Dental Hygiene Focus: Interprofessional Collaboration/ Medical–Dental Integration

From the Womb: Dental Hygienists' Role in Promoting Lifelong Health Through Integrated Oral Care

by Kyla Oshanek, DHP-C, BDSc(DH), MClSc • kylaoshanek@gmail.com
and Lisa Watson, RDH, BA, MClSc • lwatso58@uwo.ca

In health care, words matter. Shifting from "dental–medical" to "oral–medical" integration acknowledges the role of oral health professionals beyond dentists in preventive care and patient well-being. It also emphasizes the mouth's place in overall health and reinforces the need for a collaborative health care model.[1]

Oral–medical integration (OMI) bridges oral and systemic health by integrating oral care into primary medical care, emphasizing their interconnection and fostering team collaboration.[1] OMI enhances patient safety and outcomes, and reduces costs through comprehensive care.[2,3] Dental hygienists, with their expertise in prevention, are uniquely positioned to champion this model, particularly in perinatal care, where they can play a crucial role in improving maternal and child health outcomes.

Despite research highlighting the oral–systemic connection, barriers to OMI, such as lack of political will and interprofessional education, persist (Table 1).[4] Facilitators such as supportive policies and co-location could address these challenges (Table 1).[4] Establishing these facilitators would support partnerships in pediatric settings where the Government of Canada already monitors relevant performance indicators.[5] Integrating dental hygienists into pre- and perinatal care teams addresses unmet oral health care needs, while improving maternal and child well-being.[2,3] By providing essential expertise in oral health assessment, prevention, and education, dental hygienists can mitigate adverse pregnancy outcomes linked to oral health conditions.[2,3] This integration fosters a more equitable and cost-effective health care experience for expectant mothers[1,2]

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Table 1. Barriers to and Facilitators of Oral–Medical Integration[4]

Barriers	Facilitators
Lack of Political Leadership and Health Care Policies	**Supportive Policies and Resource Allocation**
Poor understanding of oral health's importance, low prioritization on political agendas, and absence of appropriate policies hinder integration.	Financial support from governments, stakeholders, and non-profit organizations, along with strategic partnerships, facilitate integration.
Implementation Challenges	**Interprofessional Education**
High costs of integrated services, human resources issues, and deficient administrative infrastructure present significant obstacles.	Training non-dental professionals in oral health, promoting interprofessional education, and encouraging further training facilitate integration.
Discipline-Oriented Education and Lack of Competencies	**Collaborative Practices**
Focus on discipline-specific training and lack of interprofessional education lead to insufficient competencies in integrated care.	Understanding and assuming roles in providing oral health care, effective case management, and task-sharing strategies enhance collaborative practices.
Lack of Continuity of Care and Services	**Local Strategic Leaders**
Poor referral systems, deficient interfaces, and unstructured care coordination mechanisms disrupt continuity of care.	Local leaders play a strategic role in building teamwork and community capacity for integrating oral health into primary care.
Perception of Oral Health Care Needs	**Geographic Proximity**
Patients' acceptance or refusal of integrative care often depends on perceived needs rather than health care providers' assessments.	Co-location of oral health and medical practices promotes interprofessional collaboration and efficient care delivery.

and may help establish national prenatal oral health policies.[2] Several pathways have bridged maternal and infant oral health with prenatal care in Canada[2] and the United States, demonstrating that OMI in this setting is gaining traction.[6]

For example, the Rocky Mountain Network of Oral Health (RoMoNOH) project focuses on primary prevention of dental caries in infants and pregnant women across Arizona, Colorado, Montana, and Wyoming. This project embeds dental hygienists and other oral health care providers in community health centres, provides training and resources, and integrates oral health into primary care. The initiative has significantly improved preventive oral health services for infants and children, demonstrating the effectiveness of OMI in perinatal care.[6]

▲ *Rocky Mountain Network of Oral Health*

Focus: Interprofessional Collaboration/Medical–Dental Integration

Effective OMI hinges on interprofessional collaboration, requiring clearly defined roles and mutual understanding among team members.[1] Misconceptions about the roles and capabilities of dental hygienists, particularly in preventive care, can hinder collaboration.[1] Open communication and shared decision making are crucial for optimizing resources, improving patient outcomes, and supporting expectant families.[2]

A perinatal care model, prioritizing interprofessional collaboration and communication, can be a model for wider OMI adoption. It aligns with opportunities in cancer care,[7] long-term care,[8] diabetes management,[9] and pharmacy.[10] By fostering interprofessional competencies and emphasizing preventive care, this model can enhance patient safety, improve care quality,[3] and elevate oral health literacy. By focusing on the unique expertise of dental hygienists, OMI champions oral health as a cornerstone of overall well-being for mothers, children, and the broader population. This team-based approach, aligning with Value-Based Care, prioritizes quality and patient outcomes, promoting a healthier future for both patients and the profession.[2,3]

To advance this model and ensure equitable oral health care for all, dental hygienists have a crucial role to play in advocating for policy changes that integrate oral health into primary care, aligning with the *WHO Draft Global Oral Health Action Plan (2023–2030)*.[11]

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From the Womb…cont'd

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Dental Hygienists' Role within the Interprofessional Team

by Whitney Foster, RDH • whitneyfosterrdh@outlook.com

As registered dental hygienists, we are essential primary care providers who play a crucial role within the interprofessional team. It is well established that poor oral health is associated with many different health conditions such as diabetes, chronic obstructive pulmonary disease (COPD), and heart disease. As the prevalence of these chronic conditions increases, it is imperative that we understand the importance of working with an interprofessional collaborative team to promote oral health and to help implement treatment to manage these conditions.[1]

According to the World Health Organization (WHO), interprofessional collaborative practice (ICP) occurs when multiple health care workers from different professional backgrounds provide comprehensive services by working with patients, their families, caregivers, and communities to deliver the highest quality of care.[2] In May 2011, the Interprofessional Education Collaborative (IPEC), a coalition of health professions education associations, released a set of competencies for interprofessional collaborative practice. The focus was to support curriculum development in health professions schools so that graduates would be able to deliver quality patient-centred care, while recognizing that team-based care is necessary in our evolving health care system. The IPEC expert panel identified four core competencies for interprofessional collaborative practice,[3] which are as follows:

1. **Values/Ethics for Interprofessional Practice:** Work with individuals of other professions to maintain mutual respect and values.
2. **Roles/Responsibilities:** Use the knowledge of one's own role and the roles of other professions to assess and address the health needs of the patients and to promote and advocate for the health populations that are served.
3. **Interprofessional Communication:** Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to care.
4. **Teams and Teamwork:** Apply relationship-building values and principles of team dynamics to perform effectively in different team roles. Plan, deliver, and evaluate patient-centred care that is safe, timely, efficient, and effective.

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Dental Hygienists' Role within…cont'd

Dental hygienists should recognize that the four core competencies for interprofessional collaborative practice share many characteristics with our own professional competencies released by our regulatory bodies and associations. For example, in 1994 the College of Dental Hygienists of Ontario (CDHO) *Dental Hygiene Standards of Practice* was adapted from the *Clinical Practice Standards for Dental Hygienists in Canada* to conform to provincial regulations. Dental hygienists in Ontario must apply the *CDHO Dental Hygiene Standards of Practice, CDHO Code of Ethics*, and CDHO regulations to their dental hygiene practice as well as work effectively and collaboratively within interprofessional health care teams.[4]

It is important to remind ourselves that for decades, oral health professionals have played a crucial role within interprofessional collaborative teams. One example would be cleft lip and cleft palate where teams of oral health, health, and care providers work together to coordinate care for these patients with complex needs that only could be addressed interprofessionally. Likewise, more recently, registered dental hygienists help manage temporomandibular joint disorder (TMD), speech, and sleep medicine through assessments, screening, and myofunctional therapy.

As registered dental hygienists we play a significant role in screening patients for certain primary care metrics. For example, dental hygienists can easily monitor hypertension. One advantage of having routine patient visits is that we have the opportunity to monitor a patient's blood pressure over an extended period. Being able to observe and identify normal, low, and high blood pressures allows us to take appropriate measures and communicate with our patient and other members of the patient's team. Additionally, we provide oral health care to a very large population of patients with mental health conditions, chronic pain, diabetes, and COPD. These patients take medications that often cause xerostomia, which increases gingival inflammation and caries risk. These patients could be better managed when we collaborate as an interprofessional team viewing the disease process from a dental, medical, pharmaceutical, and mental health management standpoint.

Registered dental hygienists should always strive to inform and educate other health care professionals about the importance of oral health and its correlation to overall health. Our role within the interprofessional team is crucial, as more medical conditions are linked to oral health.

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Advancing Health Care Through Canadian Dental Hygiene: Interprofessional Education and Collaborative Care

by Leslie Kenwell, RDH, MEd • leslie.kenwell@dal.ca

With two decades of experience as a dental hygiene educator, I have witnessed significant transformations within our profession, particularly in the realm of interprofessional education (IPE) and collaborative care. Oral health educators have long understood that improved patient outcomes stem from leveraging the expertise of all health care professionals and that this mindset needs to be introduced at the outset of health profession programs. In 2011, while teaching at a dental hygiene school, my colleagues and I embarked on a challenging journey of creating courses to help students value these ideas. We grappled with fundamental questions: How do we effectively communicate with other professions? How can we align or bridge gaps in our scopes of practice? What insights can we gain from one another?

Developing and delivering curriculum that included other professional programs was initially uncomfortable, yet essential to overcome the siloed approach of the past. As Dr. Paul Allison, a prominent advocate for integrating oral care into Canada's medical system aptly stated, "the body's systems do not segregate the mouth from the rest of the body."[1] This perspective drove our efforts forward.

It is known (in dental hygiene education as least) that dental hygienists can identify signs of conditions such as diabetes, cardiovascular diseases, and respiratory issues during routine dental hygiene appointments.[2] An early initiative, the collaboration between nursing and dental hygiene students at George Brown College, Ontario, underscored the overlapping roles in oral health and blood pressure monitoring.[3] The challenges faced and lessons learned—both anticipated and unexpected—highlighted the invaluable gains each profession realized. For instance, it is difficult to measure the substantial appreciation that the professions gained for one another. Such initiatives have since become foundational resources for educators aiming to advance IPE and collaborative care.

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Advancing Health Care Through Canadian Dental Hygiene…cont'd

Today, many educational institutions have embedded IPE into their curricula, providing students with opportunities to learn alongside their peers from diverse health care disciplines, such as nursing, medicine, and pharmacy. These activities foster essential competencies including interprofessional communication, patient/community centred care, team dynamics, collaborative leadership, and more.[4] At Dalhousie University, Nova Scotia, the annual First-Year Foundational IPE Event involving faculties of medicine, health, and dentistry[5] has become a hallmark, and has evolved to include focussed conversations on health equity. This exposure enhances students' abilities to work effectively within multidisciplinary teams, preparing them for collaborative care models in their future careers.

While progress in integrating IPE and collaborative care within Canadian dental hygiene is promising, challenges persist. These include differences in professional culture, varying scopes of practice, and communication barriers among health care disciplines. Overcoming these challenges demands ongoing commitment to professional development and a unified vision for patient-centred care. Continued growth hinges on expanding IPE initiatives, establishing robust communication channels, and developing collaborative care models[4] that incorporate dental hygienists into multidisciplinary teams.

Recently we have seen a major development in the Canadian health care system with the rollout of the Canadian Dental Care Plan.[6] This program serves as further reinforcement for us to embrace the fact that "oral care is health care."[1] While much work still needs to happen, there is no denying that the role of dental hygienists in interprofessional collaboration is crucial for the advancement of patient care outcomes. As Minister Holland emphasized at the recent Canadian Oral Health Summit, there is a collective imperative to "put the mouth back in the body."[7]

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Interprofessional Collaboration in Dental Hygiene

by Margaret Frey, RDH, BAHSc • margaretfrey03@gmail.com

Interprofessional collaboration (IPC) has been growing in many sectors for some time now. But what does this mean for health care professionals? Petri defines health care collaboration as "an interpersonal process characterized by health care professionals from multiple disciplines with shared objectives, decision-making together to solve patient care problems."[1]

INTERPROFESSIONAL COLLABORATION AND THE DENTAL HYGIENIST

How does this description of collaboration apply to dental hygiene practice? As oral health professionals, dental hygienists are responsible for collaborating on their client's care with others to achieve the best oral health outcomes. This is played out in clinical practice with the collaboration between the clinicians in the workplace as they each treat clients within their scope of practice. Dental hygienists also enjoy collaborating with other oral health professions, for example, as may be seen in the process of referring a client to a periodontist and the (often) subsequent shared care of the client.

INTERPROFESSIONAL COLLABORATION VS COLLABORATIVE PRACTICE

Current thinking around IPC in health care has moved towards an emphasis on collaborative practice. In contrast to IPC, collaborative practice is a more inclusive model that centres the client in discussions as an active participant in goal setting and decision making.[2] Longitudinal studies have indicated that a collaborative practice approach produces better health outcomes and addresses some social determinants of health (SDoH), while providing empowerment and advocacy for clients.[2] Collaborative practice is embedded in the Federation of Dental Hygiene Regulators of Canada's *Entry-to-Practice Canadian Competencies for Dental Hygienists* released in 2021.[3] Considering dental hygienists are regularly engaged with their clients, it is incumbent upon them in Canada to implement collaborative practice with clients, other oral health professionals, and community networks.

COLLABORATIVE PRACTICE IN ACTION

An exciting example of collaborative practice is a community health centre model in the Northumberland district of Ontario.[4] The Community Health Centres of Northumberland (CHCN) is a non-profit interprofessional primary health care team comprising family physicians, nurse practitioners, registered practical nurses, dietitians, social workers, pharmacists, occupational therapists, behavioural support nurses, geriatricians, dentists, dental hygienists, and dental assistants. This comprehensive team offers services from oral health care to geriatric assessment and intervention and includes many programs to meet the population's needs. Organizing an interprofessional team under one umbrella affords the various health professionals the ease of discourse and collaboration as they seek to partner with their clients to meet their health care needs.

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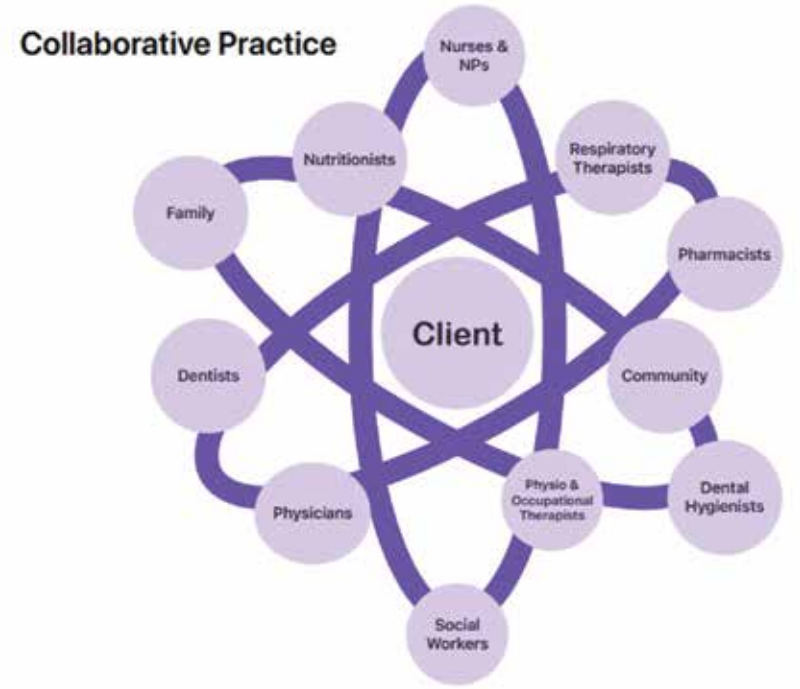
Interprofessional Collaboration…cont'd

LIMITATIONS OF IPC

A major limiting factor to IPC is the power imbalances experienced by many health care professionals in the workplace, to which oral health care teams are not immune. While there continues to be growth in the number of dental hygienists who choose to work in independent practice, the majority remain in traditional dental practices. This employer/employee relationship complicates the interprofessional collaborative dynamic. According to Okpala, the factors that contribute to power imbalances include inadequate allocation of time, deferral to the medical/dental hierarchy (i.e., respect given for designation rather than expertise and experience), lack of confidence in others' competencies, and poor communication.[5] These issues can be mitigated by moving towards an environment that embraces shared decision making, effective communication, education, and mentoring in collaborative practice.



In addition, the collaboration that allied health professionals seek with the medical field is hampered mainly by systemic factors. Our health care system still situates the primary care provider (PCP), family physicians, and nurse practitioners as the "gatekeeper" and the only means of referral to a specialist. For instance, a physiotherapist who assesses that their client would benefit from a consultation with an orthopedic surgeon must first relay their findings to the client's PCP to have the referral initiated. This step wastes resources, not only in clinician hours and wait time for the client, but also in health care spending. Furthermore, who is better positioned to describe their findings and concerns than the practitioner who specializes in this area and has intimate knowledge of the client and this specific concern?

FUTURE OF COLLABORATIVE PRACTICE

While we see some shining examples of collaborative practice, there are still great strides to be made for all health professionals to embody the principles of IPC. One positive outcome of IPC is the dismantling of the silos in health care. The most effective way of achieving this is via the educational system. Queen's University's Master of Health Professions Education program has IPC as a core principle in its programming.[6] IPC is not only taught in the curriculum, but it is also realized through the recruitment of candidates ranging from physiotherapists, anesthesiologists, and midwives to trauma surgeons and dental hygienists. Through learning and conversations, these health care professionals build relationships and form partnerships that ultimately benefit their patients and clients.

These educators then take their understanding of IPC and implement changes within their various disciplines and institutions. What better way to realize IPC than by the movement of health professionals between disciplines? Many subjects such as ethics, research, Indigenous cultural competency, and SDoH can be taught by educators outside of that silo of health care. Through such visionary programming at the educational level, the silos in health care can be dismantled…or at least diminished.

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