Hayre, the Educator-Director from British Columbia—and presented them CDHA lapel pins.

The Board is on track with its search for the Executive Director of CDHA. A recruiting firm has been chosen, and the recruiting process moves forward from 18 October 2010.

New confidentiality agreements have been accepted for observers on the Board. The composition of the Board of Directors was revised in order to have the best diversity possible in its representation, and to make sure that all members of CDHA have a chance to be part of the nomination slate. A new member from the North, i.e., Northwest Territories, Nunavut, and Yukon, will be added by October 2011. Our Board Director from Quebec, Anna Maria Cuzzolini has officially resigned, and a letter will be written by President Palmer Nelson to suggest that under the CDHA bylaws a replacement be appointed or elected by the Quebec Association to send a member to the board for the remainder of Anna Maria Cuzzolini's term. A new representative will be elected to the full position for October 2011 in accordance with our bylaw.

One of CDHA's goals is to speak with a national voice. The Board has been reviewing constituent agreements with provincial counterparts. To date, Ontario is the only province without a constituent agreement with CDHA.

An Ownership Linkage plan was adopted in order to raise members' awareness that they are the proud owners of CDHA, and that they participate in the development of their profession. Furthermore, CDHA is accountable to its members as owners of their profession. To assist the Board with evaluation of its progress in achieving some of the goals of the Board's Ownership Linkage Plan, an annual opportunity will be given for all CDHA members to provide input for the development of the Board's strategic direction.

Our membership has demonstrated keen interest in CDHA's online development through increased services of technology and social networking. Online courses, network pages (Facebook, twitter and blogs) are available on the CDHA website. CDHA continues to bring our membership live and on-demand webinars such as *Oraqix*®, *Entry-To-Practice Competencies*, *Dentin Hypersensitivity*, as well as an online forum through Cochrane on fluoride toothpastes. An Oral Cancer Awareness campaign will be launched in January, and its French equivalent will be presented in March. *Working together, working for you!* is a webinar specially designed for our student membership. Addressing the many needs of private practitioners of dental hygiene in Canada is another webinar on *The Path to Private Practice* this December.

A segment of the Board meeting was scheduled for the Annual General Meeting of the Canadian Foundation of Dental Hygiene and Research Education (or CFDHRE or the Foundation). This meeting was conducted through a teleconference. Palmer introduced the Directors to the Foundation's executive officers. Dr. Laura Dempster chaired the Foundation's meetings, and invited comments and feedback from the CDHA Board of Directors. The activities of the Foundation were reviewed and accepted. The Foundation's meeting was adjourned at 2:13 p.m. keeping to its slotted time of half an hour.

Plans are in progress for CDHA's national conference, *Advancing Dental Hygiene Practice*, on 10–11 June 2011 at the Lord Nelson Hotel in Halifax, Nova Scotia.

The Board will meet again in Ottawa in early March of 2011.

CDHA's Annual General Meeting

Montreal, the afternoon of Saturday, 16 October 2010.

This was the first AGM held outside of the CDHA's office. The AGM was held in conjunction with the workshop, *A Morning in Montreal*. The Board has taken the initiative to keep to this meeting format, along with a continuing professional development component, and bring the opportunity for face to face connections to more of CDHA's owners by moving across Canada each year. This provides CDHA members from all parts of Canada an opportunity to participate and be heard. The next AGM will be in Winnipeg, Manitoba, in 2011. The CDHA *Annual Report* was presented at the AGM, and is available online at the CDHA website. It showcases all that CDHA is doing for its members and owners!



CDHA's Board of Directors, October 2010–October 2011



Palmer Nelson
President; Nova Scotia



Jacki Blatz
Past President; Alberta



Arlynn Brodie
President Elect;
British Columbia



Nikki Curlew
Newfoundland and
Labrador



Wanda Fedora
Nova Scotia



France Bourque
New Brunswick



Julie Linzel
Prince Edward Island



Sandra Lawlor
Ontario



Mary Bertone
Manitoba



Maureen
Bowerman
Saskatchewan



Mandy Hayre
Educator-Director
British Columbia



▲ A meeting of the minds in Montreal — CDHA's Board of Directors with presidents of the provincial associations.

Presidents' Meeting

Following the AGM, was the Presidents' meeting. Presidents of the provincial associations, having constituent agreements with CDHA, were invited to a forum type setting to discuss provincial achievements and issues. Attendees at this meeting were the CDHA's Board of Directors, presidents from all provinces with the exception of Ontario, representative from National Dental Hygiene Certification Board (NDHCB), and CDHA's Acting Executive Director. Doris Lavoie, the Executive Director of NDHCB gave a very enlightening presentation to the attendees regarding the work of the Certification Board. The meeting comprised Round Table discussions on different dental hygiene issues across Canada, and fielded several questions to the presidents for the CDHA Board of Directors to receive useful input on ownership issues.

The CDHA Board is committed to having a close and productive connection with CDHA members as owners of our profession and of CDHA itself. The Board's 3-year strategy for creating this connection will be launched in January 2011.

Questions posed to the presidents were:

- Do you think CDHA members in your area understand that they are the ultimate owners of CDHA as their national voice? If not, how do you think we could work together to create that understanding?
- What could be done by CDHA to foster greater professional pride?

Ownership Linkage input is used by the Board when reviewing and revising its strategic goals (Ends) for CDHA. Review and revision of its Ends take place annually, and usually at the Board's Winter meeting. All forms of Ownership input are considered.

We are listening! Thank you to all our owners for your voice!

CDHA Board of Directors



CDHA extends its thanks to P&G for their generous sponsorship of CDHA's *A Morning in Montreal* event. In support of P&G's *Rise & Shine* campaign, CDHA is pleased to donate \$1,000 to the Canadian Breast Cancer Foundation.

Continuing professional development program of 16 October 2010

CDHA expresses its appreciation to key speakers and presenters at the morning's event:

- Dr. Peter Cooney, Chief Dental Officer
- Lisette Dufour, Oral Health Promotion/Prevention Officer, Office of Chief Dental Officer
- Wendy Bebey from P&G
- Laura Myers, for helping Wendy Bebey
- Cynthia Blanchette, étudiante en hygiène dentaire
- Jessica Thomas, RDH
- Nancy Lamirande, HD



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Canada's Oral Health Report Card:

A call to action

13 August 2010, Canadian Dental Hygienists Association, 96 Centrepointe Drive, Ottawa, ON K2G 6B1

Submitted electronically to: House of Commons Standing Committee on Finance, Pre-budget consultations. FINA@parl.gc.ca

EXECUTIVE SUMMARY

The newly released *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009* serves as an oral health report card (OHRC) which gives a snapshot of the oral health status of Canadians. It is a call to action to invest in oral health. Good oral health is not experienced evenly across all segments of the population, since there is a lack of equitable access to oral health professionals, for a specific portion of the population. Canada's health system was ranked a shocking fifth of seven countries on equity issues, particularly equitable access to prescriptions and dental care. Those with the poorest oral health; the lowest education, and the lowest income have less access to an oral health provider. Between 17 and 33

per cent of low income individuals do not visit dental professionals due to the cost. Income is a strong contributor to oral health, as Canadians from lower income families have almost two times worse outcomes compared to higher income Canadians.

In Canada, dental care is costly relative to other conditions covered by Medicare. Dental care paralleled prescription drugs as the greatest component of total private health spending. In terms of costs associated with disease categories, dental care follows cardiovascular disease, and exceeds costs for respiratory disease, and cancer. Federal investment in oral health must change an ineffective, costly oral health system which treats disease after it arises, to a more cost effective system with a prevention emphasis.

RECOMMENDATIONS:

The federal government collaborates with the provinces and territories to revise the *Canadian Oral Health Strategy (COHS)*, based upon the new data in the *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009*. An integral aspect of the COHS will be a federal or provincial implementation plan, which includes, but is not limited to the following activities:

Public health human resources

- Federal government collaborates with the provincial or territorial governments to develop a comprehensive plan to provide oral health promotion and disease prevention for all Canadians, as part of the continuum of care in the *Canada Health Act*.
- Federal government invests 10 million dollars each year for a designated fund to enable the provinces to bolster public health dental hygiene human resources.

Data collection

- Incorporate an oral health component into the *Canadian Health Measures Survey*, every five years.
- In 2011, provide funding for a Canada oral health survey on infants, young children, and seniors.

First Nations and Inuit oral health

- The federal government works collaboratively with stakeholders, including First Nations and Inuit organizations to develop a comprehensive long term plan with secure and stable funding to address the oral health issues identified in the pending First Nations and Inuit oral health report.

ORAL HEALTH STATUS IN CANADA

The newly released *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009*¹ serves as an Oral Health Report Card (OHRC) which gives a snapshot of the oral health status of Canadians. Following a 30-year gap in gathering comparable data, oral health has finally registered on the radar at Health Canada. This data collection is critical for informing health policy and informing the public about oral health issues in Canada. This new OHRC demonstrates that overall, Canadians have good oral health; three out of every four Canadians annually visit a dental professional.

However, there are several caveats to this positive outcome. Good oral health is not experienced evenly across all segments of the population. The survey report did not include First Nations and Inuit health data, which will be released at a later date, and is expected to reveal very poor oral health status. Nor did the survey include data on young children, infants and seniors—populations with known high rates of oral diseases. Oral diseases and conditions are often chronic, painful, and disfiguring; together, they represent a huge economic and social burden of illness in Canada. While rarely fatal, the costs of these diseases and conditions have a large economic impact costing Canadians the chance to contribute to society through work and volunteerism. An estimated total of 40.36 million hours were lost from normal activities, school or work in the previous 12 months due to check-ups or problems with teeth.¹ Some of the consequences of dental decay are acute and involve chronic pain, interference with eating, sleeping and proper growth, tooth loss, and compromised general health. In addition, there is a connection between oral diseases and other diseases, such as diabetes, lung, and heart diseases. For example, if you have two co-existing conditions, periodontal disease and diabetes, it is harder for you to control your blood sugar than it is for someone who does not have periodontal disease. Furthermore, oral disease is the most common chronic disease in children and adolescents in North America, and is one of the main reasons that children receive a general anesthetic.²

One further caveat is the lack of equitable access to oral health professionals, for a specific portion of the population. The survey report concludes that those with the poorest oral health, the lowest education, and the lowest income have less access to an oral health provider.¹ Having no insurance is two and a half times more common in the low income families (49.8%) compared to the higher income families (19.8%).¹ Having no insurance is a significant factor in making decisions to seek care and to follow up on recommendations for treatment. The report indicates that 17% of Canadians did not make an appointment to see a dental professional due to the cost, and 16% stated that they avoided getting all their recommended treatment due to the cost. In addition, 47% of lower income Canadians needed one or more types of treatment, compared to 26% of

those with higher incomes.¹ Highest rates of avoiding visiting because of costs occur among young adults aged 20 to 39 with no insurance (50%) and low incomes. The highest proportion of those with oral pain is found among young adults with lower incomes (19.8%) and among adults aged 40–50 years who are in the lower income category (20.3%). Income is a strong contributor to oral health, as Canadians from lower income families have almost two times worse outcomes compared to higher income Canadians.

Further evidence for Canada's poor record in providing equitable oral healthcare comes from a 2010 Commonwealth Fund report.³ Canada's health system ranked a shocking fifth of seven countries, on equity issues, particularly on equitable access to prescriptions and dental care.³ The report also notes that low income Canadians often forego medical treatment because of cost barriers. In 2007, 33% of individuals with below average incomes, and 13% of those with above average incomes needed dental care, but did not see a dentist because of cost in the past year.³ Compared with the Netherlands and several other European countries, where the universal health system includes prescription drugs and dental care, Canada's health system is inequitable.

WHO PAYS FOR ORAL HEALTHCARE IN CANADA?

Oral diseases are linked with general health issues, such as diabetes, respiratory and cardiovascular diseases. However, the facts about oral healthcare expenses are not common knowledge. Canada spends 10 billion dollars annually on oral healthcare; and in terms of costs associated with disease categories, it follows cardiovascular disease, and exceeds costs for respiratory disease, and cancer.⁴ In 2009, dental care paralleled prescription drugs as the greatest component of total private health spending.⁴ In 2009, 6.3 billion dollars was spent on dental care in Canada.⁵ The largest portion of spending (94%) came from private sources (out of pocket spending and private dental plans). Dental care in Canada is costly relative to other conditions covered by Medicare. From 1960 to 2008, per capita expenditures on dental care increased from \$6.16 to \$361.62.

There may be a misperception in Canada that healthcare is predominantly publicly funded. Public funding, in 2009 in Canada, covered only 70 per cent of health spending, less than the average of 73 per cent for OECD countries.⁶ This rating places Canada among the lowest in its coverage of total healthcare costs. The UK, Sweden, Japan, France, and Germany have higher public share of total spending than Canada.⁷ When it comes to dental care, many European nations include dental care as part of national health plans; however, in Canada public funding is a paltry 6 per cent of all dental expenditures. Out of this 6 per cent, the federal government contributes 40 per cent of the total and the provinces 60 per cent. The high cost of dental care, the lack of access for the neediest, and the existing

lack of investment in oral health by federal and provincial governments point to the need to create better oral health policies. Federal investment in oral health must refocus an ineffective, costly oral health system which treats disease after it arises, to a more cost effective system with a prevention emphasis.

POLICY SOLUTIONS: A CALL TO ACTION ON ORAL HEALTH

The *Canadian Oral Health Strategy* (COHS) was developed in 2005, through a wide consultation process involving oral health professionals, health organizations, and provincial or territorial governments. The positive aspects of the COHS include its identification of measurable, specific goals and objectives for the year 2010. The limitations of COHS include the absence of an implementation plan.

The OHRC is a call to action to invest in oral health, and the *Canadian Oral Health Strategy* must be revised to reflect the OHRC. A new strategy must be accompanied by an implementation plan for federal and provincial governments. There are a number of areas where the federal government can make an important contribution to the oral health of Canadians. This brief focuses on three main areas:

- Public health human resources
- Data collection and research
- First Nations and Inuit oral health

Public health human resources

Despite the large and increasing resources expended on dental care, of which public programs remain a very small part, utilization of dental care is inconsistent with the needs of the population. Those with the highest need—the low income group—are not receiving the care they require. The federal government must address the relationship between poor oral health and socioeconomic status, and address the populations with high need.

CDHA calls on the federal government to work collaboratively with the provincial and territorial governments to develop a comprehensive plan to provide public health programs that focus on oral health promotion and disease prevention. The timing is right, as we have started to witness a growing lobby from community groups to expand oral health coverage, and the physician community has become more interested in oral health based on the tie-in with systemic health.⁸ The father of Medicare, Tommy Douglas, recommended that Medicare be implemented in two stages; the first was public payment based on treating illness in hospitals, and the second stage was a new system, designed as much as possible to keep people healthy.⁹

Improving Canadians oral health requires an investment in the right kind of services and programs. Oral health services in Canada presently focus on treating disease after it arises, but this is a costly alternative, and there is a pressing need to decrease the growth rate of oral health services

to support economic recovery. A public health prevention model is less costly than treating chronic oral diseases after they develop. The federal government must work with the provinces to ensure secure and stable funding for public oral health.

In order to make a shift from a treatment model to a prevention model, we need to examine health human resources. At the present time, there are 42,633 oral health-care providers in Canada; however, there are only 718 in public health (453 dental hygienists) creating a ratio of 45,961 Canadians to one oral public health professional.¹ To support a 50 per cent increase in the present number of dental hygiene professionals, there is a need to invest 10 million dollars each year in public health dental hygiene human resources. As members of the public health team, dental hygienists focus on a wellness approach, using health promotion and disease prevention. Some examples of dental hygiene public health programs include prenatal, preschool and school age caries prevention programs, oral disease screening and dental sealant programs. Dental hygienists can promote the integration of federal, provincial and local strategies, and serve as the linking agent for public-private collaborations.

Data collection

Until this year, Canada had not collected oral health data for thirty years. Such data are critical to adequately develop oral health policies and programs. To avoid a future gap in data collection, the federal government must make a commitment to invest in oral health data collection on a regular basis. An oral health component must be incorporated in the *Canadian Health Measures Survey* on a 5-year cycle. Since there are significant population gaps in the survey released this year, data collection next year must include a Canada wide survey of infants, young children under the age of 6 years, and seniors. It is important to survey infants and young children, as the Canadian Association of Paediatric Health Centres declares early childhood caries (ECC = tooth decay) as the most common chronic childhood disease, which they label a pandemic in North America.¹⁰ It is also important to survey seniors, as a larger number of seniors are keeping their teeth as they age; however, physical and mental health complications, medication, and decreased dexterity significantly compromise their oral health.

First Nations and Inuit oral health

First Nations and Inuit peoples' oral health was surveyed recently, and the two reports reflecting this data will be released in the Fall. The 2010 report by the Standing Committee on Health draws attention to the pressing needs of these communities with their recommendation for secure and stable funding for aboriginal health human resources in the North.¹¹ CDHA calls on the federal government to collaborate with stakeholders, including First Nations and

Inuit organizations to develop a comprehensive long term plan to address the oral health issues which will be identified in the pending First Nations and Inuit oral health reports.

RECOMMENDATIONS

The federal government collaborates with the provinces and territories to revise the *Canadian Oral Health Strategy* (COHS), based upon the new data in the *Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009*. An integral aspect of the COHS will be a federal and provincial implementation plan, which includes, but is not limited to the following activities:

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CIHR is able to fund a master's award for \$17,500 in 2011, as long as the CFDHRE raises \$8,750. You are now able to be a part of doubling the amount of funding we give toward research. Doubled research. Doubled results. Doubled progress. But we need your help to make this happen.

With your gift, you are helping to fuel important and innovative research within the dental hygiene community. These awards and grants are only possible because of people like you. Your donation helps to create more opportunities to advance oral health and the dental hygiene profession. The research impacts all dental hygienists irrespective of area of practice, as we all benefit from the knowledge gained. You are helping to provide awards your colleagues can apply for without competing with researchers in other disciplines. And making your tax deductible donation today is one more way you can help improve the oral health of Canadians.

As a researcher, I know how competitive it is to obtain funding for oral health research. As a dental hygiene professional, you understand that advances in oral health research are vital in improving the well being of Canadians and that's why now is the time to invest in the research carried out by your dental hygiene colleagues.

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L'Association canadienne des hygiénistes dentaires est heureuse d'annoncer le Prix de reconnaissance pour les programmes en hygiène dentaire. Ce prix est conçu afin de reconnaître les programmes en hygiène dentaire dont 100 % du corps professoral est membre de l'ACHD. Un certificat de reconnaissance sera remis pour mettre à l'honneur les programmes dont les membres font preuve d'un engagement exceptionnel envers leur association nationale et jouent un rôle de modèles professionnels pour leurs étudiants et étudiantes. La date limite pour les inscriptions est le **14 janvier 2011**. Les détails concernant les procédures d'inscription sont affichés sur le site Web réservé aux membres de l'ACHD, à la section « Awards & Recognition ».



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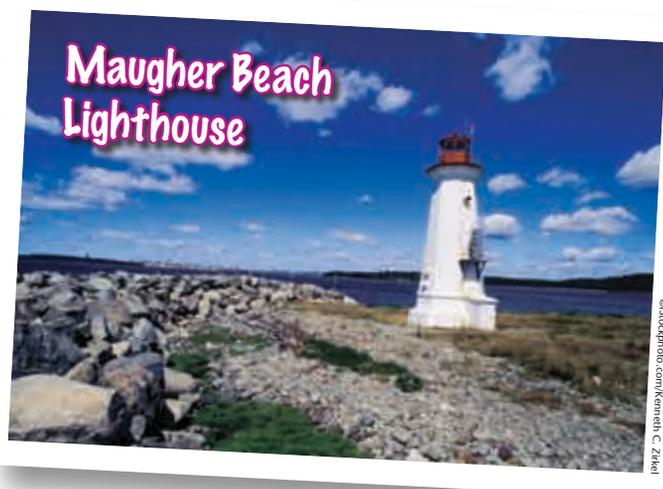
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CDHA Dental Hygiene Recognition Program Programme de reconnaissance en hygiène dentaire de l'ACHD

CDHA is pleased to announce the 2010 Dental Hygiene Recognition Program. This program, made possible through the contributions of CDHA's Corporate Partners, is designed to recognize distinctive accomplishments of CDHA members, including both practising and student dental hygienists. Entry details are available on the CDHA members' web site, in the *Awards & Recognition* section.

L'ACHD est heureuse de présenter le programme de reconnaissance en hygiène dentaire pour l'année 2010. Ce programme, rendu possible grâce aux dons des entreprises partenaires de l'ACHD, est conçu pour reconnaître les réalisations distinctives des hygiénistes dentaires et des étudiantes et étudiants en hygiène dentaire membres de l'ACHD. Les détails concernant les procédures d'inscription sont affichés sur le site Web réservé aux membres de l'ACHD, à la section *Awards & Recognition*.

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CDHA achievement prize in participation with Sunstar G·U·M

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Un prix de 2 000 \$ offert à un étudiant ou une étudiante, inscrit(e) en dernière année d'un programme en hygiène dentaire, qui a surmonté un défi personnel important durant sa formation en hygiène dentaire.



CDHA global health initiative prize in participation with Sunstar G·U·M

One \$3,000 prize in recognition of a registered dental hygienist who has committed to volunteering as part of an initiative to provide oral health related services to persons in a disadvantaged community or country.

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Un prix de 3 000 \$ offert à un ou une hygiéniste dentaire autorisé(e) qui s'est engagé(e) comme bénévole dans un programme visant à offrir des services liés à la santé buccodentaire à des personnes faisant partie d'une communauté ou d'un pays défavorisé.



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Application deadline is **14 January 2011**. CDHA will announce the prize winners in April 2011 during the Oral Health Month. La date butoir pour soumettre les demandes d'inscription aux différents prix est le **14 janvier 2011**. L'ACHD fera une annonce publique des gagnants en avril 2011 au cours du mois de santé buccodentaire.

Evidence based practice in Dental Hygiene: Exploring the enhancers and barriers across disciplines

Joanna Asadoorian*, AAS(DH), BScD(DH), MSc; Brenda Hearson[§], RN, MN, CHPCN(C); Satyendra Satyanarayana^Δ, BSc, MSc, MD, FRCPC; Jane Ursel[‡], PhD

ABSTRACT

Background: It is important for healthcare providers, including dental hygienists, to appropriately base practice on current evidence to improve health outcomes. Transferring knowledge from the research environment to practice falls within the broad research field referred to as knowledge translation. Various enhancers and barriers to using current evidence in practice have been reported on, but cross discipline investigations have largely been absent from the literature. The purpose of this paper is to present the findings of a qualitative study that explored and compared dental hygienists' understanding and experiences with evidence based practice (EBP) to those of nurses and psychiatrists. **Methods:** Researchers conducted individual interviews with dental hygienists, nurses and psychiatrists using a general interview guide that included a discipline specific scenario designed to investigate clinicians' experiences implementing EBP. Because of the exploratory nature of the study, saturation of data was not attempted. Guided by a grounded theory approach, researchers used thematic analysis to determine the enhancers and barriers to EBP and compared major themes across the professions. **Results:** The majority of participants, including dental hygienists, demonstrated an understanding of EBP and identified enhancers and barriers to implementing EBP. Several major themes acting as enhancers and barriers to EBP emerged and revealed both differences and similarities between the dental hygienists and the other disciplines. **Discussion and Conclusion:** While exploratory, this research is important in understanding the role of the practice milieu in relation to individual practitioner characteristics in implementing evidence into practice. While dental hygienists encountered unique structural challenges in implementing EBP, they also reported difficulties similar to the other disciplines, particularly nursing. The study's findings were important in directing dental hygiene research providing a departure point for a large multi phase study currently underway specifically examining structural influences on dental hygiene decision making and practice change.

RÉSUMÉ

Contexte : Il importe que les dispensateurs de soins de santé, y compris les hygiénistes dentaires, fondent adéquatement leur pratique sur les données factuelles pour améliorer la santé. Le transfert des connaissances du milieu de la recherche à celui de la pratique relève d'un vaste champ de recherche, celui de la transmission de la connaissance. On a signalé divers stimulateurs et diverses barrières quant à l'utilisation des données factuelles, mais la littérature fait très peu état d'investigations interdisciplinaires. Le présent article présente donc les résultats d'une étude qualitative qui a fouillé et comparé la compréhension et l'expérience de la pratique factuelle (PF) des hygiénistes dentaires en regard de celles des infirmières et des psychiatres. **Méthodes :** La recherche a commencé par des entrevues individuelles avec des hygiénistes dentaires, des infirmières et des psychiatres, suivant un guide général d'entrevue comprenant un scénario disciplinaire spécifique d'investigation sur l'expérience des cliniciens appliquant la PF. Vu la nature exploratrice de l'étude, l'on n'a pas recherché la saturation des données. Dans une perspective de théorie fondée sur les faits, les chercheurs ont utilisé une perspective d'analyse thématique pour déterminer les simulateurs et les barrières affectant la PF et comparé les principaux thèmes entre les professions. **Résultats :** La majorité des participants, y compris les hygiénistes dentaires, ont montré qu'ils/elles comprenaient la PF et ont identifié les simulateurs et les barrières quant à l'application de la PF. Plusieurs thèmes principaux agissant comme simulateurs et barrières de la PF émergèrent, révélant des différences et des similarités entre les hygiénistes dentaires et les autres disciplines. **Discussion et conclusion :** Bien qu'exploratrice, cette recherche est importante pour comprendre le rôle du milieu de pratique par rapport aux caractéristiques des coutumes individuelles dans l'application des données probantes à la pratique. Si elles ont rencontré des défis structurels uniques dans l'application de la PF, les hygiénistes dentaires ont aussi signalé des difficultés semblables à celles des autres disciplines, et particulièrement les infirmières. Les résultats de l'étude furent importants pour l'orientation de la recherche en hygiène dentaire, offrant un point de départ pour une étude plus ample, à plusieurs volets, actuellement en cours, concernant l'influence des structures sur la prise de décision et l'évolution de la pratique.

Key words: evidence based practice, qualitative analysis, cross discipline comparison, knowledge translation

INTRODUCTION AND PURPOSE

Applying current research findings to dental hygiene practice has the potential to improve the delivery and outcomes of oral healthcare by informing dental hygiene decision making and necessitating positive change.¹ While research in this area with dental hygienists is limited, studies with other healthcare providers suggest that a considerable lag time exists between the generation of new research findings and their application to practice.²⁻⁶ Delays in implementing more effective dental hygiene interventions and the discontinuation of ineffective, unnecessary or harmful interventions can have negative implications for clients.⁷ This has been the impetus for knowledge translation research—the comprehensive field that addresses the gap between current theory and practice.⁸

Responding to the theory–practice gap, the evidence based practice (EBP) movement emerged as a precursor to knowledge translation research in order to minimize variation in care and improve healthcare quality.⁹⁻¹¹ The

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Discipline	Discipline specific scenario for discussion
Dental Hygiene	EBP for client and tooth surfaces selection requiring mechanical polishing
Nursing	EBP for assessment and selection of best route of analgesia administration for end-of-life pain control
Psychiatry	EBP for treatment of depression in children and adolescents

Box 1. Discipline specific scenarios for interviewing.

contemporary understanding of EBP can be defined as: *the integration of best research evidence with clinical expertise and patient values.*^{7-9,11} While this definition clearly encompasses practitioner expertise and the client preferences, EBP has received criticism for its potential to be used by external groups to limit decision making autonomy of practitioners.^{12,13} The EBP movement began in medicine and followed in nursing, dentistry and other healthcare professions, and, more recently, several references to evidence based decision making and practice have been made specifically in the dental hygiene literature.^{7,10,11}

Since the emergence of EBP, the healthcare literature has identified both barriers and enhancers to implementing the approach into clinical settings.^{9,14} This interdisciplinary, qualitative study is unique in that its purpose was to explore the integration of EBP by frontline clinicians from three distinct healthcare professions, and compare their experiences. The study examined dental hygienists, nurses and psychiatrists, and this paper focuses on the dental hygiene experience in particular.

METHODS

A grounded theory approach, as described by Patton¹⁵ and Strauss and Corbin,¹⁶ guided by a social theoretical lens provided the overall theoretical framework for this qualitative study. Thus, the researchers immersed themselves in the raw narrative data, and inductively allowed meaning to emerge.¹⁵ The constructs, barriers, and enhancers to EBP, served as sensitizing concepts for the study providing direction and focus for the analysis.¹⁵ Such an approach provided the researchers with a systematic way to deal with the large amount of narrative data by providing a framework for the subsequent coding procedure and thematic analysis.¹⁵

Human ethics approval by the Psychology/Sociology Research Ethics Board, University of Manitoba, which operates according to the Tri-Council Policy Statement, was obtained prior to proceeding with the study in November 2005. The confidentiality and anonymity of participants were ensured using appropriate security measures of the data. The study subjects agreed to participate in individual, audio taped, face to face interviews held in mutually agreeable locations.

Due to the exploratory nature of the research, the three investigators limited themselves to interview three or four individuals from their own health profession, dental hygiene, nursing, and psychiatry respectively, with no attempt at saturation, which is the point where no new

ideas/themes emerge from the data.¹⁵ The investigators obtained a purposeful sample of 10 health professionals (n = 3 dental hygienists, n = 4 nurses, n = 3 psychiatrists) to access a variety of practitioners. All participants provided written consent to participate in the study after a discussion surrounding the project.

For the interviews, a semi structured approach was used employing a general interview guide developed and utilized by the three researchers.¹⁵ The interview guide first directed questioning about the dental hygienists and other participants' general understanding of EBP. Then, in order to generate rich discussion about implementing EBP, a discipline specific practice scenario was presented (Box 1) based on a current practice issue where considerable variation in care reportedly exists.

Subsequent to data collection, the researchers utilized a systematic, three staged analysis for the study. First, after researchers individually conducted and transcribed interviews, each investigator independently organized data from all interviews into substantive codes, which fell into the predetermined sensitizing concepts of enhancers and barriers to EBP.^{15,17,18}

Second, the dental hygiene investigator, together with the other researchers, identified emergent themes from the coded data.^{15,17} Finally, a comparison of the experiences with EBP between the dental hygiene participants and the nurse and psychiatry practitioners was conducted using Ayres and coworkers' comparative approach as a model.¹⁷ Throughout the analytic process, as indicated in qualitative techniques, coding, and emerging themes were compared, discussed and negotiated amongst the researchers to reach consensus. The findings are considered preliminary because of the exploratory nature of the study and lack of saturation of data.

RESULTS

The dental hygiene and other participants' interviews ranged from 30–75 minutes in length generating over 100 pages of transcribed data in total. Participants were predominantly female (n = 7) and overall ranged in age from the mid 20s to the mid 50s. The participants had a minimum of four years of university education, with the exception of one dental hygiene graduate who had three years. Length of practice ranged widely from 1–29 years with the majority of the participants demonstrating a wide range of practice experience.

The understanding of the concept of EBP had little variation across individuals and disciplines. All participants, with the exception of one dental hygienist, had some understanding of the concept. Of those participants familiar with the term EBP, all identified the element of research evidence in their understanding. It was interesting that only one nurse recognized that clinical expertise and patient values are also considered to be components of the term, but neither the dental hygiene nor the psychiatry participants identified these other aspects in their understandings of EBP.

Under the predetermined sensitizing concepts, enhancers and barriers to EBP, together the investigators identified over fifty substantive codes. Clustering these codes resulted in the emergence of seven key themes (Table 1), which were

Individual knowledge and attitudes				Structural characteristics			
	Individual characteristics	Views of evidence	Commitment levels	Practice hierarchy	Practice philosophy	Resources	Practice characteristics
Barriers	All	All (strongly endorsed by P)	All (weakly endorsed)	DH, N	All (strongly endorsed especially DH and N)	All (strongly endorsed)	All (weakly endorsed)
Enhancers	All	All	All (strongly endorsed)	All	All (weakly endorsed)	All (weakly endorsed; more with P, N)	All (strongly endorsed)

DH=dental hygienists, N=nurses, P=psychiatrists

Table 1. Major themes and related impact on disciplines.

observed to fall within two major categories: 1) individual knowledge and attitudes; and 2) structural characteristics of the workplace. Discipline specific quotations are noted as: dental hygienists (DH), nurses (N), psychiatrists (P).

Category I: Individual knowledge and attitudes

For the dental hygiene participants and the other health-care professions, individual factors appeared to be largely attitudinal while age and years in practice played a smaller role in shaping the implementation of EBP. Three major themes were revealed across all of the disciplines, and contributed both as enhancers and barriers to EBP—individual characteristics, views about evidence, and commitment level.

Individual characteristics

For the dental hygienists, nurses, and psychiatrists, individual characteristics such as age, experience, knowledge and attitudes to practice were identified as both potential enhancers and barriers to implementing EBP, and these were all reported within and across disciplines. Both experience and attitude were reported unanimously by all participants. For example, an individual's willingness to change was reported with dental hygienists and across the other disciplines. One nurse articulated the challenges that making changes to one's practice presents:

... it took a while for people to get comfortable... there was a lot of talking with other staff members. I don't know if I want to do it, etc... N3

Individuals who were reportedly more open to change and interested in continuing education had an orientation that enhances the implementation of EBP while opposing attitudes were perceived as barriers. For example, one dental hygienist shared how her/his experience in using continuing education in practice enhanced EBP:

Some of us go to more continuing education...and will bring that back and discuss it with everybody else. DH2

On the other hand, the following nurse identified the challenges surrounding the differing abilities of nurses in the unit to use evidence effectively, which contributed to barriers to using EBP:

There is a wide range in nurses' ability to read articles, to interpret results. N4

Views and attitudes about evidence

Issues surrounding evidence were diverse and included factors surrounding its quality, credibility, and availability, and these issues were perceived as both enhancers and barriers to EBP. Interestingly, the dental hygienists made no reference to any limitations surrounding evidence, but, conversely, the psychiatrists were very articulate about perceived limitations to their evidence base, and this was viewed as a significant barrier to their implementation of EBP. For example, across the group of psychiatrists, the challenge in reading and applying the overwhelming amount of literature available was reported.

In addition, all of the psychiatrists in the study shared some level of mistrust of research publications and the "evidence". This mistrust was only reported from the psychiatrists, and was centred on the funding of studies by pharmaceutical companies and negative research findings not being published (publication bias). The published material was therefore potentially misleading. The psychiatry group exemplified this perception in this quote:

I actually have some very serious concerns... that [medical] evidence may be really flawed at the moment because we don't have access to all the information... some of the studies that were published were misleading, in that they did not disclose all of the information... P1

The psychiatrist participants were very cognizant of the limitations of their research base. It was again only they who mentioned a perception that EBP diminished the "art" of care, that there was a lack of evidence for many therapies that they typically employ, and that too much emphasis was placed on randomized controlled trials (RCTs) to the neglect of other forms of research and evidence. One psychiatrist shared his views:

...if you restrict this to RCTs then clearly evidence-based medicine would be a limited field... you're going to have to... accept that there's going to be a variety of forms of evidence in order to truly apply it in a comprehensive clinical way to all clinicians everywhere. P1

While again not mentioned by the dental hygienists, both nursing and psychiatry disciplines reported a lack of quality evidence being available. All of the disciplines, including dental hygiene, noted difficulties in applying evidence to practice that largely surrounded various

attitudinal and structural influences. A dental hygienist and a nurse state respectively:

...that was a big barrier, because I couldn't really provide the patients the care that they needed because the dentist didn't want me to do too much... . DH1

We would look something up; but it's a busy unit. You're there for twelve hours, and it's hard to stop and research something...time is an issue. It's hard...to do that on your own time. N1

Conversely, the availability of evidence, particularly with the advent of online resources, was reported as an enhancer for all psychiatrists, and also across disciplines with some of the nurses taking note of enhanced accessibility. No dental hygienists in the study mentioned this as a potential enhancer to EBP. Further, the overall quality and presentation of the evidence was described among the psychiatrists as an enhancer for practising according to evidence. For example, the use of review articles, conference presentations and grand rounds reportedly enhanced EBP.

Commitment levels

One's commitment level to their work was another important individual theme that emerged from the data, and the dental hygienists made several comments in this area. The most common enhancer was an individual's commitment to continuing education activity, which was reported by dental hygienists and among the other disciplines. A nurse describes an example:

We had many older nurses who would come in to journal club even on their days off as they were very committed. They would come in on their own time. N4

The remaining commitment enhancers were isolated examples occurring within disciplines. For example, one dental hygienist felt that full time work increased one's commitment and enhanced EBP. An individual nurse reported that young nurses were more committed to EBP and the associate changes that are required because of it.

Conversely, a lack of commitment to work was viewed as a barrier to EBP, but examples of this were isolated within disciplines. For instance, one dental hygienist reported that part-time practitioners had lower commitment levels to their careers and similarly to EBP. One nurse felt that younger practitioners were too busy with their young families, and therefore were less committed to EBP.

Category II: Structural characteristics of the workplace

While individual characteristics and attitudes were identified as important enhancers and barriers to EBP, often these characteristics operated through one's workplace culture. Four themes emerged falling within the *Structural Characteristics* category that appeared to have a significant impact on EBP of dental hygienists along with the other two healthcare disciplines; these were—practice hierarchy, practice philosophy, practice characteristics, and resources. These themes, like those in Category I, operated as both enhancers and barriers to EBP.

Hierarchical practice structure

The practice organizational hierarchy had a differential impact on these three healthcare disciplines based on their positioning within the hierarchy and associated autonomy. Some of the dental hygienists and nurses indicated that their hierarchal location was a barrier to EBP, while the psychiatrists did not. The dental hygienists were frustrated in that their autonomy was not only diminished by the employing dentist but also by non clinical support staff such as administrative workers. For nurses, it was predominantly the physicians who were viewed as having authority over their clinical actions. A dental hygienist and a nurse state respectively:

I'm told by the office manager at times how I'm supposed to do things. And we've had instances where I've told her she's not clinical, so she has no right to tell me how to treat my patients... even the [dentists' clinical] assistants have told me what to do sometimes... . DH1

I think the problem is what our doctors order, we have to do what they order... because we're not getting [evidence based recommendations] from them then we're not free ourselves to go and do it. N1

Practice philosophy

The overall practice philosophy was also often perceived as a barrier to EBP by the dental hygienists and nurses. The dental hygienists in particular experienced significant challenges in this area. They felt non reimbursable interventions, such as preventive services like oral hygiene instruction, extra oral examinations, and tobacco cessation counselling were underutilized despite evidence supporting their use. This highlighted the dental hygienists' perception that there is an overwhelming monetary preoccupation rather than a focus on client centred care, and this priority sometimes conflicted with the utilization of evidence. One dental hygienist shared the following:

It's just automatic that you use the full [billing of a procedure]... because it's something more that [the employer/dentist] can bill ... that's pretty much the number one barrier... you don't even need it, but you just do it anyways because it's a charge that goes through for the patient to get money... . DH3

The practice philosophy also contributed to continued reliance on tradition and habitual care delivery. For example, both dental hygienists and nurses indicated that practice philosophy was influenced by the comfort level of practitioners with certain procedures rather than on evidence. Conformity was valued by the practice overall regardless of whether the interventions were evidence based or not. This is reflected in the following statement:

I think there is an idea... it's just easier to keep doing something the way that we do it. It's more work to change. N1

Dental hygienists along with the other professions reported practice philosophies that valued customary care, and were committed to sustaining the status quo. This was particularly consistent with the dental hygienists and nurses who described other providers in their organization as

reluctant to change and committed to sustaining habitual practice behaviours.

Conversely, practice philosophy was also interpreted as an enhancer to EBP in some circumstances. For example, some dental hygienists and nurses reported that their workplace held client centred care as an overall practice goal, and that this practice value supported EBP. Similarly, all nurses, some dental hygienists, and one psychiatrist reported when staff goals were philosophically aligned with EBP, it provided further support for its application. A psychiatrist explained:

I am blessed with the luxury of working in a teaching hospital where I and my colleagues share information from conferences and from journals... . P2

Resources

Lack of resources has been a commonly reported finding in the healthcare literature for failure to use EBP,¹⁹ and in this study, scarce resources were similarly identified as a barrier to implementing EBP. For example, under staffing and heavy workloads were found to impede practitioner innovation and change. While apparently less of an issue for dental hygienists as only one mentioned this barrier, all of the nurses and some of the psychiatrists did report this as a limitation. A nurse described the situation in this way:

... staff is so overworked right now. They are so stressed out with the heavy level of care that they are just at the level where they are burned out...many of these things [learning towards EBP] are expected to be done on work-time, but in this day and age, they are already overloaded with their work. N3

In addition, a dental hygienist and a nurse respectively reported that remote practice locations and a lack of support for change were barriers to EBP. Other resource barriers found across the disciplines included a lack of equipment and financial support.

While these resource issues posed major barriers to implementing EBP, increasing accessibility to computers enhanced EBP. Further to this, nurses discussed that access to specialty services and clinical nurse specialists were influential as enhancers for EBP. However, the nurses did note that educators were increasingly being used to do more general nursing duties as opposed to their original intent, research, education, and implementing change, but they were still perceived as facilitating EBP and change.

Practice characteristics

Practice characteristics represented the fourth structural theme affecting EBP. Dental hygienists along with the other disciplines were well aligned in that there was considerable agreement over what practice characteristics favourably influenced the participants' ability to implement EBP. Specifically, all but one participant indicated that positive collegial attitudes to EBP represented one of the greatest enhancers. This factor was interpreted as encompassing supportive leadership, having common goals among staff and a perception of "strength in numbers" for supporting EBP. A nurse reported:

...other staff members saw that it was effective, by actually using it and trialing it...That helped the modelling. N3

In addition, practice linked in some way to a teaching institution was associated with EBP, and this was found across all disciplines including the dental hygienists. Further, both working in a respectful workplace and having open communication enhanced the application of EBP within and across disciplines. Finally, all of the nurses and most of the dental hygienists felt that organizations having good staff morale supported EBP; thus, improving the sense of teamwork within the practice contributed to EBP.

Practice characteristics also acted as barriers to EBP, but these were fewer and less commonly recognized by participants. Some examples identified by both dental hygienists and nurses included a lack of leadership, belonging to a small staff, a lack of respect, negative staffing issues and poor staff attitudes and morale, which all presented obstacles to EBP. Interestingly, none of these barriers were reported across all three disciplines, and the psychiatrists did not note any.

DISCUSSION AND CONCLUSION

The unique aspect of this study is the comparison of participants' experiences with EBP across three distinct health professions, and particularly the inclusion of dental hygiene. Dental hygiene practice presents unique features relative to nursing and psychiatry in that the former largely operates within a privately funded and delivered healthcare system. Despite this, many similarities were revealed as occurring across the three disciplines.

This study demonstrated that both individual factors and workplace structure act together as enhancers and barriers to EBP, and, while saturation was not attempted for this study, the findings are consistent with those of others.^{9,13,19} These research results call attention to the complex interplay between healthcare providers' individual characteristics, and the structural context they practice within. Awareness of this relationship suggests that further examination of the dynamic would develop an improved understanding of the knowledge translation process overall.

Of the differences found between healthcare professions, in the first major category identified—individual characteristics and attitudes—a key distinction that emerged was attitude to evidence. The psychiatrists had some level of mistrust of research publications and the 'evidence'. However, participants in the other two professions did not voice these concerns. From a dental hygiene perspective, this non apprehension may be due to inexperience in using research evidence in decision making and a heavier reliance on expert opinion through continuing education activity, or alternately, may stem directly from the state of dental hygiene evidence itself.

Within the second major category—structural characteristics of the workplace—two main distinguishing factors were revealed between the professions: first, the practitioner's position in the workplace hierarchy and, second, the profession's location in the public or private sector. In the first case, the higher the practitioners' position in the workplace hierarchy, the fewer the impediments were

reportedly encountered in implementing EBP. Thus, the dental hygienists and nurses had to similarly negotiate with practice superiors, dentists, and physicians respectively to introduce evidence based changes while psychiatrists did not encounter this encumbrance. Interestingly, for the dental hygienists, other staff acted as authoritative “designates” having superiority over dental hygienists’ decision making and yielding further struggles in implementing EBP. Regarding the second factor, dental hygienists, the only profession practising primarily in the private sector, it was a case of double jeopardy; they were not only lower in the practice hierarchy but they also encountered a practice profit motive that acted as an impediment to their ability to implement EBP.

Reflecting on similarities across the professions, individual characteristics such as positive attitudes and a commitment to continuing one’s education emerged as common enhancers to EBP. Of the similarities surrounding structural characteristics, three factors had a related impact on practitioners in all professions: location in a teaching environment, resource availability, and having supportive colleagues and practice conditions. All of the practitioners in this study, including the dental hygienists who were directly or indirectly associated with a teaching institution, indicated that having this affiliation significantly enhanced EBP. Similarly, practitioners across all three professions expressed that having the necessary resources was a critical factor in their ability to introduce EBP changes. Finally, all practitioners cited supportive colleagues and having common practice values and goals were enhancers for EBP. Conversely, practice philosophies that esteemed tradition and maintaining the status quo were consistent barriers to EBP for all professions.

Recognizing that the implementation of EBP typically requires alterations to practise, these findings suggest that a supportive work culture may have a positive impact on dental hygienists’ capacity for EBP regardless of individual characteristics. However, the idea threading through many of the major themes was that change requires hard work. Regardless of the potential improvements in healthcare that may be realized through implementing EBP, continuing with existing practice and conforming to expectations is often a less demanding option for healthcare workers. Compliance with the status quo is reinforced through the work context, which includes the influences of one’s superiors, peers and clients. Therefore, the enhancers identified for implementing EBP will need to be particularly compelling to positively influence changes in dental hygiene practice.

In addition to the inherent differences between these three health disciplines, it would be remiss not to acknowledge their associated educational backgrounds, practice structures and cultures, socialization processes, and gender mixes. However, given the increasing interprofessional nature of today’s healthcare settings, understanding the differences, similarities and interface among disciplines is important in revealing influential factors that promote EBP and knowledge translation in general. While the

main limitation of this study is the small sample size, as an exploratory study, the findings have been found to be instructive for future dental hygiene research. In particular, further research investigating the contextual aspects of decision making is warranted to gain insight into these influences, and has been largely absent in knowledge translation research. This study has provided a departure point for a larger multiphased study being conducted with dental hygienists directly investigating the social–structural world of dental hygiene decision making.

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Standard article

Orban B, Manella VB. A macroscopic and microscopic study of instruments designed for root planing. *J Periodontol.* 1956;27:120-35.

Volume with supplement

Orban B, Manella VB. A macroscopic and microscopic study of instruments designed for root planing. *J Periodontol.* 1956;27 Suppl 7:S6-12.

Conference proceedings – abstract

Austin C, Hamilton JC, Austin TL. Factors affecting the efficacy of air abrasion [abstract]. *J Dent Res.* 2001;80(Special issue):37.

Organization as author

Canadian Dental Hygienists Association. Policy framework for dental hygiene education in Canada. *Probe.* 1998;32(3):105-7.

Books and other monographs

Personal authors

Hooymann NR, Kiyak HA. *Social gerontology: a multidisciplinary perspective.* 6th ed. Boston: Allyn & Bacon; 2002.

Editors as authors

Cairns, J Jr, Niederlehner BR, Orvosm DR, editors. *Predicting ecosystem risk.* Princeton (NJ): Princeton Scientific Publications; 1992.

No author

What is your role in the profession? [editorial] *J Dent Topics.* 1999;43:16-7.

Chapter in book

Weinstein L, Swartz MN. Pathological properties of invading organisms. In: Soderman WA Jr, Soderman WA, editors. *Pathological physiology: mechanisms of disease.* Philadelphia: WB Saunders; 1974. p. 457-72.

Conference paper

Calder BL, Sawatzky J. A team approach: providing off-campus baccalaureate programs for nurses. In: Doe AA, Smith BB, editors. Proceedings of the 9th Annual Conference on Distance Teaching and Learning; 1993 Sep 13-15; Ann Arbor, MI. Madison (WI): Ann Arbor Publishers; 1993. p. 23-26.

Scientific or technical report

Murray J, Zelmer M, Antia Z. *International financial crises and flexible exchange rates.* Ottawa: Bank of Canada; 2000 Apr. Technical Report No. 88.

Personal communication

These should be cited in parentheses in the body of the text. The author should obtain permission from the source to cite the communication.

Other publications

Newspaper article

Rensberger B, Specter B. CFCs may be destroyed by natural process. *Globe and Mail.* 1989 Aug 7;Sect. B:24.

Audiovisual

Wood RM, editor. *New horizons in esthetic dentistry* (videocassette). Chicago: Chicago Dental Society; 1989.

Unpublished material

Smith A, Jones B. The whitening phenomenon. *J Nat Dent.* (Forthcoming 2004)

Electronic material

Monograph on Internet

National Library of Canada. *Canadiana quick reference* [monograph on the Internet]. Ottawa: The Library; 2000 [cited 2003 Nov 30]. Available from: <http://www.nlc-bnc.ca/8/11/index-e.html>

Journal on Internet

Walsh MM. Improving health and saving lives. *Dimensions Dent Hyg* [serial on Internet] 2003 Nov/Dec [cited 2004 Jan 12] Available from: http://www.dimensionsof.dentalhygiene.com/nov_dec/saving_lives.htm

Homepage/web site

Canadian Dental Hygienists Association [homepage on the Internet]. Ottawa: CDHA; c1995 – [cited 2003 Nov 20]. Available from: <http://www.cdha.ca/>

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CDHA Community Calendar

Plan ahead. Participate in the events posted on this page. Or mark your calendar.



UPCOMING EVENTS/ÉVÉNEMENTS À VENIR Programs may be subject to change.

	Online event	1 December 2010 8–9 p.m. ET	Webinar	<i>The Path to Private Practice</i>	
	Online event	19 January 2011 8–9 p.m. ET	Webinar	<i>The Changing Face of Oral Cancer</i>	
	Online event	le 23 février 2011 18 h 00–19 h 00 HNE	Webinar	<i>Les dentifrices: traitement efficace contre l'hypersensibilité</i>	
	Online event	23 February 2011 8–9 p.m. ET	Webinar	<i>Dentifrices: Effective treatment of dentinal hypersensitivity</i>	
	Onsite event	10–11 June 2011	Halifax, NS	<i>Advancing Dental Hygiene Practice—CDHA national conference</i>	



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An annual event dedicated to heightened awareness about preventative oral healthcare, and to help Canadians understand the role and importance of the dental hygiene profession.

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The outer front covers in the six issues of Volume 44 in 2010 feature **dental hygiene educators in Canada**, honouring their service to the dental hygiene profession. This picture was one among the entries selected for the front cover competition first advertised mid-November 2009 in the journal. ©CDHA. Printed with permission.



The dental hygiene clinical program at George Brown College emphasizes a collaborative approach to student centred learning and interprofessional practice. In this picture, the clinical faculty calibrate with each other and students on the client case. Students engage with one another and may be involved in a fellow student's clinical session in the context of peer mentoring to discuss client cases with faculty in a neutral and equitable learning environment. Pictured in the background are Xiang Ren, Susan Rudin, Soo-Lyun An, and Catherine Ranson. In the foreground are Deborah Humphrey, and Iris Shrambam. ©CDHA. Printed with permission.

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