

APPENDIX A. Confidence frequency data related to subcompetencies for fourth-year students

The following tables provide the overall frequency data associated with each domain and its subcompetencies with regard to the fourth-year respondents' confidence ratings. The tables include both the percentages and the number of respondents for each subcompetency.

REFERENCE:

Sunell S, Laronde DM, Kanji Z. Graduating dental hygiene students' attainment of the CDHA baccalaureate competencies: Students' self-ratings. *Can J Dent Hyg.* 2019;53(2):100–109.

Table A-1. Confidence ratings of fourth-year students in the **Integration of Knowledge** competencies (n = 17)

Integration of knowledge competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Integrate knowledge of general, behavioural, social, and oral health sciences to support the dental hygiene process of care.	0 (0)	12 (2)	6 (1)	65 (11)	18 (3)
b. Incorporate knowledge of evaluation to assess outcomes of oral health interventions, activities, initiatives, and programs.	0 (0)	12 (2)	0 (0)	71 (12)	18 (3)
c. Draw on knowledge of political action to support oral health programs and policies that impact oral health and well-being.	12 (2)	24 (4)	35 (6)	24 (4)	6 (1)
d. Integrate knowledge of qualitative and quantitative research into the development and evaluation of oral health services and policies that impact oral health and well-being.	0 (0)	24 (4)	0 (0)	41 (7)	35 (6)
e. Apply dental hygiene and interprofessional theories, theoretical frameworks, research, and evidence to support dental hygiene judgments and services.	0 (0)	6 (1)	0 (0)	65 (11)	29 (5)

Table A-2. Confidence ratings of fourth-year students in the **Professionalism** competencies (n = 17)

Professionalism competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Exhibit the capacity to be governable through licensure and fulfillment of regulatory legislation.	0 (0)	6 (1)	12 (2)	65 (11)	18 (3)
b. Display a disposition towards critical thinking (e.g., to be inquisitive, truth seeking, open minded, systematic, and analytical).	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)
c. Be aware of own limitations and the implications of these limitations on analyses and interpretations.	0 (0)	6 (1)	12 (2)	65 (11)	18 (3)
d. Develop approaches for dealing with the ambiguities, incomplete information, and the uncertainty of an ever-changing environment.	0 (0)	18 (3)	12 (2)	53 (9)	18 (3)
e. Exercise initiative, personal responsibility, and accountability.	0 (0)	0 (0)	0 (0)	47 (8)	53 (9)
f. Manage own learning in changing circumstances.	0 (0)	6 (1)	6 (1)	35 (6)	53 (9)
g. Seek credible sources of feedback to assess the congruence, incongruence, and outcomes of services.	0 (0)	0 (0)	0 (0)	47 (8)	53 (9)
h. Self-correct professional performance in relation to standards of practice and legislation.	0 (0)	12 (2)	0 (0)	47 (8)	41 (7)
i. Mentor others in their professional development abilities.	0 (0)	18 (3)	12 (2)	29 (5)	41 (7)
j. Promote ethical decision making when providing care for clients, including those with limitations and impairments.	0 (0)	0 (0)	6 (1)	47 (8)	47 (8)
k. Serve society and the profession through community activities and affiliations with professional organizations.	0 (0)	47 (8)	0 (0)	65 (11)	29 (5)

Table A-3. Confidence ratings of fourth-year students in the **Communication** competencies (n = 17)

Communication competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Assess challenges, barriers, and opportunities for effective communication with diverse individuals, groups, communities, and populations.	0 (0)	0 (0)	0 (0)	71 (12)	29 (5)
b. Use professional resources to support the development of oral health messages and learning sessions.	0 (0)	0 (0)	6 (1)	59 (10)	35 (6)
c. Work with established client care information systems to manage information within health settings and communities.	0 (0)	12 (2)	0 (0)	59 (10)	29 (5)
d. Communicate with linguistic and cultural proficiency.	0 (0)	18 (3)	12 (2)	53 (9)	18 (3)
e. Incorporate strategies for interacting with people of diverse backgrounds and health literacy skills into services provided.	0 (0)	29 (5)	6 (1)	35 (6)	29 (5)
f. Use information technologies for health care to support client safety and better health care outcomes.	0 (0)	18 (3)	12 (2)	53 (9)	18 (3)
g. Apply skills related to information and communication technologies to improve oral health services including business operations.	0 (0)	41 (7)	24 (4)	29 (5)	6 (1)
h. Evaluate the effectiveness of communication strategies and outcomes.	0 (0)	6 (1)	6 (1)	24 (4)	65 (11)
i. Identify clients' support networks and include its members in communications while respecting current privacy legislation.	0 (0)	18 (3)	6 (1)	59 (10)	18 (3)

Table A-4. Confidence ratings of fourth-year students in the **Collaboration** competencies (n = 17)

Collaboration competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Support the development of shared language to promote communication about roles, knowledge, abilities, and oral health and well-being.	0 (0)	6 (1)	6 (1)	65 (11)	24 (4)
b. Establish and maintain professional relationships with students, faculty, staff, health professionals, professional associations, and regulatory authorities to support the oral health and well-being of individuals, groups, communities, and populations.	0 (0)	0 (0)	0 (0)	59 (10)	41 (7)
c. Develop and sustain professional relationships based on respect, empathy, and trust with individuals, groups, communities, and populations.	0 (0)	0 (0)	0 (0)	47 (8)	53 (9)
d. Use coaching, mentoring, and networking strategies to promote problem solving and decision making.	0 (0)	18 (3)	6 (1)	29 (5)	47 (8)
e. Incorporate relationship skills including conflict resolution and negotiation abilities into dealings with others.	0 (0)	24 (4)	0 (0)	59 (10)	18 (3)
f. Engage in joint decision making to support continuity of care for individuals, groups, communities, and populations.	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)

Table A-5. Confidence ratings of fourth-year students in the **Coordination** competencies (n = 17)

Coordination competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Work to align dental hygiene services with the organizational and community culture.	0 (0)	18 (3)	6 (1)	24 (4)	53 (9)
b. Develop, implement, and monitor quality assurance standards and protocols to ensure a safe and effective working environment.	6 (1)	35 (6)	18 (3)	18 (3)	24 (4)
c. Ensure that practice is consistent with legal, professional, and ethical responsibilities.	0 (0)	0 (0)	6 (1)	71 (12)	24 (4)
d. Ensure the practice environment supports the efficient and appropriate delivery of dental hygiene services.	0 (0)	0 (0)	0 (0)	59 (10)	41 (7)
e. Apply culturally relevant approaches to interactions with people from diverse cultural, socioeconomic, and educational backgrounds, and persons of all ages, genders, health status, sexual orientations, and abilities.	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)
f. Support the integration of a family-centred/community-centred approach in the provision of oral health services.	0 (0)	0 (0)	6 (1)	71 (12)	24 (4)
g. Assume responsibility for being clients' first point of access to oral health services.	0 (0)	18 (3)	0 (0)	41 (7)	41 (7)
h. Take responsibility for the overall coordination of client care including appropriate delegation to qualified individuals, use of community resources, and management of referrals.	0 (0)	12 (2)	6 (1)	53 (9)	29 (5)
i. Integrate the basic principles of business management including business ethics, economics, marketing, and entrepreneurship into practice.	24 (4)	29 (5)	18 (3)	24 (4)	6 (1)

Table A-6. Confidence ratings of fourth-year students in the **Research Use** competencies (n = 17)

Research use competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Develop focused, realistic, and meaningful questions about practice and/or the profession.	0 (0)	6 (1)	6 (1)	41 (7)	47 (8)
b. Analyze the strengths and limitations of different research approaches and their contributions to the knowledge base of dental hygiene.	6 (1)	6 (1)	0 (0)	59 (10)	29 (5)
c. Navigate proficiently through diverse databases and resources related to oral and general health.	0 (0)	0 (0)	6 (1)	65 (11)	29 (5)
d. Examine the appropriateness of statistical tests based on the theories underpinning the tests.	6 (1)	35 (6)	6 (1)	47 (8)	6 (1)
e. Critique study methodology and conclusions for their relevance and application to oral care.	6 (1)	6 (1)	6 (1)	59 (10)	24 (4)
f. Weigh various perspectives, biases, and assumptions related to complex issues.	0 (0)	24 (4)	6 (1)	47 (8)	24 (4)
g. Differentiate between more and less valid, reliable, and/or credible types of information.	0 (0)	6 (1)	0 (0)	47 (8)	47 (8)
h. Apply the principles of research ethics to the collection of data in practice settings.	0 (0)	12 (2)	0 (0)	82 (14)	6 (1)
i. Apply theoretical frameworks and processes to the analysis of information to support practice decisions.	0 (0)	24 (4)	6 (1)	65 (11)	6 (1)
j. Use information from current, credible research and resources to support evidence-based judgements about oral health services.	0 (0)	6 (1)	6 (1)	47 (8)	41 (7)
k. Formulate strategies to protect and further the oral health status of the public.	0 (0)	12 (2)	18 (3)	53 (9)	18 (3)

Table A-7. Confidence ratings of fourth-year students in the **Leadership** competencies (n = 17)

Leadership competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Promote the value of client safety, health and well-being, and reduction of inequities in diverse practice environments.	0 (0)	6 (1)	0 (0)	41 (7)	53 (9)
b. Collaborate with others to advance oral health within overall health.	0 (0)	0 (0)	0 (0)	29 (5)	71 (12)
c. Compare and contrast ways of initiating and managing change for self, others, communities, and/or organizations.	0 (0)	0 (0)	0 (0)	71 (12)	29 (5)
d. Advocate for resources to promote oral health and well-being.	0 (0)	18 (3)	6 (1)	47 (8)	29 (5)
e. Contribute to the measuring, reporting, and continuous improvement of practice performance.	0 (0)	24 (4)	12 (2)	47 (8)	18 (3)
f. Participate in implementing the vision of the practice, organization, and/or community.	0 (0)	6 (1)	0 (0)	53 (9)	41 (7)
g. Model the values of social justice within the work of the practice, organization, and community.	0 (0)	6 (1)	12 (2)	53 (9)	29 (5)
h. Participate in the dental hygiene profession with political awareness of health issues ranging from the local to the global levels.	0 (0)	18 (3)	18 (3)	47 (8)	18 (3)
i. Engage in leadership activities to advance the profession.	0 (0)	24 (4)	0 (0)	47 (8)	29 (5)

Table A-8. Confidence ratings of fourth-year students in the **Health Promotion** competencies (n = 17)

Health promotion competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Assess population oral health and its determinants.	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)
b. Apply knowledge of the social determinants of health and associated inequities when participating in the designing of health promotion activities, initiatives, programs, and policies.	0 (0)	0 (0)	6 (1)	53 (9)	41 (7)
c. Collaborate with community, interprofessional, and other partners to achieve sustainable health promotion goals for individuals, groups, communities, and populations.	0 (0)	0 (0)	0 (0)	59 (10)	41 (7)
d. Support people within communities to build their capacity for oral health and general well-being.	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)
e. Use evidence-based strategies to work effectively with at-risk groups to support access to oral health care.	0 (0)	6 (1)	0 (0)	29 (5)	65 (11)
f. Support the adaptation of oral health policies, delivery of health promotion services, and evaluation to respond to diversity in population characteristics.	0 (0)	24 (4)	0 (0)	41 (7)	35 (6)
g. Use cost-effectiveness, cost-benefit, and cost-utility data to support service prioritization and decision making.	0 (0)	12 (2)	18 (3)	53 (9)	18 (3)
h. Incorporate system thinking into health promotion practice.	0 (0)	12 (2)	47 (8)	29 (5)	12 (2)
i. Participate in the development of mechanisms to monitor, evaluate, and modify activities, initiatives, and programs for their effectiveness and quality.	0 (0)	18 (3)	0 (0)	71 (12)	12 (2)
j. Compare and contrast the current and potential role of oral health professionals in the management of incidents, outbreaks, and emergencies.	0 (0)	35 (6)	0 (0)	59 (10)	6 (1)

Table A-9. Confidence ratings of fourth-year students in the **Disease Prevention** competencies (n = 17)

Disease prevention competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Use a common risk factor approach in assessing and supporting the oral health and well-being of individuals, groups, communities, and populations.	0 (0)	0 (0)	0 (0)	82 (14)	18 (3)
b. Promote a culture of safety in practice settings to support the positive management of breaches related to practice standards.	0 (0)	0 (0)	0 (0)	71 (12)	29 (5)
c. Participate in the development of evidence-informed protocols and standards of practice for client safety and better health outcomes in diverse practice settings.	0 (0)	18 (3)	6 (1)	59 (10)	6 (1)
d. Encourage client self-efficacy to maintain and support healthy lifestyles.	0 (0)	0 (0)	0 (0)	53 (9)	47 (8)
e. Plan and implement preventive services for individuals, groups, communities, and populations at risk for oral disease.	0 (0)	0 (0)	0 (0)	59 (10)	41 (7)
f. Engage clients, health professionals, decision makers, and interest groups in discussions about oral disease, health, and well-being.	0 (0)	6 (1)	6 (1)	65 (11)	24 (4)
g. Compare the outcomes of preventive services provided to accepted scientific benchmarks.	0 (0)	12 (2)	12 (2)	65 (11)	12 (2)

Table A-10. Confidence ratings of fourth-year students in the **Oral Health Education** competencies (n = 17)

Oral health education competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Assess the health literacy of individuals, groups, communities, and populations served.	0 (0)	0 (0)	0 (0)	29 (5)	71 (12)
b. Use multiple strategies to communicate appropriate oral health messages effectively to diverse audiences.	0 (0)	0 (0)	0 (0)	53 (9)	47 (8)
c. Create an environment in which effective learning can take place.	0 (0)	0 (0)	0 (0)	59 (10)	41 (7)
d. Participate in knowledge translation of oral health information to other professionals and policy makers.	0 (0)	12 (2)	6 (1)	65 (11)	18 (3)
e. Present demographic, statistical, programmatic, and/or scientific information for use by lay audiences.	0 (0)	41 (7)	6 (1)	24 (4)	29 (5)
f. Coach individuals and groups in learning oral health knowledge and skills.	0 (0)	6 (1)	0 (0)	41 (7)	53 (9)
g. Support clients to develop self-management skills.	0 (0)	0 (0)	0 (0)	47 (8)	53 (9)
h. Collaborate with care workers and other professionals on issues and protocols related to oral care.	0 (0)	0 (0)	6 (1)	53 (9)	41 (7)
i. Promote the integration of oral health issues within chronic disease management programs and general health education activities, initiatives, and programs.	0 (0)	0 (0)	12 (2)	71 (12)	18 (3)
j. Evaluate the effectiveness of learning activities and revise the learning strategy as needed.	0 (0)	6 (1)	0 (0)	59 (10)	35 (6)

Table A-11. Confidence ratings of fourth-year students in the **Advocacy** competencies (n = 17)

Advocacy competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Examine how political arenas such as government, workplace, organizations, and communities shape the delivery of oral health care.	12 (2)	29 (5)	12 (2)	35 (6)	12 (2)
b. Identify strategies for advocating the needs of individuals, groups, communities, and populations within diverse organizational structures.	0 (0)	24 (4)	6 (1)	59 (10)	12 (2)
c. Solicit input from individuals, groups, organizations, and communities to address social inequities.	0 (0)	18 (3)	18 (3)	53 (9)	12 (2)
d. Support individuals, groups, and communities in developing advocacy action plans.	0 (0)	18 (3)	12 (2)	65 (11)	6 (1)
e. Work with others to build cultures that support social justice through the acknowledgement of power, privilege, and oppression.	6 (1)	29 (5)	6 (1)	47 (8)	12 (2)
f. Help to create culturally safe and supportive environments within activities, initiatives, programs, organizations, and communities.	0 (0)	12 (2)	6 (1)	59 (10)	24 (4)
g. Use the political process to advocate for oral health.	12 (2)	41 (7)	24 (4)	12 (2)	12 (2)
h. Act as a voice for change in the face of behaviour that might bring harm to individuals, groups, communities, and populations.	0 (0)	41 (7)	12 (2)	24 (4)	24 (4)
i. Follow-up on advocacy initiatives to determine the outcomes of the strategy.	0 (0)	29 (5)	0 (0)	59 (10)	12 (2)

Table A-12. Confidence ratings of fourth-year students in the **Policy Use** competencies (n = 17)

Policy use competencies	Confidence rating				
	% (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Recognize the potential differential effects of oral health interventions on population subgroups.	0 (0)	18 (3)	6 (1)	59 (10)	18 (3)
b. Assist in the development of recommendations for policies to support the oral health and well-being of individuals, groups, communities, and populations.	0 (0)	29 (5)	0 (0)	65 (11)	6 (1)
c. Assist in the development of plans to implement policies taking into account relevant information including other policies, regulations, and legislation.	6 (1)	47 (8)	0 (0)	35 (6)	12 (2)
d. Collaborate with others to advance health equity through the policy process.	6 (1)	29 (5)	0 (0)	47 (8)	18 (3)
e. Collect data about policies that impact oral health and well-being to support their monitoring and evaluation.	12 (2)	29 (5)	0 (0)	59 (10)	0 (0)

Table A-13. Confidence ratings of fourth-year students in the **Clinical Therapy** competencies (n = 17)

Clinical therapy competencies	Confidence rating % (n)				
	Not confident	Somewhat confident	Not sure	Mostly confident	Confident
a. Apply standards, best practices, and protocols to support client and practitioner safety, and client health outcomes.	0 (0)	0 (0)	0 (0)	29 (5)	71 (12)
b. Perform needs assessments for individuals and groups grounded in evidence-based approaches.	0 (0)	0 (0)	0 (0)	18 (3)	82 (14)
c. Differentiate between significant and non-significant findings when summarizing client assessment data for individuals and groups including those with medically complex needs.	0 (0)	0 (0)	0 (0)	29 (5)	71 (12)
d. Develop diagnostic statements based on a comprehensive knowledge of pathophysiology and the social determinants of health.	0 (0)	0 (0)	0 (0)	53 (9)	47 (8)
e. Plan strategies for gaining and maintaining informed consent for clients including those with learning and cognitive limitations and impairments.	6 (1)	0 (0)	6 (1)	47 (8)	41 (7)
f. Identify errors in care and make recommendations to support client safety.	0 (0)	0 (0)	0 (0)	65 (11)	35 (6)
g. Identify alternative care options for clients for whom the initiation or continuation of treatment is contraindicated.	0 (0)	6 (1)	6 (1)	59 (10)	29 (5)
h. Manage primary oral health care in diverse contexts for individuals and groups with an emphasis on risk assessment, prevention, education, therapeutic services, and referrals.	0 (0)	0 (0)	0 (0)	65 (11)	35 (6)
i. Analyze the provision of oral health services in diverse contexts such as residential care and assisted living environments in the urban and/or rural contexts.	0 (0)	12 (2)	6 (1)	53 (9)	29 (5)