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Leadership in Degree Completion Programs-A Study Comparing Stand-Alone Leadership Courses versus Leadership-Infused Curricula

by

Michelle L. Smith

A thesis

submitted in partial fulfillment

of the requirements for the degree for

Master of Science in Dental Hygiene

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Committee Approval

To the Graduate Faculty:

The members of the committee appointed to examine the thesis of MICHELLE L. SMITH find it satisfactory and recommend that it be accepted.

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September 3, 2014

Michelle Smith, BS
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RE: Your application dated 8/21/2014 regarding study number 4146: Leadership in Degree Completion Programs - A Study Comparing Stand-Alone Leadership Courses versus Leadership-Infused Curricula

Dear Ms. Smith:

I agree that this study qualifies as exempt from review under the following guideline: 1. Research on educational practices in educational settings. This letter is your approval, please, keep this document in a safe place.

Notify the HSC of any adverse events. Serious, unexpected adverse events must be reported in writing within 10 business days.

You are granted permission to conduct your study effective immediately. The study is not subject to renewal.

Please note that any changes to the study as approved must be promptly reported and approved. Some changes may be approved by expedited review; others require full board review. Contact Tom Bailey (208-282-2179; fax 208-282-4723; email: humsubj@isu.edu) if you have any questions or require further information.

Sincerely,

Ralph Baergen, PhD, MPH, CIP
Human Subjects Chair

Acknowledgements

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Abstract

Purpose: The purpose of this study was to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses versus leadership-infused curricula.

Methods: This mixed method study used both qualitative and quantitative methods. Semi-structured interviews of 16 program directors and faculty members that teach either a stand-alone leadership course or leadership-infused courses were conducted and a comparison of 16 course syllabi determined the differences in the extent of leadership content and experiences between these programs.

Results: Common themes that became evident included the inadequate measurement of competency of leadership skills, the barriers to incorporating a stand-alone leadership course within curriculum and enhancements for the future of degree completion programs.

Conclusion: The findings of this study provide a synopsis of leadership content in degree completion programs, suggesting the need for leadership competencies and more resources offered to educators with regard to leadership.

Section I: Thesis Proposal

Chapter I: Introduction

Equipping future dental hygiene professionals with leadership skills is essential for advancing the dental hygiene profession (American Dental Hygienists' Association [ADHA], 2005). Leadership skills are necessary in many facets of the dental hygiene profession including research, education, licensure and regulation, public health, and government (ADHA, 2005). However, leadership in dental hygiene education appears to be lacking (ADHA, 2005; Portillo, Rogo, Calley, & Cellucci, 2013). Leadership is not listed in any category or subcategory of the content areas (e.g., general education, biomedical sciences, dental sciences, and dental hygiene sciences) mandated by the Commission on Dental Accreditation (CODA, 2013) which regulates the standards for entry into the dental hygiene profession.

The American Dental Education Association (ADEA, 2012) developed competencies or domains for entry into the dental hygiene profession, which include core competencies (e.g., foundational knowledge such as ethics, values, and clinical science), health promotion and disease prevention, community involvement, patient care, and professional growth and development. Leadership skills are not listed within these core competencies. If leadership is not required as a competency within areas of dental hygiene sciences, community involvement, or professional growth, dental hygiene programs are not likely to incorporate leadership into the curricula.

With the majority of dental hygiene entry-level programs offered at the associate degree level (ADHA, 2014), leadership skills are not likely to be incorporated into the

overcrowded, rigorous curriculum. Associate-level programs focus on traditional clinical dental hygiene practice; however, the goal of degree completion and baccalaureate degree dental hygiene programs is to prepare dental hygienists for other career roles in addition to traditional clinical dental hygiene practice (Rowe, Massoumi, Hyde, & Weintraub, 2008). According to a survey of degree completion programs, only 31 percent of the responding programs reported a stand-alone leadership course in the core curriculum. Portillo et al. (2013) affirmed that little is known about the subject of leadership in degree completion programs. Another study discovered the majority of students viewed leadership as part of their profession and would willingly participate in leadership training programs within their teaching institutions (Victoroff, Schneider, & Perry, 2008).

Of the reported 335 entry-level dental hygiene programs, 53 programs are considered degree completion programs (ADHA, 2014). Degree completion programs are intended for licensed dental hygienists who have completed either a certificate or associate-level entry program (ADHA, 2014). Forty-two of the 53 degree completion programs are considered Bachelor of Science in Dental Hygiene (BSDH), and 11 programs are related degrees such as the Bachelor of Science in Health Science or Bachelor of Science in Allied Health (ADHA, 2014). Leadership should be incorporated into the baccalaureate degree dental hygiene programs to encourage dental hygienists to become scholars, educators, and leaders of the profession (Portillo et al., 2013). In addition, leadership skills will prepare dental hygiene students for higher education (Portillo et al., 2013).

Statement of the Problem

Although the dental hygiene profession is diverse with different roles for employment including clinician, educator, researcher, administrator, manager, health advocate, and consultant (ADHA, 2008), leadership skills to fulfill these roles appear to be lacking in dental hygiene education (Portillo et al., 2013). The findings of this study provided information to support the notion of incorporating leadership into the core competencies of degree completion programs.

Purpose of the Study

The purpose of this study was to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses versus leadership-infused curricula.

Significance

The ADHA (2007) proposed the National Dental Hygiene Research Agenda, which is comprised of five areas of study relating to the dental hygiene profession. These areas of study include health promotion and disease prevention, health services research, professional education and development, clinical dental hygiene care, and occupational health and safety. Leadership in degree completion programs may advance the dental hygiene profession specifically in health promotion and disease prevention, health services research, and professional education and development (ADHA, 2005; ADHA, 2007). Stand-alone leadership training courses offer dental hygiene students a new educational opportunity to expand knowledge in the areas of diversity education and practice management (Taichman et al., 2012a). Teaching leadership courses in degree completion programs may provide graduates with the knowledge and confidence

necessary to assume leadership roles in public health, education, research, and government settings and therefore contribute to the skill set dental hygienists need to provide quality, comprehensive care to the public (ADHA, 2005). The results of this study will add to the body of knowledge regarding the need for additional leadership skills within leadership-infused curricula, or if additional topics and skills should be included in stand-alone leadership courses.

Research Question

Is there a difference in the extent of leadership content and experiences between a stand-alone leadership course and leadership-infused curriculum in dental hygiene degree completion programs?

Definitions

Listed below are conceptual and operational definitions specific to this study.

Conceptual Definitions

Entry-level dental hygiene program: Associate and baccalaureate degree dental hygiene education programs that "prepare graduates for clinical dental hygiene practice in private dental practice or public dental clinics" (ADHA, 2013, p.8)

Degree completion dental hygiene program: programs intended for licensed dental hygienists who have completed either a certificate or associate-level entry program (ADHA, 2013).

Stand-alone leadership course: a two to three academic credit course offering content and experiences in leadership.

Leadership experiences: For the purpose of this study, leadership experiences included written assignments, projects, and examinations that involve leadership content.

Leadership experiences were measured according to a self-designed matrix (Appendix A) and the expected outcomes of these experiences.

Leadership-infused curricula: leadership content and experiences taught throughout the curricula.

Operational Definitions

Basic leadership skills: skill sets that equip a leader to model the way, inspire a shared vision, challenge a process, enable others to act, and encourage the heart (Kouzes & Posner, 2007). Communication knowledge, communication skills, consistency of behavior and temperament, emotional intelligence, knowledge of the powerful relationship between trust and understanding, and integrity are the five important foundations of leadership (Ledlow & Coppola, 2011).

Emotional intelligence skills: learned abilities that are comprised of four domains including self-awareness, self-management, social awareness and relationship management skills (Goleman, Boyatzis, & McKee, 2002).

Leadership content: For the purpose of this study, leadership content referred to leadership knowledge and skills. Topics of study included communication, professional development, emotional intelligence, and advocacy. Leadership content was measured according to a self-designed matrix (Appendix A) and also derived from the personal interviews with program directors and faculty members that teach either a stand-alone leadership course or leadership-infused curricula.

Leadership (Leadership, n.d.; Ledlow & Coppola, 2011, p.XI)**:** a position as a leader of a group, organization, etc. or when a person holds the position of leader; the dynamic and active creation and maintenance of an organizational culture and strategic

systems that focus the collective energy of both leading people and managing resources toward meeting the needs of the external environment utilizing the most efficient, effective, and, most importantly, efficacious methods possible by moral means.

Conclusion

Since dental hygiene degree completion programs are not accredited by CODA, the curriculum offered to dental hygiene professionals can focus on the various roles of the profession. However, these roles require leadership skills that must be taught in these programs to adequately prepare graduates with the skill sets necessary to fulfill these roles. The results of this study will add to the body of knowledge regarding the need for additional leadership skills within leadership-infused curricula, or if additional topics and skills should be included in stand-alone leadership courses.

Chapter II: Literature Review

Introduction

Leadership skills taught in dental hygiene programs are vital to advancing the profession of dental hygiene. Equipping dental hygiene graduates with leadership skills and advanced education to best serve the public's needs is essential for the oral health of the nation (Taichman et al., 2012b). Basic leadership skills are defined as skill sets that equip a leader to model the way, inspire a shared vision, challenge a process, enable others to act, and encourage the heart (Kouzes & Posner, 2007). Communication skills, the ability for self-reflection, critical thinking and problem-solving skills, professionalism, ethics, and social responsibilities are among the competencies that should be included within leadership curricula (Taichman et al., 2012b).

This chapter was organized into the following main headings: the definition of leadership for healthcare professionals, the need for planned leadership, dental hygiene degree completion goals, domains, competencies, and leadership curriculum. The search process used for this study included the following search engines: PubMed, EBSCOhost, and Google Scholar. Key terms used in the search for information included degree completion programs, dental hygiene education, leadership, and leadership training.

Leadership Defined

Leadership (n.d) has been defined as a position as leader of a group or organization, or when a person holds the title of leader. "Leadership as a competence can be defined as the process of managing and serving as an advocate to help others achieve particular outcomes" (Taichman et al., 2012b, p. 193). Leadership in healthcare has been defined by Ledlow and Coppola (2011) as:

> The dynamic and active creation and maintenance of an organizational culture and strategic systems that focus the collective energy of both leading people and managing resources toward meeting the needs of the external environment utilizing the most-efficient, effective, and, most importantly, efficacious methods possible by moral means (p. XI).

Leadership skills including communication, self-reflection, critical thinking, problem solving, professionalism, ethics, and social responsibilities are among the skill sets needed for broadening the dental hygienist's role in the health care workforce (Blue, 2013, Taichman et al,. 2012b). Ledlow and Coppola (2011) included other themes regarding leadership skills to include cultural competency, scientific methodology, planning, and decision making. Further, Ledlow and Coppola (2011) stated that "health professionals should consider the discipline of leadership as one of the more important aspects of personal and professional education" (p.3). Decision-making challenges occur for leaders in any organization, with some decisions requiring more critical analysis of situations (Ledlow & Coppola, 2011). Ledlow and Coppola (2011) stressed the necessity for health professionals to be trained in leadership to become well equipped to make the right decision in a given moment. Didactic training and real-world experience are necessary for new health professionals to become proficient with leadership skills (Ledlow and Coppola, 2011).

Blue (2013) described the role of the dental hygienist as leader and advocate in health care delivery that includes workforce needs, practice models, regulation, and the legislative process which is taught during a leadership and professional development course at the University of Minnesota. Dental hygienists recognized in a leadership role

as primary health care providers are essential for interprofessional collaboration with multiple health care disciplines to serve the needs of the public (ADHA, 2014).

The Need for Planned Leadership in Dental Hygiene

The oral health care needs of the public have become increasingly more complex, requiring a change in the depth and breadth of education, scope, and mode of delivery of comprehensive dental hygiene care. Millions of people go without dental care due to living in remote areas with either no dentist/clinic available, or the dentists/clinics do not accept Medicaid (Pew Charitable Trusts, 2011). Approximately 31 million people are considered unserved because no reasonable expectation exists of finding a dentist in or near their community (Pew Charitable Trusts, 2011). Over 4,000 areas in the United States have been federally designated with a shortage of dental professionals (Pew Charitable Trusts, 2011). The United States would need over 6,600 new dentists to remove these shortages and provide access to care to these unserved populations (Pew Charitable Trusts, 2011). Dental hygienists possess the clinical skills to address the needs of the public, but lack leadership skills and advanced training to assist with the access to care issue. Equipping dental hygienists with leadership skills and advanced training could positively impact the access to care dilemma that has plagued the United States. In a report regarding access to oral health care for vulnerable and underserved populations, a vision for oral health care in the United States that provides oral care to all people throughout their lifespan was outlined. This vision of an evidence-based oral health care system would:

> Eliminate barriers that contribute to oral health disparities; prioritize disease prevention and health promotion; provide oral health services in a variety of

> settings; rely on a diverse and expanded array of providers who are competent, compensated, and authorized to provide evidence-based care; include collaborative and multidisciplinary teams working across the health care system; and foster continuous improvement and innovation (IOM, 2011, p. 2).

To become vital members of this evidence-based oral health care system, dental hygienists must be "integrated into the healthcare delivery system as essential primary care providers to expand access to oral health care" (ADHA, 2013, p. 1). Dental hygiene students must be given the mindset and tools to lead (Taichman et al., 2012a). A strategic approach to addressing the above mentioned challenges must include equipping dental hygiene professionals with leadership development skills and additional training in advanced functions to move the dental hygiene profession into the future (Taichman et al., 2012a). However, while dental hygiene programs excel in educating students in the art and science of dental hygiene, these programs do not have a systematic approach to nurture the development of leadership skills or mindset which is vital to advance the profession (Taichman et al., 2012a). Future oral health care leaders should strive to possess leadership characteristics such as unconditional integrity, charisma, and a powerful drive to authenticity; however, dental hygiene students are not recruited solely for their leadership skills or personal magnetism (Taichman et al., 2012b). A need for planned leadership has risen in order to meet the complex and changing needs of the public and to provide dental hygiene graduates with the skill sets necessary to advocate for patients, become leaders in solo or collaborative practice, or at the local or national level of the profession.

Creating new levels of practitioners such as dental hygiene practitioners or advanced dental therapists can address the need for planned leadership by allowing these practitioners direct access in community-based settings. Broader leadership roles in case management or quality and compliance management could expand the role of the dental hygienist (ADHA, 2014). Alaska and Minnesota, along with more than 50 countries, have incorporated dental therapy models (Pew Charitable Trusts, 2014). The dental health aid therapist (DHAT) model in the Alaskan tribal regions began operating in 2005. DHATs are employed by the Indian Health Service and are "trained in a two-year, post-high school program that focuses on limited, routine procedures, education, preventive care, and routine restorative services" (Pew Charitable Trusts, 2014, p. 6). In 2009, Minnesota became the first state to incorporate the dental therapist and advanced dental therapist role, requiring higher educational requirements than the DHATs in Alaska (Pew Charitable Trusts, 2014). The state of Maine recently passed legislation authorizing midlevel dental hygiene practitioners (Pew Charitable Trusts, 2014). This midlevel dental hygiene practitioner was modeled after the DHAT in Alaska and dental therapy models in Minnesota. Services that these midlevel providers can perform include conducting case management, assessing risk, and providing routine restorative care in addition to the traditional dental hygiene services (Pew Charitable Trusts, 2014). These dental hygiene practitioners could practice independently in a variety of settings and refer patients needing more advanced services to dentists or other dental specialists (e.g., endodontists or oral surgeons) (Pew Charitable Trusts, 2014). Additional states with proposed dental hygiene practitioner models include New Mexico, Kansas, Washington, Connecticut, New Hampshire, Massachusetts, and Vermont (ADHA, 2014).

The increasingly complex needs of the public and the advanced practitioner roles have urged key stakeholders to collaborate on the future of the dental hygiene profession. The ADHA, the Santa Fe Group, and the ADHA's Institute for Oral Health (IOH) joined together to host a symposium, "Transforming Dental Hygiene Education, Proud Past, Unlimited Future" (hereafter known as "THE SYMPOSIUM"), on transforming dental hygiene education to meet the needs of underserved populations and to address the issue of advancing the profession (ADHA, 2014). Attending this symposium were dental and other health care professionals, educators, insurers, researchers, and officials from both the public and private sectors (ADHA, 2014). Examination of the current dental hygiene curriculum and recommendations for its transformation to determine the future growth of the dental hygiene profession was the focus of this symposium (ADHA, 2014). "Changes underway in health care and health care delivery in America could drive the transformation of dental hygiene education" (Sparer, as cited in ADHA, 2014). Attendees of the symposium questioned the title of "dental hygienist" due to the narrow focus on cleanliness and not the expanded roles necessary for solving the access to care issue. Attendees suggested a professional title change such as "oral health practitioner" or "community oral health care provider" to encompass the expanded role of the dental hygienist as a member of the primary health care team, qualified to provide treatment for the underserved populations. Professionals in nursing, pharmacology, and physician assisting described how these professions moved forward with advancing their education to meet the increasing needs of the public (ADHA, 2014).

During the symposium, one speaker described the nursing profession and the transformation of the education process that ensued based on the growing health care

needs of the public (ADHA, 2014). This educational transformation led to the incorporation of leadership and professional development so that nurses could become full partners with physicians and other health professionals (ADHA, 2014). The nursing profession has set an example for the dental hygiene profession to follow as more complex public health care needs must be addressed. In order to meet these needs, the nursing profession has incorporated competencies within its curriculum to include leadership, health policy, system improvement, research, and evidence-based practice (IOM, 2010).

Another speaker at the symposium discussed the transformation of the profession of pharmacy over the last 40 years. Originally, a degree in pharmacy required a baccalaureate degree until 2004, when a doctoral degree became the entry level for the profession (ADHA, 2014). Increasing the requirement for the profession was due to the growth and complexity of the pharmaceutical industry and increasing changes in health care (ADHA, 2014). The new doctoral curriculum "[incorporated] IOM core competencies for the health professions: patient-centered professionals functioning in team-based care that is evidence-based and emphasizes quality and health information technology competence" (ADHA, 2014, p. 22).

A physician assistant (PA) described the similarities between dental hygiene and the PA profession, especially regarding the lack of clear identity perceived by the public (ADHA, 2014). Physician assistants' working environment expanded from primary care and emergency rooms to all fields of health care (ADHA, 2014). The speaker encouraged dental hygienists to explore areas where services are needed, and whether these needs are geographic, economic, or age-specific (ADHA, 2014). In addition, the speaker

recommended “dental hygienists consider broader leadership roles as systems of oral health care are introduced, and in case management or quality and compliance management” (ADHA, 2014, p. 22).

The symposium concluded with a strategic planning workshop to discuss moving forward with transforming dental hygiene education. Five topics were discussed which included state practice acts, accreditation standards, financing and business plans, new practice locations and collaborations, and interprofessional education (ADHA, 2014). The attendees were to identify barriers to this transformation of dental hygiene education and identify strategies to address these barriers.

Immediately following this symposium, the ADHA convened with its Board of Trustees for an executive meeting to formulate the ADHA 2014-2015 Strategic Plan based on the outcomes of the symposium. The ADHA Strategic Plan created a core ideology, which is “to lead the transformation of the dental hygiene profession to improve the public’s oral and overall health” (ADHA, 2013, p.1). The ADHA vision statement furthered this ideology by stating, “dental hygienists are integrated into the healthcare delivery system as essential primary care providers to expand access to oral health care” (ADHA, 2013, p.1). One goal of the strategic plan focused on dental hygiene education, “dental hygiene professionals will be prepared for the evolving scope of professional practices and settings” (ADHA, 2013, p. 2). The first objective for education stated, “Strengthen collaborative partnerships to transform the formal education for dental hygiene professionals” (ADHA, 2013, p.2).

Because the Board felt so strongly about the action plans and objectives of the strategic plan, it moved to immediately adopt and implement the strategic plan in order to

expedite the action plans. Typically, the strategic plan is adopted and then carried out the following year, which would have been delayed until 2015 (P. Steinbach, personal communication, 2014). ADHA partnered with the Academy for Academic Leadership (AAL) to formulate a pilot group to facilitate the development of curricular and program domains (Battrell, Niessen, & Steinbach, 2014). The pilot programs were based on the symposium and focused on the changes to dental hygiene curricula related to future dental hygiene practice, the dental workforce, and overall patient care (Battrell, Niessen, & Steinbach, 2014). The following goals were proposed for this pilot project: identify the domains for curriculum reform specific to dental hygiene education, align a new curriculum to the vision of ADHA, and facilitate discussion with members of the pilot programs (University of Missouri-Kansas City, Eastern Washington University, Idaho State University, Vermont Technical College, Miami Dade College, and University of Detroit-Mercy; Battrell, Niessen, & Steinbach, 2014). New domains have been created for the transformed entry-level dental hygiene program to include: foundational knowledge (basic, behavioral, and clinical science knowledge), customized patient-centered care (skills in patient assessment, dental hygiene diagnosis and dental hygiene therapies to foster oral and systemic health), management in healthcare systems (business skills, advocacy, and skills of change agent to integrate oral health into health systems), interpersonal communication and interprofessional collaboration (communication skills with patients and health care teams), critical thinking (use of knowledge of critical evaluation of the research and evidence- based skills and clinical judgment in providing dental hygiene care), and professionalism (values and ethics needed for the provision of

compassionate, patient-centered, evidence based care that meets standards of quality) (American Academy of Leadership, 2014).

While ADHA is leading the transformation of dental hygiene education, none of this will occur without dental hygiene students being taught strong leadership skills. Leadership skills are the foundation for future dental hygiene practice, the dental workforce, and overall patient care. As previously noted, other professions such as nursing, pharmacy, and physician assistant have embraced leadership and professional development into the competencies within curricula to foster collaboration with other healthcare professionals. In the symposium, an associate dean of nursing recommended a partnership with dental hygiene and other healthcare disciplines such as pharmacy and nursing. This team-centered approach can promote interprofessional collaboration as a way to generate better patient-centered care (ADHA, 2014). Leadership skills are necessary for interprofessional collaboration. Without teaching strong leadership skills to future dental hygiene students, the dental hygiene profession will remain stagnant and the current and evolving needs of the public will remain unmet.

Goals, Domains, and Competencies for Leadership Education for Dental Hygiene Professionals

Leadership training programs are being created to foster student-faculty interactions focused on leadership development. Characteristics of an ideal leadership training program for dental hygiene professionals include focusing on the development of strengths, concentrating on adult active learning, and reflecting on the institution's long-term commitment to building leadership skills in alumni (Taichman et al., 2012a). Desveaux et al. (2012) emphasized that "health care organizations throughout the world

are increasingly examining the need for both formal leadership training and informal leadership roles and practices distributed throughout the health system to both promote and advance innovative health care practices" (p.368). Three leadership characteristics that are consistently related with effective leadership in multiple health fields include vision, emotional intelligence, and business acumen (Desveaux et al., 2012). By participating in a leadership training program or course, students could be exposed to alternative career paths that might not have been previously considered.

Domains and competencies. The framework of dental hygiene curricula is comprised of domains and competencies. Domains are classifications of objectives that have been divided into three separate categories: cognitive, psychomotor and affective (Morrison, Ross, Kalman, & Kemp, 2011). The cognitive domain is related to the intellectual aspects of learning, the psychomotor domain focuses on the skills required for physical activity, and the affective domain involves attitudes, appreciations, and values (Morrison et al., 2011).

Competencies have been equated with outcomes or objectives (Boland, 2012). Competency-based instruction "provides and evaluates instruction against a specific standard and indicated by the learning objectives for the topic or task" (Morrison et al., 2011, p. 473). These competencies or outcomes are generally what students are expected to demonstrate prior to program completion (Boland, 2012).

Domains and competencies in dental hygiene curriculum. Entry-level dental hygiene programs consist of associate-level or baccalaureate degree programs; both accredited by the Commission on Dental Accreditation (CODA), the accrediting body mandating the standards for entry-level into the dental hygiene profession (CODA,

2013). Dental hygiene degree completion programs differ with regard to accreditation. Instead of being accredited by CODA, degree completion programs are recognized through the individual program's institution, which serves as the umbrella for accreditation (Portillo et al., 2013). Establishing learning outcomes for program assessment is one accreditation standard for all programs (Portillo et al., 2013). This flexibility allows academic freedom for degree completion programs to focus on expanding in the areas of education, research, public health, and advocacy. The majority of degree completion programs focus on the roles of educator, researcher, and public health dental hygienist (Portillo et al., 2013).

CODA (2013) listed four areas of curriculum content for entry-level dental hygiene programs to include general education, biomedical sciences, dental sciences, and dental hygiene sciences. General education subject matter must include oral and written communications, psychology, and sociology (CODA, 2013). Biomedical science content must contain anatomy, physiology, chemistry, biochemistry, microbiology, immunology, general pathology and/or pathophysiology, nutrition, and pharmacology (CODA, 2013). Tooth morphology, head, neck and oral anatomy, oral embryology and histology, oral pathology, radiography, periodontology, pain management, and dental materials are the areas of content that must be included in the dental sciences area of study (CODA, 2013). Lastly, dental hygiene sciences must include the areas of oral health education and preventive counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral

health care services to patients with bloodborne infectious diseases (CODA, 2013). Leadership was not listed in any subcategory of these content areas for entry-level programs. On the other hand, CODA (2010) does include leadership in the accreditation standards for dental education programs, Standard 2-18, "Graduates must be competent in applying the basic principles and philosophies of practice management, models of oral health care delivery, and how to function successfully as the leader of the oral health care team," (CODA, 2010, p. 27).

Competencies and domains for entry-level dental hygiene programs include core competencies (e.g., foundational knowledge such as ethics, values, and clinical science), health promotion and disease prevention, community involvement, patient care, and professional growth and development created by the American Dental Education Association (ADEA, 2012). While community involvement includes participation within the local, state, and national levels, leadership skills as part of this domain are not mentioned. Additionally, professional growth denotes opportunities that may increase patient access to care or teach the practitioner how to influence the profession to meet ever-changing healthcare needs; leadership is not mentioned in this competency as a way to fulfill this requirement (ADEA, 2013). If leadership is not required in areas of dental hygiene sciences, community involvement, or professional growth, dental hygiene programs are not likely to incorporate leadership into curriculum.

Leadership in curriculum. A study by Victoroff, Schneider, and Perry (2008) discovered that the majority of students viewed leadership as part of their profession and would willingly participate in leadership training programs within their teaching institutions if offered. The purpose of this study was to investigate perceptions of dental

students with regard to leadership development. A self-administered paper and pencil survey containing 47 questions was given to 272 students with an 83 percent response rate (Victoroff, Schneider, & Perry, 2008). The results of the study showed the majority of students agreed that leadership skills were important and leadership skills can be learned (Victoroff, Schneider, & Perry, 2008). Most students expected to serve in a leadership role in private practice, take part in volunteer dentistry, and participate in non-dentistry related leadership roles within associations (Victoroff, Schneider, & Perry, 2008). "Students reported interest in improving their confidence, assertiveness, ability to communicate effectively (including public speaking), ability to listen to others, organizational skills, and ability to influence others" (Victoroff, Schneider, & Perry, 2008, p. 982). The findings of this study supported the notion of leadership development programs (Victoroff, Schneider, & Perry, 2008). While this study was related to dental students, the same principles can be applied to dental hygiene students.

Taichman et al. (2012b) listed competencies that a leadership course should include: communication skills, the ability for self-reflection, critical thinking and problem-solving skills, professionalism, ethics, and social responsibilities. Students must learn communication skills to persuade and inspire stakeholders and policymakers, learn to network, and also negotiation skills to conduct business (Taichman et al., 2012b). In addition, effective writing skills are essential for leadership roles in order to convey concepts, information, and points of view in a professional manner. The ability for self-reflection teaches the student how a leader can share a vision and then turn that vision into action (Taichman et al., 2012b). Critical thinking and problem-solving skills equip students with the ability to identify unsolved problems, see the problem from different

perspectives, and determine courses of actions (Taichman et al., 2012b). Ethical principles are important professional attributes for dental hygienists in all aspects of the profession, but are specifically important in a leadership role. Listed in the Code of Ethics are nonmaleficence, beneficence, justice, veracity, and autonomy, which are the foundation of all dental professionals (Taichman et al., 2012b).

Leadership skills dovetail into interprofessional education and collaboration, especially with regard to the new proposed domains created by the ADHA/AAL pilot group. Interprofessional collaborative practice incorporated competency domains that include values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teamwork (Interprofessional Education Expert Panel, 2011), which are similar to those outlined by Ledlow and Coppola (2011).

Dental hygiene degree completion leadership curriculum. A study conducted by Gwozdek, Springfield, Peet, and Kerschbaum (2011) outlined the framework for a dental hygiene degree completion program. Faculty members researched best practices, planning outcomes and courses, and implementation of an online learning dental hygiene degree completion program (Gwozdek, Springfield, Peet, & Kerschbaum, 2011). The program was created based on the ADHA six focus areas: research, education, licensure and regulation, practice and technology, public health, and government. In this study, Gwozdek et al. (2011) established goals for the University of Michigan dental hygiene degree completion program, "to develop leaders in the dental hygiene profession, prepare dental hygienists to work as members of multidisciplinary health care teams and in alternative practice settings, and prepare dental hygienists for expanded roles and career opportunities" (p. 342). The result of this study was a collaborative and portfolio-

integrated program focused on developing leaders in the profession. Leadership and professional development were listed as the first of the five domains created for this program. Information literacy and communication, health promotion and disease prevention, evidence-based practice, and community were the other domains for this dental hygiene degree completion program (Gwozdek et al., 2011).

A three-credit academic course on leadership and professional development is offered during the first semester of the dental hygiene degree completion program. Course objectives focus on lifelong learning being an essential element of professionalism and on current issues in dental hygiene, and how individuals can contribute to the advancement of the profession and promotion of oral health for the public (Gwozdek et al., 2011, p. 343). The course on oral diseases was designed to facilitate critical thinking skills regarding oral diseases and the link to oral and systemic health. During the second semester, a course on health promotion and risk reduction focused on the student's ability to analyze and evaluate attitudes, beliefs, and behaviors related to health and illness. Other courses focused on analysis, planning, implementation, and evaluation of programs using critical thinking skills. The Gwozdek et al. (2011) study focused on the creation and implementation of a distance education program with a focus on leadership within the curriculum; however, no future recommendations were noted with regard to leadership within dental hygiene degree completion programs.

In the study completed by Portillo et al. (2013), of the 60 degree completion dental hygiene programs in the United States, approximately 30 percent offer either a course in leadership or include leadership concepts within a course. The current number

of degree completion dental hygiene programs in the United States is 53 (ADHA, 2014). The content within these courses is unknown. The study conducted by Portillo et al. was to identify specific information related to learning experiences, assessment methods, and baccalaureate institutional partnerships. Forty-two of the 60 degree completion dental hygiene programs met the inclusion criteria (had been in operation for three years, housed in a United States academic institution, and included in the ADHA list of degree completion programs) and were invited to participate in a 38 question online survey. A 62 percent response rate was noted from the Southeast, Northeast, Southwest, Midwest, and Northwest regions of the United States. Of the 26 programs that responded, 25 offered learning experiences in education, research, and public health. Eight of the 26 programs reported leadership in the core dental hygiene courses, and only one program reported health policy and administration as a specialty track or area offered. Portillo et al. stressed the importance of leadership in degree completion programs as a recommendation from the study (Portillo et al., 2013).

The findings of the Portillo et al. (2013) study revealed that content of leadership in curricula is unknown and stressed the importance of leadership in degree completion programs. The Gwozdek et al. (2011) study demonstrated a framework for dental hygiene degree completion programs that includes leadership as a domain and offers a stand-alone leadership course within the curriculum. No other studies were found regarding leadership and dental hygiene degree completion programs. With the findings of the Portillo et al. (2013) study results determining that leadership content is unknown within dental hygiene degree completion programs, a study to determine to what extent leadership is taught either as a stand-alone course or infused throughout the curricula was

necessary in order to assess specific topics taught and the effectiveness of the leadership skills taught in degree completion programs.

Conclusion/Recommendations

The dental hygiene profession is at a crossroad. For the dental hygiene profession to advance and meet the growing oral health needs of the public, leadership skills must be taught and then developed once graduates are working in the profession. The primary goal of this study was to assess the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses versus leadership-infused curricula. The results of this study will determine if additional leadership skills are needed within the curricula or if additional topics and skills should be included in stand-alone leadership courses. A leadership educational domain added to dental hygiene degree completion programs with specific core competencies targeting quality leadership skills is paramount to prepare dental hygiene graduates to utilize these skills necessary to serve in leadership roles and promote the profession.

Chapter III: Methodology

Introduction

With the oral health needs of the public becoming more complex and millions of people without access to care, dental hygienists should be more fully integrated into the health care system to provide essential oral care as primary care providers to expand access to care for under and unserved populations (Pew Charitable Trusts, 2011). The development of leadership skills and advancing dental hygiene education to include public health policy, research, and expanded functions will help dental hygienists' achieve this role; however, leadership skills taught in dental hygiene degree completion programs appear to be lacking (Portillo et al., 2013). The purpose of this study was to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses versus leadership-infused curricula. Program and course competencies related to leadership were examined as part of this study. The research question for this study was to determine if there was a difference in the extent of leadership content and experiences between a stand-alone leadership course and leadership-infused curriculum in dental hygiene degree completion programs. The research design used in this study was a mixed approach using both quantitative and qualitative methods (Creswell, 2013).

Design

Personal interviews of program directors and faculty members who teach either a stand-alone leadership course or leadership-infused courses within the dental hygiene degree completion curricula were conducted. A comparison of course syllabi and curricular maps determined differences in the extent of leadership content and

experiences between a stand-alone leadership course and leadership-infused curriculum in dental hygiene degree completion programs. In addition, the content taught in these courses was compared to a framework of leadership skills for health care professionals, created by Ledlow and Coppola (2011). Course competencies related to leadership were examined in this study. The results of this study will add to the body of knowledge regarding the need for additional leadership skills within leadership-infused curricula, or if additional topics and skills should be included in stand-alone leadership courses.

For the qualitative portion of this study, program directors and faculty members that teach stand-alone leadership courses or leadership-infused courses within dental hygiene degree completion programs participated in a voluntary, personal interview. Personally interviewing individual program directors and faculty members served as the research method for this study to gain meaningful insight as to the specific course content within these courses (Creswell, 2013). Program directors and faculty members had the opportunity to expand on what is taught in their respective programs and offered more information than participating in a traditional survey. Semi-structured, open-ended interviews were audio recorded, and transcribed later. The interview process enabled the interviewee to gather data to study variables. Variables to be studied once the information was gathered included the status of the interviewee (program director or faculty member), perceptions of the program director and/or faculty member with regard to their respective course or curricula, the skills taught in stand-alone leadership courses and leadership infused curricula, course syllabi, curricular maps, and leadership skill sets as defined by Ledlow and Coppola (2011).

The quantitative portion of this study used matrices as the proposed method of measurement created to compare skill sets taught within stand-alone leadership courses and leadership-infused curricula. A matrix (see Appendix A) created by leadership skills found in the text, "Leadership for Health Professionals: Theories, Skills, and Applications" (Ledlow & Coppola, 2011) provided a framework for which the leadership skills taught in either stand-alone leadership courses or leadership-infused curricula are measured. This text was chosen as the framework for this matrix due to the focus on leadership skills for health professionals. By comparing the stand-alone leadership courses and leadership-infused curricula to the matrix created based on the Ledlow and Coppola (2011) text, common themes became evident. This method assisted in identifying skills that may be lacking in either the stand-alone leadership course or leadership-infused curricula.

Description of Setting

Personal telephone interviews were conducted with program directors and faculty members that teach either a stand-alone leadership course or leadership infused curricula. Many program directors expressed interest in being personally interviewed for this study. The likelihood of receiving a good response rate was higher for personal telephone interviews than surveys distributed through online survey methods (Creswell, 2013). By personally interviewing program directors and faculty members via telephone, a more informal, accurate, and candid response was noted. Many program directors had informally agreed to provide course syllabi for stand-alone leadership courses and leadership-infused curricula courses. Several program directors had informally agreed to provide curricular maps of the leadership-infused curricula.

Research Participants

Sample description. A stratified purposeful sample of program directors and faculty members that teach either a stand-alone leadership course or leadership-infused within the dental hygiene degree completion curricula were personally interviewed via telephone for approximately 30 minutes (Creswell, 2013, Thomas, 2006). With 53 degree completion programs and not all offering either a stand-alone or leadership infused curricula, interviews were determined depending on the number of programs offering each method of delivery. Rapport had been established with many program directors due to the interviewer's employment at ADHA. Inclusion criteria for the participants of these degree completion programs included: the degree completion program must be in operation for three years, housed in a United States accredited academic institution, and included in the ADHA list of degree completion programs.

Human subjects' protection. Human Subjects Committee approval was obtained for the interview portion of this study. A preliminary invitation was emailed to all program directors and faculty members whose programs met the inclusion criteria. This preliminary invitation assisted the interviewer with determining which set of interview questions to use for the interviews (stand-alone leadership course or leadership-infused curricula). Informed consent forms were emailed to participants approximately one week prior to the scheduled interview. After completing the informed consent and demographic information (See Appendix B), interviews were conducted by telephone using a separate list of prepared questions for program directors and/or faculty that taught a stand-alone course, and program directors and/or faculty that taught leadership-infused curricula courses (See Appendix C and D). Participants had the option of continuing or

terminating the scheduled interview after completing the informed consent form. Participants had the option of remaining anonymous for the discussion and results segments of the study. Each participant was assigned a code that was placed on the documents pertaining to that participant. The participants had an opportunity to approve what was transcribed for accuracy.

Data Collection

Instruments. A matrix based on leadership skills for health care professionals (Ledlow & Coppola, 2011) was created as a framework to measure the skill sets taught in stand-alone leadership courses and leadership-infused curricula. Course syllabi and curricular maps were collected from dental hygiene degree completion programs that taught stand-alone leadership courses and leadership-infused curricula to create a matrix for comparison. This matrix identified common themes of leadership skills, along with any outlier skills for either stand-alone leadership courses or leadership-infused curricula. Outliers were skills or outcomes that were not among the common skills taught in either stand-alone leadership courses or leadership-infused curricula. The combined stand-alone leadership course and leadership-infused curricula matrix were compared to the framework matrix to analyze common themes and outliers. The demographic information and semi-structured interviews were used to assess the perceptions of program directors and faculty.

Procedure and protocols. Interviews were audio recorded with an ESONIC cell phone recording device, and a predesigned form (See Appendix C and D) was used to record information collected during the interviews (Creswell, 2013). These procedures were put in place to assure the reliability of the study (Creswell, 2013). The descriptive

analysis was performed using these lists of prepared questions and displayed participants' perceptions of leadership skills taught within their respective programs. Personal interviews were conducted with a small sample (five or six) of program directors/faculty of dental hygiene degree completion programs that offered a stand-alone leadership course or leadership-infused curricula. This sample size was chosen due to the limited number of programs that offered stand-alone leadership courses and the unknown number of programs that offered leadership-infused curriculum (Portillo et al., 2013). Also, in meeting with the statistician, this sample size was recommended because saturation was likely to be reached with a smaller sample size when no new information has been collected. Open-ended questions allowed the participant to respond more freely. Although the interviewer used a list of prepared questions, the interviewer reordered questions if necessary, to gain more information from the respondent. The predesigned forms for the interviews were transcribed from the audio recording as documents to serve as backup copies on a computer. A master list of all conducted interviews was created, and the participants' names masked/coded to protect anonymity. The interviewer took notes during the interview to immediately check for understanding and accuracy.

A matrix was created for the stand-alone leadership courses and the leadership-infused curricula by gathering data from course syllabi and curricular maps to identify common themes. Data collected from course syllabi and interviews included course names, leadership skills taught, how leadership skills are measured, expected outcomes, and outliers. This matrix was compared to a framework matrix created from the leadership skills for health care professionals by Ledlow and Coppola (2011). A master

list was developed of all dental hygiene degree completion programs and the types of information gathered, and the schools' names were masked to protect anonymity.

Limitations

Limitations to the study included the analysis, time constraints, the nature of self-reporting, the instruments used for the study, and the sample size (Oatey, 1999, Creswell, 2013). The volume of data made the analysis and interpretation time consuming (Oatey, 1999). Personal bias of the interviewer could have influenced the respondents. This author/interviewer personally knew several of the program directors that informally agreed to participate in an open-ended interview. The interviewer maintained neutrality and did not offer personal perceptions to influence the respondents to minimize bias. Confusion may have occurred either from lack of understanding the question by the interviewee or lack of understanding of the participant's response by the interviewer (Oatey, 1999). The interviewer verified the participants' response and clarified any questions that were unclear. Periodically, the interviewer paused to read back information recorded to ensure the accuracy of the information being captured. The formal report of data collected from the interview was sent to the participants for review to assure participants that their viewpoint was captured correctly and without bias. Participants may not have been entirely honest due to feelings of embarrassment, inadequacy, lack of knowledge on the topic, nervousness, memory loss, or confusion (Oatey, 1999). Due to the smaller sample size for the study, the findings may not be generalized to be reflective of all dental hygiene degree completion programs that offer either a stand-alone leadership course or leadership-infused curricula.

Proposed Statistical Analysis

This study was a mixed method of qualitative and quantitative data; therefore, descriptive statistics and qualitative assessment were used. During the interviews, participants were questioned on their perceptions of leadership skills within their respective programs. Reflective notes were written in the spaces provided within the predesigned interview (Thomas, 2006). Patterns and themes were identified and categorized (Thomas, 2006). Interpretation of data was a descriptive narrative of common themes representing perceptions from program directors and faculty of stand-alone leadership and leadership-infused curricula (Thomas, 2006). For the matrices comparison, common themes and outliers was synthesized by classifying patterns and themes, and displayed in a matrix for comparison (Ledlow & Coppola, 2011; Thomas, 2006). With the sample size of participants relatively small for this study, saturation of material occurred with fewer participants. After meeting with the statistician, an accepted level of significance was five to six participants in each group (excluding hybrid programs). The methods used for this study were chosen due to the reliability and validity of the Ledlow and Coppola (2011) text as a framework to measure the skill sets in the stand-alone leadership courses and leadership infused curricula.

Conclusion

By using a mixed approach of quantitative and qualitative methods, this study aimed to investigate the extent of leadership content taught in stand-alone leadership courses and dental hygiene degree completion programs offering leadership-infused curricula. Through personal interviews with program directors and faculty members that teach stand-alone leadership courses or leadership-infused courses within dental hygiene

degree completion programs, and a matrix comparing leadership skills taught in stand-alone leadership courses or leadership-infused curricula, the results of this study assessed the need for additional leadership skills within leadership-infused curricula, or if additional topics and skills should be included in stand-alone leadership courses. This manuscript will be submitted to the Journal of Dental Education for publication (See Appendix E).

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Appendix A

Matrix Comparison of Leadership Skills in Stand-Alone Leadership Courses and Leadership-Infused Curricula

Program	Course name (if applicable)	Measurement of leadership skills	Expected Outcomes	Communication	Professional Development	Emotional Intelligence	Integrity	Advocacy	Outliers
School A -Stand Alone									
School B -Stand Alone									
School C -Stand Alone									
School D -Stand Alone									
School E -Stand Alone									
School F-Leadership Infused									
School G-Leadership Infused									
School H-Leadership Infused									
School I-Leadership Infused									
School J-Leadership Infused									

Appendix B

Informed Consent Document

My name is Michelle Smith and I am a graduate student at Idaho State University. The purpose of this telephone interview is to obtain information regarding leadership in dental hygiene degree completion programs for my thesis study. You have been selected to participate in this research because you are either a stand-alone leadership course instructor or a program director of a leadership-infused program or program offering a stand-alone leadership course.

1. The purpose of this study is to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses with a leadership infused curricula.
2. Procedures: This interview will be recorded and quickly transcribed for accuracy. You will have the opportunity to approve information once it has been transcribed.
3. Potential risks or discomforts: There are no known risks to this study. If any of the questions make you feel uncomfortable, you may ask to skip any question. Identifying information will not be made publicly available or published in the research document.
4. Anticipated Benefits: There are no direct benefits to you. All data collected will be used for research purposes.
5. Incentives for Participation: You will not be paid for completing the survey and there are no costs to you other than time.

6. Privacy and Confidentiality: Personal identifying information will not be made public or be included in the research documents.
7. Rights of the Research Participants: Participation in this research project is voluntary. Participation is not a requirement. There will be no negative consequences for declining to participate or for withdrawing from the study.

Your participation in this interview is sincerely appreciated and important to obtaining information on the topic of leadership skills taught within degree completion programs throughout the United States. The interview will take approximately 30 minutes to complete. You are encouraged to provide answers that are representative and related to your individual program. Your sincerity and honesty are greatly appreciated and will be valuable for this research study.

If you have any questions or would like to discuss the interview process prior to our scheduled call, please feel free to contact me, Michelle Smith, at smitmic9@isu.edu or michelles@adha.net. My mobile number is 815-210-5957. You may ask any questions about the study while participating in the interview. I would be happy to share the findings of this study with you after the research is completed. Your name will not be associated with the research findings in any way, only I will know your identity as a participant.

The first four questions are related to the informed consent process to voluntarily participate in this survey. If you answer "NO" to any of the first four questions the interview will be not be scheduled.

1. Do you understand that participation in this interview is entirely voluntary?
    - ○ Yes
    - ○ No
2. Do you understand your responses to this interview are strictly confidential and your anonymity is protected? Responses will be reported in group format only. Any direct quotes will be blinded to protect your anonymity.
    - ○ Yes
    - ○ No
3. Do you understand that your individual answers are for research and data analysis only and cannot be traced back to you?
    - ○ Yes
    - ○ No
4. Do you understand that you may refuse to answer any of the questions you are not comfortable with, and may discontinue participation in this interview at any time?
    - ○ Yes
    - ○ No

Demographics

5. What is your level of education?
    - ○ AA/AS degree
    - ○ BA/BS degree
    - ○ MA/MS degree
    - ○ PHD degree
    - ○ Other, please explain_____

6. What are your credentials? (Select all that apply)

    ○ Registered Dental Hygienist

    ○ Dentist

    ○ Educator

    ○ Public Health Professional

    ○ Other, please explain_____

7. How long have you held the position of teaching leadership as a stand-alone course or infused throughout curricula to dental hygiene degree completion students?

    ○ Less than one year

    ○ One - five years

    ○ Six – ten years

    ○ More than ten years

8. Do you wish to continue and participate in the interview?

    ○ Yes

    ○ No

_____ _____

Signature Date

Appendix C

Interview Questions for Faculty Teaching Stand-Alone Leadership Course

1. What year did your degree completion program begin?

2. What is the title of the leadership course that you teach/offer?

3. How long has this course been offered at your institution-since the inception of the program or after the program had been around for years?

4. Why was the stand-alone leadership course added to your program?

5. What leadership skills are taught in this course?

6. How is leadership incorporated within your curriculum?

7. How do you measure competency of the leadership skills taught in your course?

8. What leadership competencies are taught in this course?

9. Does your course require a leadership project? If so, please describe the leadership project students must complete in your course. What is the specific objective of this project?

10. Are leadership skills taught in other courses within your program's degree completion program?

    If so, which courses?

    If not, why do you think leadership skills are not being taught in these courses?

11. How does your program's stand-alone course prepare graduates for leadership roles within the dental hygiene profession?

12. Do you believe a stand-alone leadership course is enough to prepare dental hygiene graduates for leadership roles?

    Why or Why not?

13. What barriers exist regarding the infusion of leadership concepts throughout your program's curriculum?

14. What changes do you think would be beneficial to your program's curricula to better prepare graduates for roles in leadership?

15. Based on your experience, what can be done to enhance leadership skills taught in dental hygiene degree completion programs?

Appendix D

Interview Questions for Faculty Teaching Leadership-Infused Curricula

1. What year did your degree completion program begin?

2. What does your institution define as “leadership-infused”?

3. How long has this leadership-infused curricula been offered at your institution-since the inception of the program or after the program had been around for years?

4. What courses in your program infuse leadership within the content?

5. What leadership skills are taught in these courses?

6. How is leadership incorporated within your curriculum?

7. How do you measure competency of leadership skills taught within your program?

8. What leadership competencies are taught throughout the leadership-infused curriculum?

9. Does your program require a leadership project? If so, please describe the leadership project students must complete in your course. What is the specific objective of this project?

10. Does your program offer a stand-alone leadership course within the leadership-infused curricula?

    If so, what is the name of the course?

    If not, why does your program not offer a stand-alone course?

11. What barriers exist regarding the incorporation of a stand-alone leadership course?

12. What changes do you think would be beneficial to your program’s curricula to better prepare graduates for roles in leadership?

13. Do you think your program's leadership-infused curriculum prepares graduates for leadership roles within the dental hygiene profession?

    Why or Why not?

14. Based on your experience, what can be done to enhance leadership skills taught in dental hygiene degree completion programs?

Appendix E

Journal of Dental Education Manuscript Guidelines

Title: An informative and concise title limited to 15 words with no more than 150 characters.

Abstract: For research studies, a structured abstract of no more than 250 words should be submitted with the following subheads:

Purpose/Objectives: Briefly summarize the issue/problem being addressed.

Methods: Describe how the study was conducted.

Results: Describe the results.

Conclusion(s): Report what can be concluded based on the results, and note implications for dental education.

Abstracts for other types of manuscripts should be in paragraph form, with no subheads.

Introduction: Provide a succinct description of the study's background and significance with references to the appropriate published literature. Detailed literature review/discussion should be reserved for the discussion section. Include a short paragraph outlining the aims of the study.

Materials and Methods: A statement that the study has been approved or exempted from oversight by a committee that reviews, approves and monitors studies involving human subjects **MUST** be provided at the beginning of this section, along with the IRB protocol number.

In this section, provide descriptions of the study design, curriculum design, subjects, procedures and materials used, as well as a description of and rationale for the statistical analysis. If the design of the study is novel, enough detail should be given for other

investigators to reproduce the study. References should be given to proprietary information.

Results: The results should be presented in a logical and systematic manner with appropriate reference to tables and figures. Tables and figures should be chosen to illustrate major themes/points without duplicating information available in the text.

Discussion: This section should focus on the main findings in the context of the aims of the study and the published literature. The authors should avoid an extensive review of the literature and focus instead on how the study's findings agree or disagree with the hypotheses addressed and what is known about the subject from other studies. A reflection on new information gained, new hypotheses and limitations of the study should be included, as well as guidance for future research.

Conclusion: The article should end with a short paragraph describing the conclusions derived from the findings and implications of the study for dental education.

The *JDE* considers only manuscripts that are in MS Word and submitted electronically (see "Submission and Production Procedures" below for the submission process). All manuscripts submitted to the journal should follow the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals," compiled and published by the International Committee of Medical Journal Editors (ICJME). Authors are also encouraged to refer to the code on good publication practice produced by the Committee on Publication Ethics.

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Manuscripts submitted for consideration should be prepared in the following parts, each beginning on a new page:

Title page

Abstract and keywords

Text

Acknowledgments

References

Tables

Figures

Figure titles if figures are provided as images

Blinding. Both blinded and non-blinded manuscripts should be prepared once the original manuscript has been completed. All institutional references should be removed from the body of the manuscript to produce the blinded version; please indicate in the file name which version is blinded.

Document Format. Create the documents on pages with margins of at least 1 inch (25 mm) and left justified with paragraphs indented with the tab key, not the space bar. Use double-spacing throughout and number the pages consecutively. Do not embed tables and figures in the body of the text but place them after the references; include callouts for each table or figure in the text (e.g., see Table 1). Unless tables vary

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Title Page. The title page should carry 1) the title, which should be concise but descriptive, limited to 15 words and no more than 150 characters; 2) first name, middle initial and last name of each author, with highest academic degrees; 3) an affiliations paragraph with the name of each author or coauthor and his or her job title, department and institution, written in sentence style; 4) disclaimers if any; 5) name, address, phone and email of author responsible for correspondence about the article and requests for reprints; and 6) support or sources in the form of grants, equipment, drugs, etc. See published articles for examples.

Abstract and Key Words/MeSH terms. The second page should carry the title and an abstract of no more than 250 words. For research studies, the abstract should be in the structured form described above. Abstracts should be written in the third person, and references should not be used in the abstract. The abstract should include the year of the study and, for survey-based research, the response rate. Below the abstract, provide three to five key words or phrases that will assist indexers in cross-indexing the article and will be published with the abs tract. At least three terms should come from the Medical Subject Headings listed at the National Library of Medicine. Guidelines for words found in the Medical Subject Headings can be found here. Authors should confirm these terms still exist in the Index Medicus or should search for more accurate terms if not found in our list. **NOTE:** Authors will also be prompted to identify Key Words when submitting their manuscripts in ScholarOne. These Key Words may differ from the items presented here. The Key Words identified in ScholarOne are generated from a list that will best

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Tables. Each table should have a title, numbered consecutively with Arabic numerals in the order in which they appear in the text. All tables should be in column format. Arrange column headings so that their relation to the data is clear. Indicate explanatory notes to items in the table with symbols or letters (note that asterisks should be used only with p-values) or in a general note below the table. Any sources should appear in a Source note below the table. All percentages in tables should include the % sign.

Section II: Publishable Manuscript

Leadership in Degree Completion Programs-A Study Comparing Stand-Alone Leadership Courses versus Leadership-Infused Curricula

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Abstract

Leadership in Degree Completion Programs-A Study Comparing Stand-Alone Leadership Courses versus Leadership-Infused Curricula

Purpose: The purpose of this study was to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses/hybrid programs versus leadership-infused curricula.

Methods: This study used a mixed method approach using both qualitative and quantitative data. Semi-structured interviews of program directors and faculty members that teach either a stand-alone leadership course, a hybrid program or leadership-infused courses within the dental hygiene degree completion curricula were conducted. A comparison of course syllabi determined the differences in the extent of leadership content and experiences between a stand-alone leadership course and leadership-infused curriculum.

Results: Of the 53 dental hygiene programs that offer degree completion programs, 49 met the inclusion criteria. Nineteen programs provided course syllabi. Sixteen program directors and faculty members that teach either a stand-alone leadership course or leadership-infused curricular courses participated in the interview portion of this study. Competencies related to leadership were not clearly defined or measurable. Barriers to incorporating a stand-alone leadership course to leadership-infused curricula included overcrowded curriculum, limited qualified faculty availability, and lack of resources.

Conclusion: The findings of this study provide a synopsis of leadership content in degree completion programs. Results of this study identified gaps in leadership

education for both leadership-infused curricula and hybrid programs offering a stand-alone leadership course. Suggested changes to degree completion program curricula included a need for leadership competencies and additional resources offered to educators such as leadership courses provided by the American Dental Education Association and the American Dental Hygienists' Association.

Key Words: degree completion programs, dental hygiene education, leadership, and leadership training.

Introduction

The oral health care needs of the public have become increasingly more complex, requiring a change in the depth and breadth of education, scope, and mode of delivery of comprehensive dental hygiene care. Millions of people go without dental care due to living in remote areas with either no dentist/clinic available, or the dentists/clinics do not accept Medicaid.[1] Dental hygienists possess the clinical skills to address the needs of the public, but most lack leadership skills and advanced training to assist with the access to care issue. A need for planned leadership is required to meet the complex and changing needs of the public and to provide dental hygiene graduates with the skill sets necessary to advocate for patients, become leaders in solo or collaborative practices, or at the local or national level of the profession.

Creating new levels of oral health practitioners such as dental hygiene practitioners or advanced dental therapists with leadership skills can address patient needs by allowing these practitioners direct access in community-based settings. Broader leadership roles in case management or quality and compliance management could expand the role of the dental hygienist.[2] Services that these midlevel providers can perform include conducting case management, assessing risk, and providing routine restorative care in addition to the traditional dental hygiene services.[3] These dental hygiene practitioners could practice independently in a variety of settings and refer patients requiring more advanced services to dentists or other dental specialists (e.g., endodontists or oral surgeons). [3]

Due to the increasingly complex needs of the public and the need for advanced practitioner roles requiring leadership skills, key stakeholders came together to discuss the future of the dental hygiene profession. The American Dental Hygienists' Association (ADHA), the Santa Fe Group, and the ADHA's Institute for Oral Health (IOH) joined together to host a symposium, "Transforming Dental Hygiene Education, Proud Past, Unlimited Future" (hereafter known as "THE SYMPOSIUM"), on transforming dental hygiene education to meet the needs of underserved populations and to address the issue of advancing the profession.[4] Examination of the current dental hygiene curriculum and recommendations for its transformation to determine the future growth of the dental hygiene profession was the focus of this symposium.[4] Attendees of the symposium questioned the title of "dental hygienist" due to the narrow focus on cleanliness and not the expanded roles necessary for solving the access to care issue. Attendees suggested a professional title change such as "oral health practitioner" or "community oral health care provider" to encompass the expanded role of the dental hygienist as a member of the primary health care team, qualified to provide treatment for the underserved populations.

Immediately following this symposium, the ADHA convened with its Board of Trustees (BOT) for an executive meeting to formulate the ADHA Strategic Plan based on the outcomes of the symposium. The BOT created a core ideology, which is to lead the transformation of the dental hygiene profession to improve the public's oral and overall health.[5] The ADHA vision statement furthered this ideology by stating that dental hygienists are integrated into the healthcare

delivery system as essential primary care providers to expand access to oral health care.[5] One goal of the strategic plan focused on dental hygiene education, that dental hygiene professionals will be prepared for the evolving scope of professional practices and settings. [5] The first objective for education focused on the strengthening of collaborative partnerships to transform the formal education for dental hygiene professionals.[5]

Because the BOT felt so strongly about the action plans and objectives of the strategic plan, it moved to immediately adopt and implement the strategic plan in order to expedite the action plans. ADHA partnered with the Academy for Academic Leadership to formulate a pilot group to facilitate the development of curricular and program domains.[6] The pilot programs were based on the symposium and focused on the changes to dental hygiene curricula related to future dental hygiene practice, the dental workforce, and overall patient care.[6] New domains have been created for the transformed entry-level dental hygiene program to include: foundational knowledge, customized patient-centered care (skills in patient assessment, dental hygiene diagnosis and dental hygiene therapies to foster oral and systemic health), management in healthcare systems (business skills, advocacy, and skills of change agent to integrate oral health into health systems), interpersonal communication and interprofessional collaboration (communication skills with patients and health care teams), critical thinking, and professionalism (values and ethics needed for the provision of compassionate, patient-centered, evidence based care that meets standards of quality).[7]

While ADHA is leading the transformation of dental hygiene education, none of this will occur without dental hygiene students being taught effective leadership skills. Leadership skills are important and the foundation for future dental hygiene practice, the dental workforce, and quality patient care. Without educating future dental hygiene students to develop strong leadership skills, the dental hygiene profession will remain stagnant and the current and evolving needs of the public will remain unmet.

Leadership skills are necessary in many other facets of the dental hygiene profession including research, education, licensure and regulation, public health, and government; however, leadership in dental hygiene education appears to be lacking.[2,8] With the majority of dental hygiene entry-level programs offered at the associate degree level,[9] leadership skills are not likely to be incorporated into an overcrowded, rigorous curriculum. Leadership is not listed in any category or subcategory of the content areas (e.g., general education, biomedical sciences, dental sciences, and dental hygiene sciences) mandated by the Commission on Dental Accreditation (CODA)[10] which regulates the standards for entry into the dental hygiene profession. Associate-level programs focus on traditional clinical dental hygiene practice; however, the goal of degree completion and baccalaureate degree dental hygiene programs is to prepare dental hygienists for advanced career roles in addition to traditional clinical dental hygiene practice.[11]

According to a survey of degree completion programs, only 31 percent of the responding programs reported a stand-alone leadership course in the core curriculum. Portillo et al.[8] affirmed that little is known about the subject of

leadership in degree completion programs. The purpose of this study was to compare the extent to which leadership is taught in degree completion programs by comparing stand-alone leadership courses versus leadership-infused curricula.

Methods

Human Subjects Committee approval (#4146) was obtained for the interview portion of this study by the Idaho State University Human Subjects Committee. The research design used in this study was a mixed approach using both quantitative and qualitative methods. An initial email was sent to program directors of all 53 degree completion programs to determine whether their respective programs offered leadership as a stand-alone leadership course or infused throughout the curriculum. Program directors responded and provided the contact information for faculty members that taught courses pertaining to leadership. Once the responses were noted, follow-up emails were sent to the program directors and faculty members requesting course syllabi along with an invitation to participate in the interview portion of the study. The quantitative portion of this study was evaluated by using matrices as the proposed method of measurement created to compare skill sets taught within stand-alone leadership courses and leadership-infused curricula. Table 1 outlines a self-designed matrix created by utilizing leadership skills found in the Ledlow and Coppola text, "Leadership for Health Professionals: Theories, Skills, and Applications"[12] as a framework for which the leadership skills taught in either stand-alone leadership courses or leadership-infused curricula were measured. The methods used for

this study were chosen due to the reliability and validity of the Ledlow and Coppola [12] text as a framework to measure the skill sets in the stand-alone leadership courses and leadership-infused curricula and assisted with identifying skills that may be lacking in either the stand-alone leadership course or leadership-infused curricula. This text is long proven as a credible tool for evaluating because it is dependable and confirmable (Creswell, 2013, p. 244).

Semi-structured interviews of program directors and faculty members that teach either a stand-alone leadership course or leadership-infused courses within the dental hygiene degree completion curricula were conducted for the qualitative portion of this study. A purposive sample of program directors and faculty members that teach either a stand-alone leadership course or leadership-infused within the dental hygiene degree completion curricula were interviewed via telephone for approximately 30 minutes. Interviews were audio recorded and transcribed later. Variables to be studied included the position title of the interviewee (program director or faculty member), perceptions of the program director and/or faculty member with regard to their respective course or curricula, the skills taught in stand-alone leadership courses and leadership-infused curricula, course syllabi, and leadership skill sets as defined by Ledlow and Coppola.[12] Inclusion criteria for the participants of these degree completion programs were: the degree completion program must be in operation for three years, housed in a United States accredited academic institution, and included on the ADHA list of degree completion programs.

Analysis of interviews was performed using lists of prepared questions and displayed participants' perceptions of leadership skills taught within their respective programs. The questions were created based on the literature related to leadership and curriculum. Table 2 shows the questions used for the interview with a program director/faculty member that taught a leadership-infused curriculum or stand-alone leadership course. Patterns and themes were identified and categorized using Thomas's inductive method.[13] Interpretation of data utilized a descriptive narrative of common themes representing perceptions from program directors and faculty of stand-alone leadership and leadership-infused curricula.

Results

Of the 53 degree completion programs, 49 programs met the inclusion criteria. Twenty program directors or faculty members (41%) reported that their institution offered a leadership-infused curriculum. Six program directors or faculty members (12%) responded that their institution offered both a stand-alone leadership course and leadership experiences throughout the curriculum (hereafter known as a "HYBRID PROGRAM"). Six program directors or faculty members (12%) reported that their institution offered a stand-alone leadership course. When contacted, these individuals did not state whether their respective programs offered leadership content and experiences throughout the program; therefore, it is unknown if these programs were hybrid programs. Thirteen program directors (27%) responded that their institution did not offer either a

stand-alone leadership course or leadership-infused curriculum. Four program directors (8%) did not respond.

Course Syllabi Analysis

Sixteen programs provided course syllabi for analysis. Six program directors provided course syllabi for leadership-infused programs. Five programs provided course syllabi for the hybrid programs. Five programs offering a stand-alone leadership course provided course syllabi. The following section describes the course topics/titles, formal competencies related to leadership, skill sets, and assignments provided by the course syllabi.

The following course topics/subject titles were considered leadership-infused by their program director and/or faculty members: Practice Management and Communications, Current Concepts for Dental Hygiene Practice, Community and Health Education, Teaching Strategies, Issues in Dental Hygiene, research, and professional development. The following course topics/subject titles were considered as having leadership content and experiences for the hybrid programs: Leadership in Dental Hygiene, Methodology and Leadership (a course that teaches half of the semester on leadership and half on educational methodology), Practice Management, Community Oral Health, professional development, and Contemporary Issues in Dental Hygiene. The following course topics/subject titles were considered as stand-alone leadership courses: Leadership in Self and Society, Principles of Leadership, Capstone Course for BSDH, Leadership and Group Dynamics, and Principles of Education II.

Two (33%) of the six leadership-infused programs had formal competencies related to leadership. Two (40%) of the five hybrid programs had formal leadership competencies and four (80%) of the five programs offering a stand-alone leadership course identified formal competencies. Table 3 lists examples of formal competencies by program type. It is important to note that four (67%) of the six leadership-infused programs, three (60%) of the five hybrid programs, and one (20%) of the stand-alone leadership courses did not have formal competencies related to leadership.

Leadership-infused, hybrid programs, and stand-alone leadership courses all measured leadership skills by assessment of written assignments/self-reflection quizzes, oral presentations, and examinations. At least one course in each of the hybrid programs required a leadership project, such as a presentation on leadership at the national, state, and community level, or an interview with a person in leadership. Three (60%) of the five stand-alone leadership courses required a leadership project and a leadership textbook. None of the leadership-infused programs required or recommended a leadership text for any of the courses in their curricula. Three (60%) out of the five hybrid programs required a leadership textbook for the stand-alone leadership course.

All programs incorporated communication skills and emotional intelligence (self-awareness, self-management, social awareness and relationship management skills) into their respective curricula. Four (67%) of the six leadership-infused programs included professional development skills such as professional competence, lifelong learning, and cultural competency. Three

leadership-infused programs (50%) incorporated integrity such as ethics and trustworthiness and four programs (67%) included advocacy. Professional development skills such as mentoring, lifelong learning and social responsibility were evident in four (80%) of the five hybrid programs. Attributes of integrity such as ethics and trustworthiness were incorporated in at least one course in each of the five hybrid programs. Advocacy was included in at least one course of each of the hybrid programs and included such topics as legal and regulatory issues, workforce models, and dental hygiene at the national, state and community level. Professional development skills were incorporated into three (60%) of the five stand-alone leadership courses. Four (80%) of the five stand-alone leadership courses incorporated emotional intelligence skills and attributes of integrity. Three (60%) of the five stand-alone leadership courses included advocacy through leadership projects or by describing future trends and decisions that may advance the profession of dentistry and dental hygiene.

Qualitative Analysis

Sixteen program directors or faculty members that teach either a stand-alone leadership course or leadership-infused curricular courses participated in the interview portion of this study. Of the 16, six interviews were conducted with program directors or faculty members of hybrid programs, nine interviews were conducted with program directors or faculty members of leadership-infused programs, and one interview was conducted with a faculty member that taught a stand-alone leadership course. Efforts were made to identify the extent of leadership taught in the programs that offered stand-alone leadership courses,

but most directors/instructors did not respond or would not consent to an interview. Six program directors interviewed were doctoral-prepared, five program directors were master's-prepared, three faculty members were doctoral-prepared, one faculty member was master's-prepared, and one faculty member was baccalaureate-prepared. The mean average for teaching a stand-alone leadership course or in a leadership-infused program was six to ten years.

The common themes that became evident when synthesizing the content of the interviews included the inadequate measurement of competency of leadership skills, the barriers to incorporating a stand-alone leadership course within curriculum, beneficial changes to existing degree completion curricula, enhancements for the future of degree completion programs, and how well leadership-infused curricula and hybrid program curricula prepared graduates for roles in leadership. Of the program directors and faculty members that taught a leadership-infused curriculum, seven interviewees stated their institutions did not have formal competencies related to leadership in their respective curriculum and their programs measured leadership competency inadequately. One program director of a leadership-infused program stated, "*I'm not sure we measure leadership competency. It is difficult to tangibly measure*." A program director of a hybrid program responded, "*This is a difficult question to answer, other than in discussions and course modules to assess competency*."

Barriers to incorporating a stand-alone leadership course into an existing leadership-infused curriculum included the lack of qualified educators to teach the course, the number of credits in a given curriculum, and the availability of

faculty to teach due to work overload. *"The curriculum process-if we put something in, we have to take something out. What do you take out? There are a limited number of hours that must be followed and it may not be approved,"* affirmed one program director of a leadership-infused program. One faculty member responded, *"We do not have qualified educators (leadership certification or training) to teach a leadership-specific course. Something (course) would have to be eliminated from the program to incorporate leadership; our degree completion program needs to mirror the entry-level program."*

Beneficial changes to existing curriculum included adding a stand-alone leadership course, a communications course (to encourage leadership, conflict management, how to influence people), or management course to leadership-infused curriculum. Other changes included curriculum reviews and an emphasis area on leadership, similar to the education or public health emphasis many degree completion programs offer. *"A leadership focus would be a great marketing tool for enrolling future students,"* suggested one faculty member who teaches an advanced practice management course.

Suggestions made by interviewees for enhancements for the future of degree completion programs included incorporating an internship or practicum, a certification in leadership, creating equality among degree completion programs by the development of competencies for degree completion programs, and including leadership into the CODA Standards for entry-level programs. *"There isn't much equality in degree completion programs. Stand-alone leadership courses are not offered in every program. Competencies for degree completion*

programs that have a concentration on leadership skills would help," stated one faculty member of a hybrid program. Another faculty member of a leadership-infused program echoed, *"Leadership needs to be required by CODA standards, part of entry-level so that it can be mirrored in degree completion programs."* A non-dental hygiene faculty member suggested, *"Don't put off leadership to master's level students, leadership needs to be earlier in the student's education."*

A question was asked to all interviewees if they thought a stand-alone leadership course adequately prepared degree completion students for roles in leadership. As a follow-up question, interviewees were asked if their respective programs prepared graduates for roles in leadership. All interviewees responded that while stand-alone leadership courses are beneficial, they are foundational and the skills taught in stand-alone leadership courses must be built upon throughout the curriculum. Three of the interviewees of the leadership-infused programs felt that their programs prepared graduates for leadership roles, but the programs could offer more leadership opportunities. All interviewees of the hybrid programs agreed that a stand-alone course in addition to leadership-infused throughout the curriculum adequately prepared graduates for leadership roles. A faculty member of a stand-alone leadership course added, *"Leadership requires more long term opportunities, but a stand-alone course gives them the foundational skill sets."*

Discussion

This study expanded the initial study performed by Portillo et al.[8] with regard to leadership education in degree completion programs. The findings of this study demonstrated that leadership education is taught in some, but not all degree completion programs. While a stand-alone leadership course may provide degree completion students with foundational leadership knowledge, these principles must be integrated throughout degree completion curricula. With the majority of these programs offered in a distance learning format, a strong focus on communication and emotional intelligence skills were evident.

In leadership-infused curricula, professional development, advocacy, and integrity were lacking in several programs. Concepts such as lifelong learning, social responsibility, ethics and trustworthiness, and advancing the profession must be added to institutional competencies to ensure that these skills are being addressed. Hybrid programs incorporated all aspects of leadership within their respective curricula. Professional development, integrity, and advocacy were integrated throughout these curricula.

What is necessary to ensure all leadership skills are being taught in degree completion programs is a more consistent approach to educating students. Similar to the competencies for graduate education created by ADHA and the American Dental Education Association, competencies for degree completion programs could create consistency among these programs. Further discussions and development must be done for competencies to be created.

This study is not without limitations. One limitation of this study included that only one faculty member that taught a stand-alone leadership course agreed to participate in the interview portion of the study; however, five program directors provided course syllabi for the quantitative portion of the study. With no responses or agreements to participate in the interview portion of the study, this one interview may not be representative of all stand-alone leadership courses. Another limitation was personal bias. The interviewer maintained neutrality and did not offer personal perceptions to influence the respondents to minimize bias. With data collected being dependent on the interviewee's knowledge, interviews were audio recorded and transcribed later, thus allowing the interviewee the opportunity to review the transcribed notes to ensure accuracy and correct misinformation. With a relatively small sample size for this qualitative study, the level of saturation was reached with a smaller number of participants and considered representative of the group.

Conclusion

The dental hygiene profession is at a crossroad. For the dental hygiene profession to advance and meet the growing oral health needs of the public, leadership skills must be taught and then developed once graduates are working in the profession. Professional development, integrity, and advocacy are among the areas needing further development in degree completion programs. This study showed that a need exists for consistency in degree completion programs for teaching leadership skills. Formal competencies targeting quality leadership

skills are paramount to prepare dental hygiene graduates to utilize these skills necessary to serve in leadership roles and promote the profession.

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Tables

Table 1: Sample Course Syllabi Matrix Template

Program	Course name (if applicable)	Measurement of leadership skills	Course or Program Competencies (if available)	Expected Outcomes	Leadership Project	Communication (oral and written communication)	Professional Development (role modeling, mentoring, lifelong learning, social responsibility)	Emotional Intelligence (critical thinking/decision making, problem solving)	Integrity (ethics and trustworthiness)	Advocacy (advancing the profession, involvement in assocation)	Leadership theory/text	Other leadership courses offered (if applicable)	Outliers
SA-D	Leadership and Group Dynamics	Discussion postings, assignments, leadership project, quizzes, midterm, final exam	motivate others to become effective leaders	apply leadership and theory principles in collaborative interprofessional activities that promote oral health	yes, project involved starting something new or making changes in how something is being done or both.	written papers, assignments	culturally competent care for diverse populations in a global community, apply leadership and theory principles in collaborative interprofessional activities that promote oral health	critical thinking, problem solving	listed in the core themes supported by this course but not listed specifically in the syllabus	through leadership project	yes, Kouzes and Posner The Leadership Challenge & The Leadership Challenge Workbook		
HY-D	Advanced Community Oral Health	participation, written assignments, quiz, final written project & PPT		achieve familiarity with various components of public health system, acquire awareness of the importance of the evolution of evidence-based public health programs		written assignments, PPT presentation	social responsibility	critical thinking, problem solving, EB decision making		workforce models	N/A	Dental Hygiene Practice Management, Contemporary Issues In Dental Hygiene, Methodology & Leadership	Public Health focus
LI-A (one syllabi but info given through interview)	Management Communications	exams, writing assignments/reports, team projects/presentations, individual oral presentations, participation	No formal competencies on leadership; assess learning outcomes annually, assess critical thinking/problem solving	explain the communication process; identify the elements of a strategic communication campaign; employ strategic decsion making in developing communciations for diverse audiences; construct sound arguments based on reliable evidence and on audience analysis	No	communication, communication process, strategic communication, written assignments, presentations, team communication, interpersonal skills, conflict resolution, collaboration, negotiation skills	professional competence,	critical thinking, problem solving, project management, EB decision-making		one unit within internal communication unit-advocating for change	N/A/Magerial Commuicatios: Strategies and Applications	Dental Hygiene Teaching Methods, Management Communications, Professional Writing, Current Issues in Dental Hygiene, Legal and Ethical Isssues in Healthcare	managerial course focused on communication and critical thinking

Table 2: Interview Questions for Program Directors/Faculty Members

Questions for Program Directors/Faculty Members Teaching a Leadership-Infused Curriculum	1. What year did your degree completion program begin? 2. What does your institution define as "leadership-infused"? 3. How long has this leadership-infused curricula been offered at your institution-since the inception of the program or after the program had been around for years? 4. What courses in your program infuse leadership within the content? 5. What leadership skills are taught in these courses? 6. How is leadership incorporated within your curriculum? 7. How do you measure competency of leadership skills taught within your program? 8. Does your program require a leadership project? If so, please describe the leadership project students must complete in your course. What is the specific objective of this project? 9. Does your program offer a stand-alone leadership course within the leadership-infused curricula? If so, what is the name of the course? If not, why does your program not offer a stand-alone course? 10. What barriers exist regarding the incorporation of a stand-alone leadership course? 11. What changes do you think would be beneficial to your program's curricula to better prepare graduates for roles in leadership? 12. Do you think your program's leadership-infused curriculum prepares graduates for leadership roles within the dental hygiene profession? Why or Why not? 13. Based on your experience, what can be done to enhance leadership skills taught in dental hygiene degree completion programs? 14. Does your program offer exit surveys or interviews? 15. Do you know of leadership roles that students have achieved since graduating?

Questions for Program Directors/Faculty Members Teaching a Stand-Alone Leadership Course	1. What year did your degree completion program begin? 2. What is the title of the leadership course that you teach/offer? 3. How long has this course been offered at your institution-since the inception of the program or after the program had been around for years? 4. Why was the stand-alone leadership course added to your program? 5. What leadership skills are taught in this course? 6. Do you have a required text for this course? If so, what is the title(s) of the required text? 7. How is leadership incorporated within your curriculum? 8. How do you measure competency of the leadership skills taught in your course? 9. Does your course require a leadership project? If so, please describe the leadership project students must complete in your course. What is the specific objective of this project? 10. Are leadership skills taught in other courses within your program's degree completion program? If so, which courses? If not, why do you think leadership skills are not being taught in these courses? 11. How does your program's stand-alone course prepare graduates for leadership roles within the dental hygiene profession? 12. Do you believe a stand-alone leadership course is enough to prepare dental hygiene graduates for leadership roles? Why or Why not? 13. What barriers exist regarding the infusion of leadership concepts throughout your program's curriculum? 14. What changes do you think would be beneficial to your program's curricula to better prepare graduates for roles in leadership? 15. Based on your experience, what can be done to enhance leadership skills taught in dental hygiene degree completion programs? 16. Does your program offer exit surveys or interviews? 17. Do you know of leadership roles that students have achieved since graduating?

Table 3: Formal Competency Statements by Program Type

Type of Program	Formal Competencies
Leadership-Infused	➢ Assume leadership responsibility and accountability for decisions and actions based on intrapersonal values, ethical and legal obligations, standards of practice, and resources. ➢ Employ interpersonal and technological communication strategies that enhance the quality of professional relationships. ➢ Apply critical thinking and analysis to interpret information, understand and define a problem, consider several viewpoints, and reach supported conclusions. ➢ Provide community oral health education/dental hygiene services in a variety of settings. ➢ Advancement of the profession through affiliations with professional organizations as well as through community service activities. ➢ Provide care to all individuals, without discrimination, using humane, empathetic, and caring approach for all patients. ➢ Assume responsibility for lifelong learning.
Hybrid Programs	➢ Provide the student with fundamental knowledge regarding leadership theories and principles. ➢ Actively and critically reflect upon the nature of leadership and collaboration both personally and professionally. ➢ Articulate one's own professional philosophy about leadership in the educational setting. ➢ Articulate a general understanding of the rules and regulations set in place to oversee the profession. ➢ Differentiate between professional and occupational models of dental hygiene. ➢ Evaluate leadership styles for application in practice. ➢ Plan how to implement leadership skills in practice to be able to use concepts of leadership in a variety of roles and settings.
Stand-Alone Course	➢ Articulate a personal purpose for exercising leadership. ➢ Reflect the ethics, values, skills and knowledge integral to all aspects of each of the allied dental professions. ➢ Apply the ADHA code of ethics in all professional endeavors. ➢ Adhere to state and federal laws, recommendations, and regulations in the provision of oral health care. ➢ Apply leadership theories, concepts, and principles to get extraordinary things done as leaders whether in private practice or in the community, an employee or volunteer ➢ Motivate others to become effective leaders.