Practicum experience to socialize dental hygiene students in LTC settings

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DH and its evolving professional identity

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On professionalism and self identity

Katherine Zmetana, DipDH, DipDT, EdD

Professional identity captures the essence and value of who we are and what we do; at the same time it embodies and promotes professionalism. But do we all have a common ground of understanding about what professional identity is? Professionalism is one of those concepts that mean different things to different people, and quite possibly something different to the general public than to the professionals involved. Part of the quandary is that the definition has evolved over the years and is currently in a state of fluidity. So just what is meant by professionalism? There exist not only official definitions, but also connotations that people hold.

The Dental Hygiene Entry-to-practice Competencies (2010) provides a definition of professionalism as applied to dental hygiene: Professionalism “reflects standards related to responsibility, accountability, knowledge application, continuing competence and relationships that define the practice and profession of dental hygiene” and it goes further to detail characteristics of each of those components.1 From another perspective, the Dental Hygiene Code of Ethics, revised in June 2012, integrates professionalism as an essential component of ethical practice through the delineation of principles and responsibilities.2 These publications provide a valuable reference. Nevertheless, professionalism has been very much a topic of discussion over recent years, not only in dental hygiene but in virtually all health care professions as well as in vocational fields because more and more occupations are adopting professional standards to their practice. This move has been influenced by government demands for the adoption of evidence based decision making and policy development. Professionalism has been discussed, studied and promoted, and it has been defined to the point of government regulation in several countries.3

Historically, the term “professional” was much more strictly defined. In the late 19th century, the “professions” were limited to divinity, law, and medicine.4 Society recognized that these persons “professed knowledge of some areas of science and used that knowledge in the service of others”.5 [Associations were formed] “to control the behaviour of the members and to adopt high standards of performance”,6 with restricted entry to those who had undergone the advanced professional training. In return, “the community gave these associations the right of self-regulation and licensing.”6

At its roots, professionalism comes from “professor”, one who professes. More specifically, the professor was the keeper of knowledge, the expert who knew and passed on the knowledge. You could be a professional only if you had apprenticed with a professor.7 Hence, trades such as plumbing and carpentry would not qualify for such an esteemed title because they lacked this intellectual formation. Professionals formed a strong elite.

According to tradition then, the professional was the one who had the answers and was capable of making important decisions due to his unquestioned abilities to make good judgment. In return, the professional enjoyed a heightened status in society. This form of professionalism was paternalistic; at root was the understanding that “father” knew best. But times have changed with the proliferation of shared research through professional journals, increased literacy and the advancements of technology. Clients are much more involved in taking charge of their own health. The paternalistic model of professionalism is undeniably outdated. Access to advanced learning and knowledge is no longer limited to men or to certain classes of society; Internet access is widespread. Thus the professional is no longer the keeper of information and knowledge; most people would rather not be held hostage in their personal care to a single practitioner. The professional enjoys a heightened status in society. This form of professionalism is undeniably outdated. Access to advanced learning and knowledge is no longer limited

There seems to be a current trend in the UK, and now North America, of promoting a “new professionalism”8 which also includes such diverse professions as social workers, teachers and police. This call for a new definition and set of standards of professionalism has come about largely through societal demands for accountability. A better informed public demands a greater accountability9 particularly when public spending is involved. Cynically, Masella states, “Unfortunately, American society, including higher education, glorifies a market mentality centered on expansion and profit.”10 Since Canadian society often reflects American mentality, our public may also be suspicious of that attitude and underlying motives among professionals.

A professional has undergone rigorous education and possesses skills that others do not. A professional also accepts responsibilities and duties not expected of members of society in general, such as confidentiality, compassion, integrity, interprofessional respect and collegiality, public service and self-policing, and a commitment to progress.4

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ScientificEditor@cdha.ca
Christmas and Millward in *New Medical Professionalism* state, “Typically, [professionalism] is seen as a combination of values, knowledge and skill; integrity; and good judgement in an individual. The growth of evidence-based medicine, and the growing accessibility of that evidence, have both had profound effects on medical professionalism. To the extent that evidence determines the right thing to do, it erodes the scope for individual judgement.”

Nevertheless, professional judgement is still at the core of professionalism. The person making the decision has not only the education, experience, and possession of skills, but also the self awareness of personal strengths and abilities to determine a rational, well thought out plan of action where health and even life are concerned.

Ethics is integral to professionalism. Ethics is not simply the study of what is right and what is wrong without discernment; it is also the function of taking appropriate action within context. What is right for one person may not be for another. “Professionalism is more than knowing right from wrong. It is having the courage and conviction to make the right choices and do the right thing.”

We also live in an era of interprofessionalism—health professionals must often collaborate in the care of clients, to take the whole person into consideration and to reflect on the best interests of the client. But the client must be involved as well. The relationship between health professionals and clients can be summarized as “No decision about me without me.” Interprofessionalism includes the client.

Altruism, integrity, caring, community focus, and commitment to excellence are attributes of professionalism. “Its backbone is the obligation of service to people before service to self—a social contract. Moral principles are inherent in professional development and the professional way of life.” Professionalism is about “letting go of selfish, short-sighted rewards and promoting the long-term common good.”

Being a professional extends to all aspects of life. Why should we be ethical and professional? Because it doesn’t just help the client but ultimately helps us: “doing well by doing good.”

The most important feature of all is that as dental hygiene professionals we represent dental hygiene to others—to our clients, our colleagues at work, the health care industry and the community at large. Our comportment day to day, our attitude towards others, and our integrity and self awareness are a reflection of dental hygienists everywhere. Role models are a strong influencing factor of professional values, attitudes and behaviours; professionalism includes being a role model. Dental hygienists are professionals, not so much because we “do” dental hygiene, but because we “are” dental hygienists.

In this month’s issue, Dr. Sharon Compton *et al.*, p. 61, describe dental hygiene students’ experience in professionalism during a practicum in long term care facility and provide recommendations for increasing the effectiveness of oral hygiene care in a long term care facility that includes interprofessionalism. The contribution by Dr. Leandro Chambrone *et al.*, p. 78, on traumatic gingival recession involves research with colleagues and students. Finally, Sandy Lawlor, p. 55, addresses the issue of professional identity in dental hygiene. For follow up and further research on recent publications on ethics and professionalism in health care, you may wish to consult the Research Corner, p. 91.

**REFERENCES**

Dental Hygiene and its evolving professional identity

Sandy Lawlor, RDH, BA(Psych.), BSW

2013 is a memorable year for the dental hygiene profession as it celebrates one hundred years since Dr. A.C. Fones started the first dental hygiene school in North America.1,2 In Canada, the year also marks the fiftieth anniversary of the establishment of the Canadian Dental Hygienists Association (CDHA).3 Both these events are remarkable because the former has a historical role in creating the awareness of professional identity while the latter has supported the evolution of that identity.

Traditionally over the last two centuries, professional identity had two main attributes.4 The first was to ensure objectivity in one’s work by utilizing education and the review of colleagues as guidelines to practice. The second characteristic was to meet each client’s needs.4

This approach seemed to provide a simplistic definition of professional identity that was seen as being too constricting and narrow.

An expanded approach focussed on factors that typically defined a profession. These included developing a comprehensive education program, establishing both local and national associations, requiring licensure or self-regulation, and creating a code of ethics.5

Current trends have encouraged professional identity to be expanded yet again. This approach encompasses the beliefs, characteristics, experiences, motivations, and the values that outline one’s professional life.6 Further, this definition recognizes that we are basically social beings and that it is our participation in human interactions which not only shape the people we become but also place us in communities different from our family units and into wider and broader contexts.7

Shaping professional identity has come to include “communities of practice”—groups brought together to share experiences so that people understand collectively what has been learned. Such community interaction then provides an opportunity to utilize the exchange of that knowledge to refine the old and incorporate new strategies contributing to practice success.7

Several models outline stages of achieving a professional identity, and many have a tendency to include a component that leads to comparing themselves with others while adhering to true core values and strategies.5,6 As a result, an individual’s story forms the narrative that becomes part of one’s professional identity. It is when the personal narrative combines with the narratives of communities of practice that the true development of a professional identity emerges.

L’hygiène dentaire et l’évolution de son identité professionnelle

Sandy Lawlor, RDG, BA(Psycho.), BSW

2013 est une année mémorable pour la profession d’hygiène dentaire qui célèbre son centenaire après le lancement par le Dr A.C. Fones de la première école d’hygiène dentaire en Amérique du Nord.1,2 Au Canada, l’année marque aussi le cinquantième anniversaire de la création de l’Association canadienne des hygiénistes dentaires (ACHD).3 Ces deux événements sont remarquables parce que le premier a créé une sensibilisation à l’identité professionnelle alors que la seconde a soutenu l’évolution de cette identité.

Traditionnellement, depuis les deux derniers siècles, l’identité professionnelle avait deux caractéristiques principales.4 La première était d’assurer l’objectivité du travail personnel en utilisant la formation et l’examen des collègues comme lignes directrices de pratique. La seconde caractéristique exprimait la satisfaction des besoins personnels de la clientèle.4 Cette approche semblait donner à l’identité professionnelle une définition simple qui semblait restrictive et trop étroite.

Une approche élargie a été axée sur les facteurs qui définissaient typiquement une profession, notamment : l’élaboration d’un programme complet de formation, la création d’associations locales et nationale, l’exigence d’un brevet ou d’une autoréglementation et la création d’un code d’éthique.4

Les tendances courantes ont incité à étendre davantage notre identité professionnelle. Cette approche comprend les croyances, caractéristiques, expériences, motivations et valeurs qui marquent le profil d’une vie professionnelle.4 Et davantage, cette définition reconnaît que nous sommes fondamentalement des êtres sociaux et que notre participation aux interactions humaines non seulement modifient la nature des personnes que nous devenons mais aussi nous situent dans des collectivités différentes de nos unités familiales et dans des contextes plus grands et plus étendus.7

Le moment est venu d’inclure les « communautés de pratique » dans le développement de notre identité professionnelle — soit...
Dr. Fones could not have had the foresight of the impact his dental hygiene school would have in marking a path for the creation of a professional identity that highlights health promotion and disease prevention through therapeutic care. Over time, dental hygienists, individually and collectively, have come to embrace their role as primary healthcare practitioners.

The CDHA “end” or goal based on professional identity states, “Members have a shared understanding of the purpose and value of Registered Dental Hygienists as an integral part of the health care team.” To meet this end, evidence based documents and position papers are developed and published that contribute to professional identity. For instance, published documents such as Pathways to support the oral health of Canadians: The CDHA Dental Hygiene Agenda and Entry-To-Practice Competencies and Standards for Canadian Dental Hygienists keep the profession in the political and public eye. This ensures dental hygienists are recognized as primary health professionals who participate in interprofessional practice. It also reinforces that professional identity adapts to the current environment.

CDHA strives to engage its members through opportunities for feedback and direction. Sometimes this is done through surveys where members share their personal narratives and concerns. CDHA also has created communities of practice through committees such as the Education Advisory Committee and Research Advisory Committee. Another example is the Educators’ Listserve where new information is shared, and often lively debate and discussion ensue.

Another challenge members are encouraged to embrace is professional identity through seizing opportunities to engage and share ideas. This can be done by volunteering to sit on a committee or task force, advocating to elected officials both nationally and provincially, and engaging in dialogue with CDHA’s board of directors. It is through these interactions that both the organization and the profession grow stronger, and can explore innovative ways to allow professional identity to evolve.

Dental hygienists were once referred to as “teeth cleaners”. Hard work, advocacy and educating other health professionals, politicians and the public have given dental hygienists the respect that comes with being primary health professionals who practise interprofessionally.

Our professional identity has grown since Dr. A.C. Fones opened that first dental hygiene school, and dental hygienists continue to build on that identity—national competencies for entry to practice, self regulation for more than ninety per cent of Canadian dental hygienists and the ability to practise independently. The professional identity of dental hygiene is and should always be an evolutionary process.

**RESOURCES**


11. Woodall I. Dental hygiene more than just cleaning teeth. RDH. 1989;8(7).


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* With twice-daily brushing.

When good things go around

First, congratulations to Canadian Journal of Dental Hygiene on the astute decision to go open access. I particularly appreciated Dr. Katherine Zmetana’s editorial in the February issue, *Open access is a good thing*, which provided a well informed overview of the advantages to open access publication especially as future educational trends point toward accommodating lifelong learning to anyone without restrictions.

Second, the editorial provided a great summary of the difference between “open access” and “open content” as well as a reminder of proper copyright etiquette especially since recent new copyright laws through Bill C-11 have now been formally ratified. Under the new copyright law, the scope of fair dealing has been expanded to allow access to research articles for personal study and further research without payment or the need for permission, and we gratefully acknowledge the time, energy and effort that go into these works. Continued publication of research needs to be promoted and encouraged, therefore despite open access, it is important to be hyper vigilant in crediting authors and sources of information.

As an advocate for open education to create learning communities where there are no barriers to learning, I am excited and encouraged to read that our national dental hygiene journal has adopted this direction. *Way to go ...!*  

Loni Spletzer, RDH  
Prince George, BC

Radiograph

I’m writing to express my concern regarding the image used in the *CJDH* advertisement on page 38 of the February 2013 issue, volume 47.1. While I understand this is a stock image, there are some glaring errors in the image which I feel reflect poorly on the profession, particularly since this is an advertisement representing our professional organization. The most prominent error is that the woman in the image is holding the radiograph *upside down.*

Additionally, we can assume she had some difficulties with processing the image as there are brown marks on the image. Also, she is holding the image up to an overhead light to “read” it. Radiographic evaluation and interpretation requires a good light source such as a light box; holding the radiograph up to the light is an unacceptable shortcut. It is unclear why she is wearing a mask and safety glasses to view the radiograph and it is a minor issue, but she should be wearing them properly. Instead the inferior border of her mask has not been pulled back under her chin. While some of these issues may appear trivial, is this how we want to present ourselves as professionals? At a time when we are trying to increase awareness of our profession and scope of practice to the public and other health professionals, we should also be advancing this cause within the profession. I have shared these concerns in hope that going forward, that images used by CHDA and others within our profession will be vetted more thoroughly prior to publication to more adequately reflect the professionalism and skills we expect from ourselves.

Denise M. Laronde, PhD, RDH  
Assistant Professor  
Department of Oral Biological and Medical Sciences  
University of British Columbia

Letters to the editor

We encourage our readers to submit letters on articles and other content published in recent issues of *CJDH*. Letters should not exceed 500 words. No illustrations, please.

The editor reserves the right to edit for purposes of clarity or conciseness. The views of the letter writer are not necessarily an endorsement of the CDHA or the journal’s policies.

Send us your letters:
- [ScientificEditor@cdha.ca](mailto:ScientificEditor@cdha.ca)
- [Journal@cdha.ca](mailto:Journal@cdha.ca)
Letters to the editor

Chuckle for the day

Just wanted to drop you a line, and to thank you for the chuckle of my day.

I was looking through my Feb issue of CJDH. I came to page 38, and to the ad which offers us the opportunity to send in a letter to the editor. Ideally, we should elevate or add to the level of scientific discussion in a previously published article.

My contribution for consideration is this: the “hygienist” in the photo is intently scrutinizing a panoramic radiograph. I have two recommendations for her: she should use a light box, and she should turn the radiograph right side up.

Linda Mantei, RDH

EDITOR’S NOTE

Image issue

We thank those of you who took the time to notify us of your views regarding the CJDH Call for Letters to the editor ad that we published in our February 2013 issue of CJDH, volume 47(1):38. The oral health professional in the ad was holding the radiograph upside down. We replied individually to each reader who contacted us, and have selected two representative letters for publication. We purchased that image from an image bank library, and we do not intend to reproduce the image again. We agree that the picture depicts an incorrect representation.

We are using the responses to discrepancies in this advertised image as an opportunity for progressive reflection and action. We encourage you to submit your own pictures of dental hygienists in clinical settings, at work, at study, in a research facility, at conferences ... That way we can feature real professionals practising in real ways. We could use your submitted picture in any of CDHA’s publications or website, or other CDHA promotional vehicles and events. Please email your picture(s) to marketing@cdha.ca, noting the following requirements:

1. Picture(s) in any of these file formats: .jpg, .jpeg, .tiff, .png, .pdf, or .ai, .eps
2. Picture(s) in high resolution with pixel strength of 300 dpi
3. Your coordinates — email, phone and mailing address

We encourage you to participate constructively through our forum, “Letters to the editor”, on published articles in the Canadian Journal of Dental Hygiene. Critiques and negative comments on content should be written in a thoughtful and analytical manner to provoke further insight and discussion, rather than to judge or discredit any person or organization. We support and encourage negative comments that are expressed with sensitivity and rationale, a crucial quality in correspondence that also represents an image perception of the profession we’d like to portray in this forum. The two letters we published above are excellent examples which serve this point.

We value our readers’ responses and contributions. Thank you for defending and upholding our standards of quality.

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Continued on page 75
Practicum experience to socialize dental hygiene students into long term care settings

Sharon M. Compton*, DipDH, BSc (MA Ed), PhD; Sandra J. Cobban†, DipDH, MDE, PhD; Lisa A. Kline*, PhD

ABSTRACT

Introduction: As the population ages, educational health care programs must increase efforts to provide geriatric health knowledge to students and to socialize them into settings such as long term care (LTC). Methods: A new practicum was developed in which dental hygiene (DH) students were scheduled onsite in LTC facilities. A guiding objective for the practicum was to socialize students into this environment by providing them with practical knowledge and experience that could give them the confidence, attitudes, and desire to work with this population upon graduation. This study provides a qualitative analysis of data acquired from focus groups with the students and from individual interviews with the registered dental hygienist (RDH) instructors who guided them. Results: Six main themes were identified from the student focus group data: 1) communication challenges between students and LTC staff; 2) communication challenges between students and LTC residents; 3) uncertainty about follow up for oral health recommendations; 4) barriers to provision of daily mouthcare; 5) uneasiness of students in LTC environment; and 6) appreciation for the practicum experience. Transcripts from the RDH interviews revealed two themes: 1) challenges in the facility context; and 2) challenges and enhancements for student learning. Discussion: From these results, we determined that changes need to be made to the practicum, including: providing more classroom preparation before the practicum; beginning the practicum earlier in the year to provide students with more experience; arranging onsite visits to correspond to the schedules of the residents and staff; improving and increasing interactions between students and LTC staff; and developing and establishing clear protocols for what students should do under specific conditions, and how their recommendations for residents can be implemented. Conclusion: We believe that the practicum successfully contributed to the socialization of DH students into the LTC environment by building their awareness of the complexities of working in this context with this population.

Key words: older adults, older seniors, geriatrics, dental hygiene student practicum, long term care, socialization

BACKGROUND

Developed countries worldwide have steadily increasing numbers of older persons as the population ages: in 2000, 20 per cent of the population in these regions was aged 60 and older, and this is expected to increase to 33.3 per cent by 2050.1 In Canada, individuals aged 65 and older currently comprise 14.4 per cent of the total population, and it is estimated that these numbers will increase to 24.5 per cent by 2036.2,3 There is some question as to whether the inevitably increasing need for health care in the growing older adult population can be met or if the health professions are severely underprepared in training and attitude.4 Oral health care, in particular, is an area of great concern, particularly for older adults living in long

EVIDENCE FOR PRACTICE
term care (LTC): a review of the literature reveals that the current provision of oral care in LTC facilities worldwide is inadequate, with frail dependent elderly people often receiving little or no oral care.1–23

One of the steps that can be taken to address the growing numbers of older adults and the care they will require is to focus on the education of future health professionals. There are two key areas of focus for this educational initiative: curricula must ensure that students from all health disciplines learn how to maintain and improve oral health, and that students be socialized into working with older adults, particularly in the long term care environment.

The reason all health professions must be involved in oral health maintenance and promotion is because poor oral health, a potentially serious condition in itself, is also linked to or associated with other health complications to which older persons, such as the frail elderly in LTC or assisted living, are particularly susceptible.24 For example, evidence indicates that poor oral health may lead to an increased risk of developing or worsening illnesses or conditions, including pneumonia,25–32 influenza,33–35 heart disease,36–38 stroke,39,40 diabetes,41 and malnutrition.42,43 Poor oral health may also affect one's quality of life by impacting chewing, eating, swallowing, and speaking, as well as poor facial aesthetics—such as decayed teeth, breath malodour—all or many of which may result in self consciousness and isolation due to reduced inclination to interact socially with others.44–56

While many studies have provided considerable evidence of oral–systemic relationships, health curricula may not be adequately addressing this issue. For instance, a comprehensive study was conducted to explore the amount of information related to oral–systemic science currently being taught in the predoctoral or undergraduate professional curricula of nursing, medical, and pharmacy schools in universities across Canada, the United States, Europe, Asia, Australia, and New Zealand.57 This study, which involved circulating an online survey to associate or academic deans at these schools, found substantial deficiencies in the provision of oral health education and oral–systemic health education to their students.55 In a different survey of baccalaureate nursing students, it was revealed that, although students believed that oral health is important to nursing practice and knew that there was an association between oral health and other health issues, most of them lacked sufficient knowledge and understanding of the components of an oral health examination to be able to conduct a proper oral health screening.58 Researchers concluded that the oral health content of nursing courses was inadequate, and that improvements would have to be made so that students’ awareness of the importance of oral health to overall health can be translated to practice in a way that will benefit the health outcomes of patients.58

One way to improve the oral health knowledge and practice of nursing students can be found in an interprofessional educational initiative at George Brown College in Ontario, Canada.59 Recognizing the association between oral health and overall health, this program initiative combines students from the Bachelor of Science in Nursing program with students from DH.59 This program enables the students to learn from one another and to develop an understanding of how they can combine their skills and knowledge and thus work collaboratively to provide better oral care as well as better overall health care.59 However, there is a lack of information concerning oral health education in the non dental health sciences, which may reflect the fact that much progress has yet to be made.

Improving the quality and quantity of oral health education, while extremely important and in need of growth, is in itself insufficient to ensure that there will be a health care workforce prepared to manage the increasing number of older adults. It is also essential to focus on the socialization of students in the area of geriatric health care, and there have been many calls to improve geriatric education in the health professions.60–68 Some of the obstacles that must be overcome concern the attitudes and perceptions of health care students towards working with the older adult population. In three different studies of medical,69 dental,70 and nursing71 students, it was revealed that many students, prior to any experience working with this population, exhibited negative attitudes and perceptions towards working with older persons and had minimal or no inclination to want to work with them. However, it was also found that, after having some experience working with this population, the same students developed more positive attitudes and perceptions. Researchers concluded that it is essential for there to be increased practicums in which students can interact with older adults, and that the positive attitudes and perceptions that arise from these experiences must be fostered and supported during their education, which may result in a desire to work with older adults upon graduation.69–71

There have been reports of positive developments in which some educational health care programs offer training and practicums in LTC so that students can acquire first hand experience working with this complex population. The aforementioned educational initiative with the collaboration between nursing and DH takes place in the LTC environment.59 One nursing school has developed a program of academic and service partnerships in which faculty and students conduct clinical practice in four LTC homes—two large urban residences and two small rural residences.58 The objectives of this program are to increase communication, share resources, allow interactive learning, and use nursing expertise to develop the competence of nursing students, resulting in new nursing graduates considering a career in LTC.67 Although it is too early to determine if the student objectives have been met, the preliminary report on this program revealed positive outcomes for the other objectives.48 Other educational programs are targeted directly for students by providing them with LTC experience so they can learn to apply their knowledge in a practical setting as well as acquire a better understanding of the challenges and rewards of working with the frail older adult population. For example, there have been reports from nursing,72,73 medicine,74,75 and
speech-language pathology\textsuperscript{72,76} programs in the USA, from nursing schools in New Zealand\textsuperscript{77} and Australia,\textsuperscript{78} and from dentistry schools in Canada,\textsuperscript{79,80} all demonstrating that educational curricula are beginning to address the need to prepare future health professionals for the growing older adult population, particularly in LTC. In addition to providing students with practical knowledge of geriatric health care, these programs also aim to socialize students into geriatric health care environments so that they may seriously consider choosing to work with that population when they graduate.

The success of these programs with regards to student socialization has been mixed. In one study, undergraduate nursing students and graduate speech-language pathology students participated in a service learning project with residents with dementia at an LTC facility.\textsuperscript{72} Aims of this program included encouraging students to:

1. Acknowledge that the person, rather than the disorder, comes first.
2. Consider the impact of the relationship between a person and other people in the person's life, such as family, caregivers, and community members.
3. Become well rounded professionals with experience and insight beyond their fields.
4. Participate in qualitative analysis of their own learning processes through journalling.

Students were prepared for the project by classroom instruction and self study assignments. The speech-language pathology students, or the "experimental group", received more instruction about dementia and communicating with individuals with the condition than the nursing students, or the "control group"; the experimental group also had to create a "personalized connection kit" for each resident, whereas the nursing students did not.\textsuperscript{72} Results of this project, based on questionnaires, indicated that students from both groups obtained benefit in terms of taking more responsibility for their own learning, enhancing their personal growth, and gaining a broader understanding of community needs and service; therefore, in these respects, the project was deemed successful.\textsuperscript{72} Speech-language pathology students found the experience, regarding the socialization aspects of the project, to be very beneficial to their professional development and said that they were inclined to continue to volunteer or work or do both in the LTC community.\textsuperscript{72} Nursing students, however, felt more classroom time spent covering dementia would have been more beneficial to their professional development than community time, and they said they were unlikely to want to continue to volunteer or work in the LTC community after the completion of the course.\textsuperscript{72} The speech-language pathology students had more extensive training and knowledge to prepare them to work with the LTC population and dementia patients in particular, which contributed to their more positive attitudes.\textsuperscript{72}

In another study of baccalaureate nursing students, senior students spent four days of their clinical rotation in an LTC setting where they completed basic assessments of residents using the MDS (minimum data set), and participated with the care planning team at the LTC facility to learn how the MDS contributes to care planning.\textsuperscript{73} The main goal of the practicum was to improve students' attitudes about older adults and to create increased interest in geriatric nursing. While attitudes may have improved, based on focus group results a week afterwards in which most students rated their experience positively, none of the students said that they planned to work in LTC immediately after graduation, prompting researchers to suggest that their program is not as effective as it could be.\textsuperscript{73}

A common theme that emerges in most of the studies on student experiences in LTC concerns the emotional impact upon the students. In two different studies, one with medical students\textsuperscript{75} and the other with nursing students,\textsuperscript{79} it was revealed that many students were somewhat overwhelmed by the range and intensity of emotions they experienced while working with the LTC residents. In both reports, it was concluded that greater support must be provided to help students not only prepare for the emotions they will feel, but to teach them how to deal with those emotions in a way that will be beneficial. However, other studies of student experiences in LTC demonstrate more positive results arising from students' emotional experiences. For example, in various studies with dental students,\textsuperscript{79,80} medical students,\textsuperscript{75} and speech-language pathology students,\textsuperscript{76} many students expressed that the emotional learning they experienced helped them grow as professionals and as individuals, increasing their understanding and appreciation for the lives and situations of the older adults in their care. The many positive experiences revealed in these various studies may encourage students, upon graduation, to work with older adults and in the LTC environment.

If the health professions are going to be adequately prepared to manage the increasing numbers of older adults, it is important to increase and improve efforts to provide oral health and general geriatric health knowledge to health care students. Perhaps most importantly, however, would be to socialize them into the LTC environment, so they will have the knowledge, experience, confidence, attitude, and desire to return upon graduation or later in their careers.

**ElderSMILES: A dental hygiene program practicum**

ElderSMILES (Strengthening Mouthcare In Long-term ElderCare Settings) is a practicum that was initiated in the dental hygiene program at the University of Alberta in January 2011. The primary objectives for the practicum were to socialize DH students to the long term care environment, to assess resident's oral health and to provide daily mouthcare for residents. The purpose of this paper is to report the qualitative data based on the first objective which was the socialization of DH students to the long term care setting.

Two long term care facilities were chosen and were located within reasonable proximity to the university which facilitated student access to each facility. The two facilities differed in their structural organization and in some services offered, so each had the potential of providing a range of experiences for the students.
**Focus group questions**

- From your practicum in LTC, describe the learning experience that stands out most for you. *(Note to facilitator – try to have each student respond to this question.)*
- Describe any challenges you experienced.
- Describe how communication and directions transpired from the time you entered the facility to completion of the day’s experience. For example, were you met upon arrival and directed to your area as planned?
- Describe any challenges you had with performing the oral assessments.
- Describe any challenges you had with mouthcare instruction with residents.
- Describe any challenges you had with mouthcare instruction with HCAs? Others? *(If others, who were they? RNs? Other caregiver?)*
- How do you feel you were able to communicate with residents? HCAs? Others? *(If others, who were they?)*
- Did you feel part of an interdisciplinary team? If so, how? If not, why not? *(Provide an example.)*
- How would you describe the receptiveness of the facility staff to the ElderSMILES program, and having dental hygiene students on site?
- Please share any suggestions for the future of this practicum.

**Interview questions**

- Overall, what stood out for you when you reflect on the practicum experience?
- Describe any overall challenges you experienced.
- Describe how communication and directions transpired from the time you entered the facility to completion of the day’s experience. For example, were you met upon arrival and directed to your area as planned?
- How were residents identified for you and the students to see each week?
- Describe any challenges you or students had with performing the oral assessments.
- Describe any challenges you or students had with mouthcare instruction with residents.
- Describe any challenges you or students had with mouthcare instruction with HCAs? Others? *(If others, who were they? RNs? Other caregiver?)*
- How do you feel you or students were able to communicate with residents? HCAs? Others? *(If others, who were they?)*
- Did you feel part of an interdisciplinary team? If so, how? If not, why not? *(Provide an example.)*
- How would you describe the receptiveness of the facility staff to the ElderSMILES program, and having dental hygiene students on site?
- Please comment on how the assessment tools worked for you and the students? Easy to follow? Difficult to follow? Suggestions?
- Please share any suggestions for the future of this practicum.

Senior level DH diploma students were at each site one day per week over a 13-week period. A registered dental hygienist (RDH) who was also a clinical instructor in the DH program guided the students at each site. Students worked in pairs to complete an intra oral assessment for residents using a modified Oral Health Assessment Tool (OHAT) and, when appropriate, provided daily mouthcare and oral hygiene instructions to the resident. The chosen modification of the OHAT was selected because the Edmonton Zone of Alberta Health Services modified the OHAT developed by Chalmers and subsequently, has recommended incorporating it into the resident’s assessment for long term care facilities. Students also assessed and recorded the amount of plaque and hard debris on the teeth using a disposable dental mouth mirror and a visual inspection. When possible, students also provided demonstrations for health care aides on how to effectively complete daily mouthcare for a resident.

There were 48 participating DH students, all of whom were in the final year of a 3-year diploma program. None of the students had any prior experience with long term care (LTC) facilities other than a few students with personal experience with family members. Each student was scheduled for the ElderSMILES practicum for two days and a few students were scheduled for three days. Prior to the start of the practicum, students and the RDH clinical instructors attended a workshop that included a presentation from one of the facilities and a detailed orientation to the processes to be followed during the LTC practicum experience. Students and the registered dental hygienist (RDH) clinical instructors were provided with a resource manual.

Onsite at each facility, the RDH instructor would begin each day with a briefing session and, after seeing each resident, the group would debrief and determine next steps. Oral assessment details and recommendations were recorded in the resident’s care plan and when possible, discussed with the registered nurse who develops and monitors the resident’s care plan.

**METHODS**

Following the 13-week period, two focus groups were conducted with DH students. Each focus group included three students who had volunteered to participate. Focus groups were chosen for gathering data from the students because this research method provides the opportunity to capture interaction with the group that can better reflect the collectivity of student experiences in the practicum. Focus groups also allow for the expansion of ideas by stimulating the thinking of the individuals as they reflect on and respond to what other members of the group say, providing potentially rich and detailed perspectives from participants. In addition, individual interviews were conducted with the two RDH instructors. The questions for both focus groups and individual interviews were developed by the authors, and approval for the evaluation of the practicum was granted by the Health Research Ethics Board at the University of Alberta as well as the Covenant Health Research Centre. Focus group and interview questions are outlined in Table 1.
The focus groups with students were conducted by the second author, who was not involved in the onsite practicum experience. She was assisted by a master’s level graduate student who was not involved in the practicum but is a registered dental hygienist. The assistant recorded notes. The interviews with the RDH clinical instructors were conducted by the first author. Both the focus groups and the interviews were audio taped and transcribed verbatim. The full transcriptions were first reviewed by the second author who read each transcript and identified thematic categorization. The first author reviewed them independently and the two authors later met to compare themes. Any discrepancies that occurred in the categorization of data into a particular theme were discussed by the authors until consensus was reached.

RESULTS
Qualitative analysis of the transcripts revealed six main themes from the focus groups conducted with the students:

1. Communication challenges between students and LTC staff
2. Communication challenges between students and LTC residents
3. Uncertainty about follow up for oral health recommendations
4. Barriers to provision of daily mouthcare
5. Uneasiness of students in LTC environment
6. Appreciation for the practicum experience

1. Communication challenges between students and LTC staff

The predominant concern was that the health care aides (HCAs) were not present when the student was visiting the resident in LTC. This made it impossible for the student to demonstrate or to explain the importance of proper mouthcare to the HCAs, which was to have been part of the practicum experience. If the HCAs had been present, students believed that it would have improved their ability to work with the residents. Students also found that the HCAs were so busy with their many duties that it was not feasible to interact with them: “We could not really communicate with them, just due to time factor.” Students also experienced communication challenges with the RNs: “You kind of feel uncomfortable because you feel the nurses are kind of saying, ‘What are you doing here? You are wasting our time’.”

2. Communication challenges between students and LTC residents

Communication challenges between the students and the residents were due to many factors, including residents not knowing or understanding what the student was doing, students’ minimal understanding of the residents’ cognitive and physical capacities, and the physical challenges of working with frail seniors. “Some residents were great. Others, not so much.” Learning how to approach the residents in their rooms was a new and challenging experience for the students. In one student experience, she noted, “She [the resident] thought we were there to do something to her and she didn’t know us and she seemed afraid and that’s why she was defensive. I guess what I am trying to say is if you can find a way to communicate with them, they may be willing to cooperate but if they do not understand what we are there for, they are not going to be receptive.” Obtaining a meaningful level of rapport with residents in order to perform oral assessments and to provide some daily mouthcare for the residents in their rooms was challenging, but students appreciated the complexity of the rapport building process after their interactions with residents.

3. Uncertainty about follow up for oral health recommendations

Students expressed uncertainty and frustration about follow ups to their recommendations for oral care for residents: “I feel after we leave, what happens next? All the referrals we recorded… does that ever get looked at by anybody?” Students had the impression that what they were doing would not have any lasting impact: “It almost seemed defeating. You know, you are writing these notes down and you know that no one is going to see that. That’s what I felt.” It seemed to most of the students that, as soon as they were gone, mouthcare would again be minimally performed and their recommendations for oral care would be ignored.

4. Barriers to provision of daily mouthcare

Some of the barriers to provision of daily mouthcare that were encountered by the students included residents not being in their rooms when the students arrived: “[We had problems] fitting into their busy schedules. They [residents] were not where they were supposed to be or they had something else planned.” They also faced uncooperative residents who created physical challenges for the students, by making it difficult to perform mouthcare: “Basically, it took four people to brush her [the resident’s] teeth and it was 20 minutes to get the whole mouth done.” Other physical challenges included the fact that many residents are in wheelchairs, which made it difficult for the students: “You’re bending down, it is dark in their room and the flashlight is bothering them. And I had one lady who would keep pushing herself in the wheelchair, moving around a lot.” Many students suggested that some of the greatest barriers to provision of daily mouthcare were due to the situations and inherent limitations at the LTC facilities. The fact that students were unable to interact with the HCAs during the practicum led to the comment: “I think the biggest challenge was the people that actually would not have any lasting impact: “It almost seemed defeating. You know, you are writing these notes down and you know that no one is going to see that. That’s what I felt.” It seemed to most of the students that, as soon as they were gone, mouthcare would again be minimally performed and their recommendations for oral care would be ignored.

5. Uneasiness of students in LTC environment

Students experienced considerable emotional challenges working in the LTC environment. Many of them had never had experiences with older adults and had never been to a long term care facility: “Some people [students]; including me, the initial reaction was a little overwhelming just because it is the first time we are dealing with this population. Like, I love old people but being in the facility where they are sick, they are in a wheelchair and slouched down… it was just
overwhelming. So sad. And I was initially like, ‘oh my gosh! I don’t know how to deal with this.’” Many students expressed that they felt overwhelmed and did not know how to adequately deal with the people and situations that they faced: “It was really challenging emotionally. We went in one resident’s room and she had … her shirt bunched up and in her mouth and she was chewing on her shirt. My instructor helped remove it but she [the resident] just looked like she was in a lot of pain and maybe that was why she was chewing on her shirt.” In another situation, it was noted that: “We [DH students] were approached by one older man and he was saying, ‘Can you guys get me out of here?’ and we were like, uhm, now what?”

6. Appreciation for the practicum experience

Even with many challenges and frustrations experienced by the students, they still expressed appreciation for how much they learned during the practicum, with the onsite experience enriching their classroom, theory based learning. As one student noted, “I think it was a great idea and I’m so glad [the practicum] was started. Just the exposure for us as some students would have no idea about the cognitive changes and the combative ways. We would not ever have seen that and no matter what, it’s just a great experience and it is good to have it.” It also helped students become more aware of the need to improve the standards of oral care provided to LTC residents, for as another student said, “I learned a lot. We hear in our class that this population has poor oral health and are under served but to actually see how bad it is, that gets your mind going. What is being done? What can be done?” Students therefore recognized the value for having the practicum, and supported further developing and continuing the practicum: “Hopefully, [the practicum] can grow and improve in some areas” and, “…maybe this first year was somewhat unorganized and we lacked some communication, but now it gives us hope that improvement will be made.”

From the interviews that we conducted with the registered dental hygienists who were clinical instructors, qualitative analysis of the transcripts identified the following two themes: challenges in the facility context, and challenges and enhancements for student learning.

1. Challenges in the facility context

The RDH instructors identified numerous challenges that arose from the situations they encountered at the LTC facilities, frequently echoing sentiments expressed by the students. They noted that it was difficult to work within the daily routine and activities of the residents. The scheduled time of the practicum being from 9 a.m. to 3 p.m., did not coincide with when morning mouthcare was provided, leading to the suggestion that a start time of 7 a.m. would be better, to be onsite when the mouthcare was provided by HCAs. Differences were found in staff attitudes towards the DH group at the two facilities, for it was noted that staff in facility #1 were accommodating and generally helpful, although the DH group did not feel as though they were a part of the health care team. Staff in facility #2 were not welcoming to the DH group, and it was noted that: “I think if we didn’t show up, I do not think anyone would miss us.” It was also expressed that: “There needs to be a better system to incorporate us into the daily flow.” RDH instructors also commented that HCAs were extremely busy, and so there was minimal interaction with them, preventing the HCAs from being involved in mouthcare instruction by the students. And finally, the RDHs expressed uncertainty regarding follow up on the recommendations for oral care for residents: “We made comments in the chart but I am not sure what happened after that.”

2. Challenges and enhancements for student learning

The RDHs were able to provide important feedback as instructors as to their perceptions on the student experience. One practical concern that was noted was that facility #1 was very crowded, with no place to have a pre and post case discussion in private, which hampered learning opportunities. RDHs were aware that the students were often overwhelmed with emotion from their interaction and observation of residents: “I would ask if this was their first time in a nursing home and I was surprised at how many said yes.” As a result, students needed a lot of coaching and encouragement. Recognizing that there was much variability in comfort level of students and their ability to communicate with residents, one RDH noted that: “I tried to partner a weaker communicator with a stronger one.”

RDHs also felt that students should have had more didactic preparation prior to having the practicum experience, although some did extremely well. The instructors noted that students recognized the challenges of doing oral assessments in the resident’s room, such as the lack of light and difficulty using a head lamp or a flash light. They also acknowledged some of the physical challenges facing students when they tried to complete oral assessments with some residents, noting: “There were a few residents [for whom] we used six handed Tai Chi in order to provide effective care.” Tai Chi is a form of Chinese martial art emphasizing gentle force and a sensitive response to the movements of others with whom one is in contact. It was also noted by the RDHs that it was challenging for students to decipher the complex resident chart, but that it was good experience for students to review the charts and thus to learn about the complexity of the residents and about the different assessments.

DISCUSSION

Many lessons were learned from insights we obtained from the DH students and the RDH instructors in our study of the ElderSMILES practicum. It highlighted many of the challenges of working in the LTC environment with its complex population. One of the main issues that arose concerns the emotional challenges students face working with LTC residents for the first time. Similar challenges have been reported in other studies of student practicums in LTC, which often highlight inadequate preparation causing students to feel emotionally overwhelmed, and thus, to be potentially discouraged from returning to LTC upon graduation. For example, as reported in one study, after second year Bachelor of Nursing students completed a 3-week clinical placement in LTC facilities working
specifically with dementia patients, results indicated that students were, on the whole, completely unprepared for dealing with residents with dementia, having little or no knowledge and experience from which to draw. Students mainly reported experiencing fear, confusion, shock, and sadness. It was also revealed that the students did not receive adequate support from nurse mentors, the latter of whom underestimated how apprehensive and naïve the students were. It was concluded that, unless nursing students receive a far more comprehensive education about dementia, it is likely that their unpleasant experiences in LTC during clinical placements will undermine their interest in working in such settings upon graduation.

Increased preparedness before a practicum appears to be a key element in the effective socialization of students into an LTC environment. In two studies of dental students who participated in LTC practicums, it was found that there was a significant gap between what they learned in the classroom and what they found to be the case in practice, particularly concerning the complexity of the LTC environment and residents. Similar to the results of our study, students suggested their knowledge and training was not sufficient to adequately prepare them for the practical challenges of working with the LTC population. However, despite this knowledge gap, the students did report overall positive experiences and an increased sense of professional responsibility towards the older adult population, and this is also what we found to be the case in our study.

Most of the previous studies done on student practicums in LTC, while highlighting similar challenges to those we encountered, did not involve DH students, but only students in other health disciplines. The oral health care provided to LTC residents has been shown to be severely inadequate making it imperative that DH curricula address this issue and develop practicums like ours, to increase the future likelihood of having a regular DH presence in LTC. One study which involved a collaboration of nursing and dental hygiene—consisting of clinicians and students from both disciplines—was able to address one of the main challenges that we encountered in our practicum, namely the difficulty DH students had working with the LTC residents. In this collaborative study, nursing members of the team were able to use their specific training to interact with the residents in such a way that minimized disruptive or resistive behaviours, enabling the DH members of the team to use their specific training to conduct oral health assessments, scoring oral hygiene and DMFT (decayed, missing, and filled teeth). Perhaps if the students in our practicum had been able to interact more effectively with the LTC staff, it may have had a similar result, reducing some of the physical and emotional challenges faced by our students when they were working with the LTC residents.

In addition to identifying challenges, numerous recommendations were made by the students and RDH instructors who took part in our study, which will enable us to modify the practicum in ways that will address some of the problems encountered in its first year of implementation. The recommendations include:

- Increasing classroom theory content prior to the practicum to better prepare students to manage and work with complex residents who have cognitive and physical impairments.
- Developing clear protocols for various scenarios that students may face.
- Increasing awareness with staff at the facilities as to what students are doing, in order to lead to more student–staff communication and interaction.
- Trying to ensure that LTC staff is present when the students are onsite.
- Providing oral care in service training sessions for LTC staff.
- Developing and establishing protocols for follow up in regards to referrals and recommendations made for residents.
- Starting the practicum earlier in the academic year to provide the students with more experience.
- Scheduling of the daily practicum hours to coincide better with the daily schedules of the residents.

Since the implementation and evaluation of the ElderSMILES practicum, many of these changes have been made and the practicum continues to be developed and offered. More theory has been added to the didactic course that accompanies this practicum, and case scenarios are being developed to facilitate small group discussions in class. Some detailed protocols have been developed to guide clinical instructors and students when onsite at the practicum and more mock scenarios are being created that will be used for learning activities in class time.

The practicum is in its third term onsite; it has been noted by the clinical instructors that dental hygiene has established a known presence at the facilities and that it took more than the initial 13 week term for this relationship to be developed. Additionally, at one facility early in 2013, students were able to provide numerous in service education sessions for the staff and the sessions were very well attended. The clinical instructors have also been able to discuss follow up referrals and recommendations with the registered nurse on the units who are responsible for ensuring any recommendations made in a resident’s care plan are attended to. As we complete our third term onsite in the same LTC facilities, relationships are developing with facility staff and we have an increased presence and involvement in the oral care for residents.

The scheduling of the practicum has remained the same both in terms of when it is held during the academic year (winter term) and in terms of hours of the day, 0900–1530 hours. Consideration has been given to increasing the length of time students spend onsite for the LTC practicum. However, other commitments in the DH program would have to shift to accommodate the change and these are being considered. The students were onsite from 0900 to 1530 hours, and these hours were set to accommodate the facility schedules around mealtimes and other activities. For the most part, the hours were appropriate for the practicum except for the fact that health care aides perform any daily mouthcare for residents when they are getting the residents up in the morning and ready for the day. Therefore, this created a challenge for the students.
to interact with the HCAs to offer any guidance for their daily mouthcare techniques or to demonstrate any oral health issues for them to be aware of and possibly report. The staff in service sessions were increased this year at one facility in an attempt to provide further education for staff on oral health issues and daily mouthcare techniques. We believe that the changes we have made to the practicum, arising from what we learned from the results of this study, will diminish some of the challenges that students face. We intend to conduct additional qualitative studies in order to assess whether or not these changes lead to a more positive experience for the students that may ultimately contribute to their socialization into the LTC environment.

CONCLUSION
Student feedback from our study suggests that the ElderSMILES practicum was a huge awareness building experience for them. Comments concerning their appreciation of the practicum confirm our premise that it will serve the dental hygiene profession well if students are exposed to the long term care environment prior to graduating. As has been found in similar studies of LTC practicums in other health professional programs, we were able to provide students with essential practical knowledge and experience working with older adults as well as build within them a desire and perhaps even a sense of obligation to work in LTC upon graduation.

This study clarified elements of our practicum that required further assessment and development in order to address the challenges encountered by the students. We are optimistic that future implementations of this practicum, incorporating lessons learned from this study, will produce a more positive educational experience for students, emphasizing the rewards of working with this population. Follow up studies of graduates who have completed this and other LTC practicums will be essential to determine how many choose careers working with the growing older adult population, and thus if socialization efforts within educational programs have been successful.

Acknowledgements
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CDHA 2013
National Conference
CELEBRATING OUR ROOTS, OUR WINGS
October 3-5, 2013 - Toronto

Celebrating 50 years of CDHA & 100 years of the dental hygiene profession worldwide
WELCOME MESSAGE

Sandra Lawlor, RDH, BA(Psych), BSW

On behalf of the CDHA board of directors, I would like to invite you to our 2013 national conference in Toronto, Ontario. We look forward to seeing you in Ontario’s capital city, Toronto, where we will explore the conference theme “Celebrating our Roots…Our Wings” in honour of CDHA’s 50th anniversary and 100 years of the dental hygiene profession. A wide range of topics and exciting social events has been planned to provide registrants with the opportunity to learn from and network with each other. See you in Toronto!

TRADESHOW / EXHIBITS

Thursday, October 3, 5:00 – 9:00 p.m.
Join the exhibitors and other delegates at the opening reception. View new products, speak to company representatives and connect with dental hygienists from across Canada.

Friday, October 4, 9:00 a.m. – 4:30 p.m.
Enjoy buffet lunch in the exhibit hall. The trade show will be open to delegates all day. Be sure to visit the CDHA booth to receive a special gift.

REGISTRATION*

Early bird special! Register before September 15 and save up to $175 on your registration fee. Visit www.cdha.ca/2013conference

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* Additional fees apply for pre-conference workshops. Registration now open.

CONFERENCE SITE AND ACCOMMODATION

The conference will be held at the Toronto Airport Marriott Hotel, located close to Pearson International Airport, and just minutes from Toronto, Brampton, and Mississauga. A block of rooms has been reserved for CDHA 2013 delegates and exhibitors. Reservations must be made by Wednesday, September 11, to secure the special conference rate of $135/night (plus tax) for the standard room.

Reservations can be made online at: https://resweb.passkey.com/go/CDHA2013
Reservations Toll Free: 1-855-823-6348
Reservations Local Phone: 416-674-9400
Quote code CDHN.

TRANSPORTATION

Toronto is served by Pearson International Airport. For transfer from the airport to the Toronto Airport Marriott Hotel, complimentary shuttles are available by calling 1-416-674-9400.

Airlines

Air Canada is offering CDHA delegates discounted travel fares from Thursday, September 26 to Saturday, October 12. Book online at www.aircanada.com and quote promotion code NF4W4ND1 in the search panel. Discount applies only to Tango Plus and higher flights.
SOCIAL EVENTS

Plan to join the fun at one or more of the following social activities.

THURSDAY, OCTOBER 3
• Welcome reception dance party and exhibit extravaganza

FRIDAY, OCTOBER 4
• Those were the days—buffet luncheon in the exhibit hall
• Birthday party—celebrate 50 years of CDHA and 100 years of the profession SUNSTAR
• Chartered bus to downtown—gather some friends and enjoy a night on the town (additional fees apply)

SATURDAY, OCTOBER 5
• SunLife™ sponsored breakfast (limited to 100 people)
• Awards luncheon and AGM
• Celebrate in the sky—dinner atop the CN tower (additional fees apply)

PRE-CONFERENCE WORKSHOPS*

THURSDAY, OCTOBER 3—FULL DAY WORKSHOPS

Sign up for one of the five limited attendance workshops with a concentrated focus.

1. Skills for Job Seekers Workshop
2. Annual Educators’ Workshop
3. Clinical Refresher Workshop—Infection Prevention and Control & Maintain Your Edge
4. Mastery of Skills Workshop—hands on instrumentation session
5. Reach New Depths in Periodontal Therapy Workshop—hands on instrumentation session

PLENARY

Eva Grayzel, BA
Founder of Six-Step Screening

Kate O’Hanlan, MD, FACOG, FACS, SGO
Founder of Laparoscopic Institute for Gynecologic Oncology (LIGO)

Friday, October 4, during opening ceremonies from 8:00 to 10:00 a.m

TONGUE TIED: A STORY NOT SILENCED BY ORAL CANCER

At age 33, Eva Grayzel, a performance artist, developed an ulcer on her tongue, eventually being diagnosed with late stage oral cancer and given a 15% chance of survival. Laugh, cry, and feel the power of gratitude as Eva describes her delayed diagnosis and how she found the strength to persevere through radical treatment. Experience an oral cancer patient’s firsthand account.

Saturday, October 5, from 8:00 to 10:00 a.m

GYNEDONTICS: EXPLORING THE HIDDEN LINKS

Dr. Kate O’Hanlan, a surgeon for all pelvic problems including cancers, will review the advice we give our clients around oral cancer screening and self care, and correlate it with other screening standards. Learn to listen to your inner healthy messages and follow the screening standards for optimal total body health. Protect your own health first to actively benefit yourself, your family, your community and your clients.

Saturday, October 5, during closing ceremonies from 5:00 to 5:45 p.m.

DENTAL HYGIENE THROUGH THE DECADES

A panel of past CDHA presidents, representing each of the six decades of our existence, will discuss the evolution of CDHA and the profession in a moderated discussion. They will share victories and struggles faced during their time on the CDHA executive. Through the panel’s stories, participants will gain a unique perspective and realize that although our roots are deep, our wings are still spreading.
EDUCATIONAL PROGRAM

Preliminary list of topics and speakers (subject to change)

FRIDAY

Oral Cancer 2013: Are you up to date?
David Clark, BSc, DDS, MSc., (Oral Pathology) FAAOP, FRCDC

The 4-Cs in Solving the Caries Puzzle
Lillian Caperila, RDH, MEd

Gyn Phys-Understanding Your Gynecology and Oral Health (“Gin Fizz!”)
Kate O’Hanlan, MD, FACOG, FACS, SGO
Founder of Laparoscopic Institute for Gynecologic Oncology (LIGO)

Preparing for a Health & Safety Inspection: Guidance for Dental Practices
Leslie Sanderson, RDH

Getting to the Root of the Problem: Misconceptions About Learning
Adam Persky, PhD, FACSM

Teeth Tell Tales: Join the Fight Against Woman Abuse
Sandra Lawlor, RDH, BA(Psych), BSW

Oral Health Promotion in Infants and Young Children—How, when, why?
Gajanan (Kiran) Kulkarni, BDS, LLB, MSc, DPed Dent, PhD, FRCD(C), Dip ABPD

Social Media Tutorial
Angie D’Aoust, BA

Poor Oral Hygiene, Dependency and Swallowing Impairment: Pneumonia’s Perfect Storm
Catriona M. Steele, PhD, CCC-SLP, BRS-S, S-LP(C), ASHA Fellow

Your Job Shouldn’t be a Pain in the Neck
Diane Grondin, DC, MHK

A Chair in the Woods
Kathleen Bernardi, RDH

The Profitable Hygienist: Your Role in the Oral Health Industry
Timothy A. Brown, CEO of ROI Corp.

MEMORY LANE EXHIBIT

The Dixon Room hosts the Memory Lane Exhibit of memorabilia, celebrating the history of the profession and CDHA’s golden anniversary. These items have been graciously submitted by members and dental industry partners.

SATURDAY

Infection Prevention & Control—What You Need to Know
Linda McLarty, BA

Open Wide Canada – Why Oral Health is an Important Public Health Issue
Dr. Peter Cooney, Chief Dental Officer, Health Canada

Aligning Your Instrumentation Skills and Preserving Your Professional Career
Lillian Caperila, RDH, Med

Reset Mindsets Through Story
Eva Grayzel, BA

How Can Dental Hygienists Incorporate Orofacial Myology into their Practice?
Vera Horn, RDH, COM

Medical Emergencies in the Dental Office: Is There a Doctor in the House?
Peter Nkansah, MSc, DDS, FADSA, Dip.Anaes, Spec. Dental Anaes (ON)

How Comfortable is Your Comfort Zone —Truly?
Beth Ryerse, RDH

Ready, Set, Go! Demystifying Practice Management Software, Billing Codes and Claim Forms for Independent Practice
Panel moderated by Ann E. Wright, RDH, MBA

Independent Dental Hygiene Practice: From Sea to Shining Sea
Panel moderated by Ann E. Wright, RDH, MBA

SCIENTIFIC PROGRAM

The conference abstract review committee used a scientific process to conduct a peer review of the abstract submissions, selecting the highest quality oral and poster presentations.

Oral presentations (Quebec room):
- Friday, October 4, from 10:30 a.m. to 5:00 p.m.
- Saturday, October 5, from 10:30 a.m. to 4:15 p.m.

Poster presentations (Dixon room) Friday and Saturday
Poster presenters will attend in person at the following times:
- Friday, October 4, during lunch hour (12:30 to 1:00 p.m.) and breaks (10:00 to 10:30 a.m. and 3:30 to 4:00 p.m.)
- Saturday, October 5, during morning break (10:00 to 10:30 a.m.)
Helicobacter pylori eradication revisited

Our senior dental hygiene class is currently taking our course on Evidence Based Practice and have been learning about good study design and conduct along with publication standards, particularly peer review. We have found the CJDH to be an excellent source of articles to review for this purpose. Recently we read and critiqued the Short Communication from the February issue of CJDH, “Full mouth ultrasonic debridement in Helicobacter pylori eradication from the oral cavity: A case series”. We have come up with the following list of questions about research design that we were unable to answer.

1. Why was the selection of subjects not limited to those with no stomach bacteria following STT? Instead, the study used two subjects (one with gingivitis and one with periodontitis) who still harboured bacteria in the stomach. The presence of the bacteria in the stomach prior to FMUD could affect the outcomes of eradication with FMUD.

2. According to Table #1, in post test stomach micro analyses, how can the study show if these subjects were re-infected from the mouth if they already had the bacteria in the stomach prior to starting?

3. If no stomach bacteria analyses were done post-test; how do we know if any oral bacteria were transmitted to the stomach?

4. The micro was done three months post FMUD. There was no micro performed immediately post FMUD to see if the intervention did eliminate the bacteria. So those with stomach micro could be re-infected up the gastric route.

5. There is no information on the type of ultrasonic tips used. Did they reach the bottom of the sulcus as would be the case with the modified tips or was merely a universal used? In fact the discussion considers the only option for reaching the sulcus floor is surgery. As dental hygienists, we would consider Cavitron Slimlines, which are known to reach beyond 5 mm.

6. Why was there no control group used?

We wondered if the author would be willing to provide the rationale for his methodology in view of these questions. Many thanks!

Niagara College Dental Hygiene Class of 2013
Instructor, Marilyn Goulding, RDH, BSc, MOS

Author’s response

Thank you for the opportunity to clarify certain research aspects of this article. Please find my responses to your numbered questions below:

1. In fact, this is a case series performed to assess the potential impact of FMUD for the eradication of H. pylori. Case series are considered only as observational studies that assist researchers to raise initial questions for future research. Thus, our objective was to see if we could employ this therapy in a future research.

2. As commented above, our intention was not to check stomach re-infection. Instead, we wanted to know whether the test therapy could be considered viable for patients presenting the condition reported in the study (i.e., eradication of H. pylori from the oral cavity by means of a single session of FMUD).

3. Once again, our objective was simply to verify the feasibility of using FMUD for the eradication of H. pylori from the oral cavity. Based on preliminary results, additional research may be planned to include a larger sample of subjects, as well as to assess, for instance, re-infection of the stomach. In summary, in order to propose such an assumption, we had to first investigate the local potential of the FMUD therapy.

4. No immediate microbiologic analyses were performed because bacteria may be “hidden” in the soft tissues. It is well established that periodontal bacteria may penetrate into the connective tissues from the gingiva. We opted for a three month follow up to allow an appropriate period of re-colonization to occur.

5. Yes, periodontal tips. As I used to say to my students, “You have to use a tip that fits the anatomy of the tooth as well as the defect.” Nowadays there are several
types of periodontal tips available on the market. In our clinic, we have found those from EMS Swiss Instruments to be the ones we prefer. We used the S6 tips—they are designed for subgingival scaling—in this study. The hand instruments we used were 5-6, 11-12 and 13-14 Gracey curettes.

6. Case series are proposed to evaluate the potential of a specific question that has not yet been asked. Based on results, a randomized controlled clinical trial following the CONSORT statement may be conducted.

Leandro Chambrone, DDS, MSc, PhD
Specialist in Periodontology, Specialist in Orthodontics & Dentofacial Orthopedics
Professor, Dental Research Division, Department of Periodontics, Guarulhos University, Post-Doctoral Research Fellow, Division of Periodontics, School of Dentistry, University of São Paulo
Cochrane Oral Health Group Member, The Cochrane Collaboration, UK
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ABSTRACT

Objectives: The aims of this study were twofold: 1) to evaluate the prevalence and severity of traumatic gingival recessions (GR) in a sample of dental students; and 2) to assess the influence of oral hygiene related factors in the development of such lesions.

Material and Methods: From the initial sample of 250 dental students enrolled, 80 fulfilled the inclusion criteria. One calibrated examiner interviewed all students using a written questionnaire. The same examiner then assessed the presence of buccal GR. Logistic regression analysis was performed to investigate the association between GR, hygiene habits and deterioration of toothbrush bristles.

Results: Overall, the prevalence of GR was 86.25 per cent, and the average rate of GR per patient was 4.05. Only the independent variable—deteriorated toothbrush bristles, p=0.02—was found to correlate with the occurrence of GR, with odds ratio of 2.77 and 95% confidence interval of 1.15–6.70.

Conclusion: The development of GR was associated with deterioration of toothbrush bristles. Further investigation, focusing on the effect of traumatic toothbrushing, is required.

Key words: gingival recession, gingival recession, epidemiology, toothbrushing, adverse effects, oral hygiene

INTRODUCTION

The primary goal of toothbrushing is to remove the dental biofilm deposits or dental plaque that forms on tooth surfaces comprising enamel surfaces and exposed root surfaces. Gingival recession (GR) is a term that designates the oral exposure of the root surface due to a displacement of the gingival margin, apical to the cement enamel junction (CEJ).1–5 GR is linked to the deterioration of dental aesthetics, root abrasion, caries and dentine hypersensitivity.6

Data from diverse studies revealed that gingival and osseous anatomical factors—such as muscular inserts near the gingival margin, osseous dehiscence—chronic trauma, periodontitis and irregular tooth alignment are the main causative factors leading to the development of recession type defects.1–5,7–9 Different epidemiological surveys performed in representative samples of adult populations also revealed that more than a half of the adult population presents at least one tooth with GR.10–12

The development of traumatic GR is assessed by the impact of different traumatic variables—for example, toothbrushing technique, frequency of toothbrushing and type of toothbrush bristles—on the development of recessions. The aims of this study were twofold due to the importance of performing an adequate toothbrushing for the maintenance of periodontal health and of the possible role of this procedure to the development of GR.

1. Evaluate the prevalence and severity of traumatic gingival recessions in a sample of dental students.

2. Assess the influence of oral hygiene related factors in the development of these lesions.

METHODS

Study population and exclusion criteria

The present descriptive cohort trial was conducted to collect data from the prevalence of GR in a sample of high–medium social class of dental students. The study protocol was approved by the Ethics on Research Committee of the Methodist University of São Paulo where it was conducted, and is in accordance with the Helsinki Declaration of 1975 as revised in 2000. The subjects participating in the study were non smoker volunteers who received detailed information about the proposed research, and gave
informed consent in writing. Subjects with age <18 years, a known systemic disease, destructive periodontal disease, locomotor problems, with fewer than twenty permanent teeth in occlusion or undergoing active orthodontic treatment were excluded from the study. In total, 250 dental students had enrolled, of which 80 participants—20 males and 60 females—meeting the inclusion criteria were selected (Table 1).

**Interview and clinical examination**

Initially, all participants were asked to bring their toothbrush for a visual evaluation of the condition of bristles. They answered five questions of a questionnaire on their hygiene habits. The examiner assessed the condition of their toothbrush’s bristles and responded to the final query, item 6 of the questionnaire. Subsequently, buccal gingival recession, measured from the CEJ to the gingival margin at the deepest point, was recorded by the same calibrated investigator—with intraclass correlation=0.85—using a MM Goldman Fox colour style periodontal probe. Calibration was performed in two different full mouth examinations, with a 48 hour interval between one and the next, in eight subjects or 10 per cent of the final sample size who did not participate in the study. The measurements were rounded to the nearest 0.5 mm. Third molars and teeth, presenting prosthetic restorations at the level of the gingival margin, were not included.

**Statistical analyses**

The analyses were performed using the NCSS 2007 software package, Number Cruncher Statistical System, NCSS, Kaysville, UT, USA. Descriptive statistics were used to synthesize collected data. Logistic regression analysis was performed to investigate the association between hygiene habits with gingival recession due to toothbrushing. The dependent variable was the presence of gingival recession >2 mm; subjects who had at least one tooth with such a defect were more likely to experience traumatic gingival recession. An odds ratio with a 95% confidence limit was calculated. A significant level for rejection of the null hypotheses was set at $\alpha=0.05$.

**RESULTS**

The total number of teeth present in the study cohort of 80 students was 2,197 (mean 27.46 ± 1.30). During clinical examination, 324 teeth (14.74% of all teeth present) showed GR. From these teeth, 236 (72.84%) showed a recession depth (RD) of 1 mm, 84 teeth (25.93%) showed RD of 2 mm, and four teeth (1.23%) showed RD of 3 mm (Table 2). The average rate of GR per participant was 4.05 teeth. More than a half (54.32%) of the GRs affected anterior teeth, incisors and canines. However, the majority of teeth with GRs were premolars—45 mandibular premolars and 88 maxillary premolars—whereas molar teeth were the least affected (Table 3). Table 4 shows the number of teeth with GR: 11 students (13.75%) had teeth with no GR, four students (8.75%) had one tooth with GR, 13 students (16.25%) had two teeth with GR, 10 students (12.50%) had three teeth with GR, and 39 (48.75%) had four or more teeth with GR. In this study, almost one-fifth

<table>
<thead>
<tr>
<th>Gender</th>
<th>With gingival recession (GR)</th>
<th>Without gingival recession (GR)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18 (22.5%)</td>
<td>2 (2.5%)</td>
<td>20 (25.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>51 (63.8%)</td>
<td>9 (11.2%)</td>
<td>60 (75.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>69 (86.2%)</td>
<td>11 (13.8%)</td>
<td>80 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teeth</th>
<th>Upper right</th>
<th>Upper left</th>
<th>Lower left</th>
<th>Lower right</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>23</td>
<td>25</td>
<td>11</td>
<td>17</td>
<td>76</td>
</tr>
<tr>
<td>Canine</td>
<td>11</td>
<td>19</td>
<td>23</td>
<td>23</td>
<td>76</td>
</tr>
<tr>
<td>1st premolar</td>
<td>30</td>
<td>24</td>
<td>11</td>
<td>11</td>
<td>76</td>
</tr>
<tr>
<td>2nd premolar</td>
<td>23</td>
<td>11</td>
<td>14</td>
<td>9</td>
<td>57</td>
</tr>
<tr>
<td>1st molar</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>2nd molar</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>88</td>
<td>65</td>
<td>68</td>
<td>324</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teeth</th>
<th>&gt;1 mm</th>
<th>&gt; 2 mm</th>
<th>&gt; 3 mm</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incisors</td>
<td>81</td>
<td>19</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Canines</td>
<td>37</td>
<td>35</td>
<td>4</td>
<td>76</td>
</tr>
<tr>
<td>Premolars</td>
<td>111</td>
<td>22</td>
<td>0</td>
<td>133</td>
</tr>
<tr>
<td>Molars</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>84</td>
<td>4</td>
<td>324</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>0 to 3 recessions</th>
<th>4 to 9 recessions</th>
<th>&gt;10 recessions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4 (5.0%)</td>
<td>12 (15.0%)</td>
<td>4 (5.0%)</td>
<td>20 (20.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>37 (46.2%)</td>
<td>21 (26.3%)</td>
<td>2 (2.5%)</td>
<td>60 (80.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>41 (51.2%)</td>
<td>33 (41.3%)</td>
<td>6 (7.5%)</td>
<td>80 (100.0%)</td>
</tr>
</tbody>
</table>
of the GR (20.67%) was found in only six students (7.50%), diagnosed with ten or more GR each.

The written questionnaire (Figure 1) recorded hygiene habits and data from students with GR as reported in Table 5. However, the degree of association between the dependent variable ≥2 mm and the suspected predictor factors was investigated by statistical analysis in an attempt to avoid confounding effects. The results of the logistic regression analysis are shown in Table 5. The independent variable—deteriorated toothbrush bristles—was found to correlate with the occurrence of GR (p=0.02) with odds ratio of 2.77 (95% confidence interval: 1.15 – 6.70). On the other hand, no significant differences (p>0.05) were found between the dependent variable and the other predictor factors such as self reported excessive pressure during toothbrushing, type of bristles, and frequency of toothbrushing. The variable, powered toothbrush, was not entered into the regression analysis due to the low number of subjects who had reported the use of this device.

**DISCUSSION**

GR is often responsible for the majority of attachment loss during the first thirty-five years of age. The purpose of the present study was to assess the relationship between hygiene habits and the development of traumatic recession type defects in a sample of dental students between 18 and 30 years of age. Overall, the prevalence of GR was 86.25 per cent, and the mean rate of teeth with GR per patient was 4 teeth. Furthermore, nineteen participants (23.75%) accounted for almost half (49.69%) of the sites with GR. These findings were similar to those presented in other studies.

The influence of different independent variables—deteriorated toothbrush bristles, self reported excessive pressure during toothbrushing, toothbrushing technique, type of bristles, and frequency of toothbrushing—on traumatic toothbrushing were estimated with logistic regression analysis (Table 5). Only one variable, deteriorated toothbrush bristles, was statistically significant (p=0.02). However, other local systemic and environmental factors such as gingival anatomy, smoking, parafunctional oral habits and previous orthodontic treatment, not evaluated in this study, may contribute to the development and severity of the recession defects.

Takehara et al. reported that subjects who brushed their teeth with a 400 g pressure were 2.43 times more likely to develop GR. Results from a systematic review showed potential associations among duration of toothbrushing, frequency of toothbrushing, frequency of changing the toothbrush, type of bristles, and toothbrushing technique. Molar teeth were less susceptible to GR, while premolars were the most affected teeth (Table 2). On the other hand, canines were the teeth with the highest percentage of GR >2 mm (12.03%). In general, approximately two-third of the GRs found (72.83%), had a recession depth of 1 mm (Table 3).

This study had some areas that were not explored. First

<table>
<thead>
<tr>
<th>Toothbrush</th>
<th>Number</th>
<th>Students with GR</th>
<th>Students with at least one tooth with GR &gt;2 mm</th>
<th>Regression coefficient</th>
<th>Standard error</th>
<th>Wald Z-value</th>
<th>Wald Prob-value</th>
<th>Odds ratio</th>
<th>Confidence interval 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deteriorated bristles No</td>
<td>38</td>
<td>44</td>
<td>56</td>
<td>1.02</td>
<td>0.44</td>
<td>2.27</td>
<td>0.02</td>
<td>2.77</td>
<td>(1.15 - 6.70)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>42</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft bristles</td>
<td>No</td>
<td>69</td>
<td>69</td>
<td>-0.42</td>
<td>0.67</td>
<td>-0.63</td>
<td>0.52</td>
<td>0.65</td>
<td>(0.17 - 2.44)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>11</td>
<td>11</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toothbrushing frequency (&gt; twice a day) No</td>
<td>10</td>
<td>21</td>
<td>50</td>
<td>-0.06</td>
<td>0.64</td>
<td>-0.10</td>
<td>0.92</td>
<td>0.93</td>
<td>(0.26 - 3.29)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>70</td>
<td>59</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self reported excessive pressure during toothbrushing No</td>
<td>2</td>
<td>14</td>
<td>46</td>
<td>0.01</td>
<td>1.45</td>
<td>0.01</td>
<td>0.99</td>
<td>1.01</td>
<td>(0.05 - 17.63)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>78</td>
<td>66</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bass technique</td>
<td>No</td>
<td>40</td>
<td>54</td>
<td>-0.49</td>
<td>0.47</td>
<td>-1.05</td>
<td>0.29</td>
<td>0.60</td>
<td>(0.24 - 1.53)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>31</td>
<td>26</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powered toothbrush</td>
<td>No</td>
<td>78</td>
<td>78</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>2</td>
<td>2</td>
<td>-</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* The variable powered toothbrush was not entered in the regression analysis.
of all, only factors associated to traumatic toothbrushing were used in the statistical analysis. The association between age, gender, occlusion and anatomical conditions were not evaluated. Second, the sample size had only 32 per cent (80 participants) of the total pool of dental students examined. A sample size calculation of this selected group showed that only twenty-six study subjects would be necessary for this population of dental students. However, epidemiologic surveys are characterized by the representative sample of subjects.\textsuperscript{10,11} Third, data from other clinical measurements, such as periodontal probing depth and clinical attachment level, were not reported in this study. However all participants were examined, and none of them presented loss of periodontal attachment—cementum, alveolar bone and periodontal ligament.

Fourth, although students undergoing orthodontic treatment were not included in this study, the majority of the participants had previously undergone orthodontic treatment during adolescence. The dental literature seems controversial regarding the influence of orthodontics in the development of GR.\textsuperscript{18–21} Some studies found that the clinical crown length can be significantly improved following the buccal proclination of lower incisors.\textsuperscript{19,20} However, other investigators did not find significant differences.\textsuperscript{18,21} In the present study, it was opted not to include this variable in the statistical analysis due to the lack of precise information on the type of orthodontic therapy, period of treatment and anatomical conditions before treatment for each subject who had undergone orthodontics.

Fifth, the analyses were performed on participants presenting different clinical and systemic conditions than those found in representative samples. Gingival anatomical factors, mucogingival phenotypes, smoking habits, poor hygiene levels or known systemic diseases can modify the host response.\textsuperscript{4,22–24} Consequently, these conditions can cause more variability of the results when extrapolated to larger epidemiological surveys. Moreover, discrepancies among subjects presenting similar clinical and systemic conditions may occur. For instance, six subjects experienced ten or more GRs. This condition may be linked to other important factors that were not measured in this study.

CONCLUSION

In conclusion and within the limits of this study, analyses of the selected group of dental students suggest a significant association between traumatic toothbrushing—deterioration of toothbrush bristles—and development of buccal gingival recessions. Further investigation in clinical trials with larger samples is required, with a focus on the effect of traumatic toothbrushing.

REFERENCES


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- Critical Illness
- Term Life
- Extended Health Care
- Accidental Death and Dismemberment
- Office Overhead Expense
- Dental

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Life, and your teeth! are brighter... under the sun
A multi strategy approach for RDHs to champion change in long term care

Carol-Ann P. Yakiwchuk, DipDH, BScDH, MHS, RDH

ABSTRACT

Nearly 200,000 Canadians live in long term care (LTC); many are more than sixty-five years of age, frail, and dependent on others for their daily care. With the growing trend of older adults successfully retaining more of their own teeth longer in life, their need for assistance with daily oral care and access to onsite preventive dental hygiene care is significantly different than in any previous generation. Yet, oral healthcare is widely recognized as inadequate in care facilities, resulting in widespread oral disease, and challenges to residents’ overall health and quality of life. This article identifies dental hygienists as ideally suited to champion and sustain oral healthcare change in LTC. A multi targeted, multi strategy approach that extends beyond the focus of clinical care is proposed, along with strategies and tips for carrying it through. This proposed approach is based on dental hygienists’ years of experience in caregiver engagement, education and training, resource development, and interprofessional collaboration within the LTC environment, and is modelled on the ADPIE format.

RÉSUMÉ

Plus de 200 000 Canadiens et Canadiennes vivent sous des soins de longue durée (SLD); beaucoup d’entre eux, ayant plus de 65 ans, mènent une vie fragile et dépendent des autres pour leurs soins quotidiens. Vu la tendance croissante des adultes plus âgés à conserver leurs dents plus longtemps dans leur vie, leurs besoins d’assistance en matière de soins buccaux quotidiens et d’accès sur place aux soins d’hémiplégie dentaire différent de ceux de toutes les générations précédentes. Toutefois, la programmation des soins de santé buccale est grandement considérée comme étant inadéquate dans les services de soins, vu la vaste étendue de la maladie buccale et les dégâts que cela pose à la santé globale et à la qualité de vie des résidents. Cet article indique que les hygiénistes dentaires sont les intervenantes idéales pour promouvoir et soutenir la modification des soins de santé buccale de longue durée. La proposition comporte alors une approche à cibles et stratégies multiples, allant au-delà des soins cliniques proposés, et suggère des moyens de les réaliser. L’approche mise de l’avant se fonde sur les années d’expérience des hygiénistes dentaires en regard de leurs engagements relativement à la prestation des soins, à l’enseignement et la formation, au développement des ressources et à la collaboration interprofessionnelle avec les services de SLD. Le modèle suit le format ADPIE (analyse, diagnostic, planification, application et évaluation).

Key words: caregiver, dental hygienist, elderly, frail older adults, health promotion, long term care, oral health, oral hygiene

INTRODUCTION

A large number of the estimated 200,000 residents of long term care facilities (LTC) in Canada are more than sixty-five years old, frail, cognitively impaired, medically compromised, and dependent on others for activities of daily living. With older adults successfully retaining a larger percent of their natural teeth later in life than any previous generation, more and more individuals who enter care will require assistance in caring for their teeth. Yet, the provision of daily oral care, and access to professional dental care within care facilities remains significantly inadequate, resulting in widespread oral disease among dependent older adults both here in Canada and elsewhere.3–9

Inadequate dental plaque removal and the presence of oral disease can lead to significant oral health challenges for this population, including pain, infection, and tooth loss.6–7 An unclean, unhealthy mouth can also challenge a frail elder’s quality of life and overall health through reduced social interactions, weight loss, extensive dental treatment needs, and an increased risk for aspiration pneumonia (AP).6,7,10–12 There is now sufficient evidence that effective daily oral hygiene can reduce one’s risk for AP, an often fatal infection among the elderly care dependent population.11,12

Caregivers report many barriers and challenges surrounding oral care—competing priorities, a strong dislike for the task, a lack of knowledge, training, time, supplies, and administrative support, and dealing with care resistant behaviours.12–14 While there are many contributing factors to the current problem, past research efforts have predominantly focused on caregiver education.14–17 These interventions failed to demonstrate consistent sustainable improvements in residents’ oral health status, regardless of who delivered the training.14–17 However, several pilot studies reported positive outcomes using a designated staff champion.18,19 Once trained, the champion was responsible for providing daily oral care, mentoring staff, and helping build momentum among caregivers to provide daily care.18,19 Dental hygienists, in
their many roles as advocates, educators, clinicians, and health promoters can help garner staff commitment and momentum by supporting and mentoring staff champions. These collaborative partners can help identify and negotiate for structural changes that can then support caregivers’ daily oral care efforts in practical ways. The importance of partnering with internal champions who understand the context and culture of the organization cannot be understated as a key ingredient in translating health promotion efforts to sustainable oral healthcare change.

Dental hygienists, with their repertoire of critical thinking skills, knowledge in oral health sciences, and experience in managing diverse and often complex oral care needs of clients, are ideally suited to champion this change in LTC. A heightened sense of social responsibility towards vulnerable populations, enabling legislation, direct billing acceptance by insurance providers, and a shortage of employment opportunities provide the impetus for dental hygienists to consider this area of practice. Through the use of creative funding approaches, a number of dental hygienists are trail blazing this focused role in health promotion, and serving as role models and mentors for future LTC based dental hygienists.

This approach arose in collaboration with colleagues of the University of Manitoba’s Health Promotion Unit (HPU) during their years of striving to bring about oral health change among underserved populations. It is aimed at dental hygienists who are ready to take on a new challenge by leading oral health change in LTC.

**METHODS**

**Assessment: Gathering information and making decisions**

The problem of oral disease in LTC is complex, and requires a multi targeted approach that involves all stakeholders including administrators, nurses, frontline caregivers, allied health professionals, and family members. Before connecting with a facility, it is recommended that dental hygienists:

- Self assess their knowledge, attitudes, and beliefs about this population.
- Identify the regulatory requirements for independent practice.
- Develop a personalized learning plan that includes learning and mentoring opportunities. For example, in Manitoba, like minded dental hygienists learned and realized opportunities in LTC as members of an access to care study group supported by the Manitoba Dental Hygienists Association and the regulatory body [Wener M., Personal communication, December 9, 2012].
- Reflect on the degree of commitment they foresee as feasible and investigate options for remuneration.

Learning about and understanding the LTC environment and its challenges are paramount. An evidence based approach should be used to gather pertinent information from a variety of dental, dental hygiene, nursing, and other professional journals to build

---

**Table 1. Site visit checklist.**

| Facility: ___________________________ | Date: ___________________________
| Address: ___________________________ |

**Key contact information:** ___________________________

**The facility:**

- Number of beds
- Type of units ___________________________

**Policies:**

- Oral care policy*
- Resident bill of rights document*
- Philosophy of care*
- Welcome package for new residents*  
  * Obtain copies

**LTC staff:**

- Shifts
- Types and number of caregivers and allied health professionals
  - Staff education program
    - Ideal length and time of day
    - Audio-visual equipment
    - Group size

**Residents profile:**

- Average age

- Level of care required
- Prevalence of dementia, care resistant behaviour

**Oral care program:**

- Admission oral assessment
- Individualized daily oral care plan
- Quarterly oral screening
- Oral products
- Professional dental services: current access, facility space; funding
- Oral care barriers, needs, and wants
**Table 2. Essential components of a quality oral health program in LTC.**

<table>
<thead>
<tr>
<th>Essential components</th>
<th>Other resources include</th>
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<tr>
<td>☑ Internal oral health champions are identified</td>
<td>• Current information on caregiver engagement and training, assessment tools, policy development, oral-systemic research, specialized products, resources, and managing care resistant behaviours.</td>
</tr>
<tr>
<td>☑ Oral health professionals are part of the onsite healthcare team</td>
<td>• Site visits to speak with a variety of staff, and use of a checklist to help gather pertinent information (Table 1).</td>
</tr>
<tr>
<td>☑ Everyone in facility is on board, supportive and kept up to date</td>
<td>• Shadowing an RDH in LTC practice.</td>
</tr>
<tr>
<td>☑ Staff receive regular oral health education and hands on training, including on unit coaching</td>
<td>Effective listening and interview skills, detailed note taking, a non judgemental attitude, and a genuine willingness to learn and help are key strategies for success during this stage of assessment.</td>
</tr>
<tr>
<td>☑ Policies and protocols are regularly updated and enforced</td>
<td>Diagnosis and planning: Preparing oral health solutions</td>
</tr>
<tr>
<td>☑ Palliative oral care standards are in place</td>
<td>The next step in the process is to analyze assessment findings and to meet with LTC administrators and other decision makers to collaboratively formulate a plan based on realistic goals and measureable outcomes. A flexible approach is paramount as the plan will likely evolve and change based on valuable feedback and learning. Administrators, focused on improving resident outcomes and meeting standards, policies, and legislated requirements, often identify caregiver education as their primary need. When expertly delivered, these education sessions also provide an excellent springboard for caregivers to discuss organizational and personal barriers and propose realistic strategies to improve oral healthcare in their facility. As individuals plan their program, the anticipated outcome should be to create an interactive session that appeals to all learning styles using caregiver friendly terms. Introducing the session’s learning objectives and inviting participants to identify their learning needs can help ensure all receive the information they need. The educational session should highlight concrete benefits to providing oral care and offer realistic solutions for care resistant behaviours. Setting the stage by sharing a personal story about a resident’s oral health can be a powerful way to elevate the importance of a quality oral health program. The author’s group also liked to incorporate catchy phrases to help caregivers make the connection between dental and medical issues. Phrases like “oral care is infection control” and “gum disease can result in a hidden bed sore the size of the palm of your hand” raised eyebrows and helped attendees understand that although the mouth is “out of sight”, it is an important area of care that should not be ignored. Providing information on why oral care is integral to overall health and quality of life before teaching how to provide care, helps caregivers realize the deep significance of their role in preventing life threatening infections and makes them more receptive to learning. Once the plan is in place, dental hygienists are recommended to seek and incorporate feedback from other dental hygiene experts, gather resources to supplement caregiver knowledge, and create a demonstration kit that can be used for practice and discussions.</td>
</tr>
<tr>
<td>☑ Oral care products are available on site</td>
<td>• The Registered Nurses Association of Ontario has an extensive resource collection available at: <a href="http://ltctoolkit.rnabo.ca/resources/oralcare">http://ltctoolkit.rnabo.ca/resources/oralcare</a> #Education-Resources.</td>
</tr>
<tr>
<td>☑ Daily oral care is provided, documented, and evaluated for quality/frequency</td>
<td>• University of Manitoba’s Centre for Community Oral Health (CCOH) collection of LTC handouts and “how to” videos may also be helpful and are located at: <a href="http://umanitoba.ca/dentistry/ccoh/ccoh_longTerm">http://umanitoba.ca/dentistry/ccoh/ccoh_longTerm</a> CareFacts.html.</td>
</tr>
<tr>
<td>☑ Oral assessment is done initially, quarterly, and as needed</td>
<td>Implementation: Beginning with small steps</td>
</tr>
<tr>
<td>☑ Individualized daily oral care plans are based on current assessments</td>
<td>There are many stakeholders involved in the care of older adults, each with their own abilities, responsibilities, and priorities. Acknowledging each participant’s role and contribution communicates respect and understanding. When caregivers report common challenges, such as a lack of skill in performing oral care, recognizing their issues and barriers lays the groundwork for learning to take place. A crucial strategy which empowers caregivers is showing “how-to” demonstrations or videos, before having participants practise on typodonts or on willing residents. The demonstration kit should contain large handled toothbrushes, a proxabrush, floss wand and floss, denture brush, dry mouth products, multi sided speciality toothbrushes, mouth rests, typodonts, and dentures. Up to date handouts, which reinforce recommendations, provide caregivers with an ongoing resource to help}</td>
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improve their practice. Nurses and other caregivers often remark that they have never been taught comprehensive oral care, and appreciate the “why and how” method of information and hands on instruction.

While caregiver training is important and necessary, it must not be the sole focus of a dental hygienist’s efforts to champion change. The individual needs to implement a comprehensive plan that carefully considers the facility’s organizational context, and engage all levels of stakeholders using a variety of activities. Some suggestions are: working with managers to address barriers, speaking at the family council meeting, collaborating with other health professionals, contributing to the facility’s newsletter, training nurses and speech-language pathologists to screen for oral problems, updating the oral care policy, incorporating oral health information in the facility’s welcome package, having the gift shop or a local pharmacy stock recommended oral supplies, and working with others to ensure residents have access to affordable dental services within the facility. A list of important components of a LTC oral care program is provided, and represents the “big picture” vision shared with all stakeholders (Table 2). Personal attributes encompass a willingness to partner and collaborate with others, participate in research, solve problems creatively and propose novel, yet practical solutions. These attributes look far beyond the boundaries of clinical practice and caregiver education, and will serve each champion well as she or he works towards implementing improvements.

**Evaluation: Learning from others**

Evaluation, a critical component of any oral health program, affirms program effectiveness and identifies areas for improvement. A quality assurance program (QAP) is essential to help champion change by providing tangible evidence of the current program’s efficacy. A good QAP program should include a random sampling of chart audits and Minimal Data Set (MDS) entries, oral screenings, and evaluations of the condition, storage, and labelling of oral care supplies. Feedback from stakeholders should also be collected and considered, to help shape efforts and direction for caregiver training. The HPU evaluation form gathered information on participants’ knowledge (true/false questions), program appraisal, what they were surprised to learn, what they wanted more information on, areas they felt needs improving, and the level of priority they assigned to daily oral care. After each session, the collected feedback and any suggestions for improvement are reviewed. Participants’ feedback and QAP data can identify new areas of focus and be used to provide evidence to key decision makers as dental hygienists strive to bring forth positive change.

**CONCLUSION**

The current problem of oral disease among dependent older adults requires the leadership of an oral health expert. Dental hygienists, in their dual role as oral health promotion experts and clinicians, are ideally suited to become champions of change in LTC. Those new to this area of practice should adopt a skills development approach by reviewing the current literature and seeking additional learning and mentoring opportunities. Using the strategies suggested in this article, dental hygienists can have a significant impact on the quality of life and health of dependent older adults, and become important members of the interprofessional LTC team.

**Acknowledgement**

The presented approach to health promotion in LTC arose collaboratively with dental hygiene colleagues and partners. Mickey Wener and Mary Bertone, at the University of Manitoba's Centre for Community Oral Health (CCOH). The author would also like to recognize the role of the CCOH, the faculty of Dentistry’s non profit department, in addressing the oral health needs of underserved populations in a non profit, upstream approach.

**REFERENCES**


ANNOUNCING … Your chance to shine!  
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Made possible through the contributions of CDHA and its corporate partners, the CDHA Dental Hygiene Recognition Program (DHRP) is designed to recognize the efforts and accomplishments of CDHA members including practising dental hygienists and dental hygiene students. Submissions in a variety of categories are now being accepted. Deadline is May 31.

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Book reviews in the CJDH

The Canadian Journal of Dental Hygiene is opening a new category for scholarly reviews of professional books—recently published or not—that are of compelling interest to dental hygienists. Your review should evaluate content, quality and significance of the book regarding current context and future implications of dental hygiene practice or research. Your review should be between 500 and 1000 words.

We encourage all members to participate. If you are interested in this writing proposition, you may wish to consult the resource How to Write a Scholarly Book Review for Publication in a Peer-Reviewed Journal. (Lee AD, Green BN, Johnson CD, Nyquist J in J Chiropr Educ. 2010 Spring; 24(1): 57–69.) Available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC2870990/ Contact journal@cdha.ca
When we speak of ethics and professionalism it is difficult to determine the boundaries of each in defining them. The terms are inextricably tied together, and are often used interchangeably. Nevertheless, they are essential to the role of the dental hygienist, whether in private practice, community service or public health. As the healthcare map widens to include more health disciplines in integrated approaches to patient care, more thought is being given to the teaching of the skills involved in interprofessionalism. But before teaching these skills, it is important to appreciate both the philosophy and application of them. Research has been conducted and papers written on current use and practice of ethics and professionalism across the health disciplines, although perhaps more so in nursing, medicine and dentistry than in dental hygiene. But much of what has been written is directly applicable to the field of dental hygiene and serves as valuable resource in preparing dental hygienists to work in new and demanding environments. The following titles have been selected as references for further study and discussion.

Search terms, “ethics in oral health care”, “professionalism in oral health care”, “ethics and professionalism in health care”, gathered these peer reviewed articles from the National Library of Medicine’s database, PubMed, and from Google Scholar. Not all of these articles are available as open access, and we recommend readers to request their university or professional organizations to access these suggested readings.

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2. Systematic review – between 3000 and 4000 words, abstract in 250 words and references as necessary.
3. Literature review – no longer than 4000 words and as many references as required. Abstract within 250 words.
4. Position paper – no longer than 4000 words and a maximum of 100 references. Abstract within 250 words. This category includes position papers developed by CDHA.
5. Case report – between 1000 and 1200 words, and a maximum of 25 references, and 3 authors. Abstract of 100 words.

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<td>Cover letter accompanies manuscript with your declaration of originality, any conflict of interests, and your contact information.</td>
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<td>10</td>
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5. Acknowledgements: Acknowledge any assistance or support given by individuals, organizations, institutions, or companies. Those identified here must have provided informed consent for you to cite their names as this may imply endorsement of the data and/or the conclusions.

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- How to Write a Scholarly Book Review for Publication in a Peer-Reviewed Journal
  www.ncbi.nlm.nih.gov/pmc/articles/PMC2870990/

12. Referencing Style and Citations

The reference style is based on Vancouver style, the preferred referencing style and Citations available from: www.nlm.nih.gov/bsd/uniform_requirements.html

<table>
<thead>
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<tr>
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<tr>
<td><strong>Books and other monographs</strong></td>
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Editors as authors

No author

Chapter in book

Conference paper

Scientific or technical report

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

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