ISSUES ASSOCIATED WITH DEVELOPING A DENTAL HYGIENE BACCALAUREATE COMPLETION PROGRAM IN FLORIDA

By

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To my daughter, Arielle Maria Thomas:
May you see that everything worth having is worth working hard for,
May you learn that everything I have sacrificed I have sacrificed to make a better life for you,
May you know that, in spite of everything, I love you with all my heart, mi corazón de melón.
AriMari: my legacy to the world.
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ISSUES ASSOCIATED WITH DEVELOPING A DENTAL HYGIENE BACCALAUREATE COMPLETION PROGRAM IN FLORIDA

By

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The American Dental Hygienists’ Association (ADHA) and the American Dental Education Association (ADEA) supported the notion that the baccalaureate degree should be the entry-level degree for the dental hygiene profession. There was also clear evidence that there was a national shortage of baccalaureate-earned-minimum dental hygiene educators. Fourteen Florida dental hygiene program directors (seven state college, seven community college) completed a survey to obtain data on the status of dental hygiene faculty shortages in Florida and perceptions on possible future educational needs for faculty. This study examined whether there were any differences in responses according to institutional setting. All three null hypotheses were rejected due to there being no statistically significant differences in all fourteen Florida dental hygiene program directors’ responses to the survey.
CHAPTER 1
INTRODUCTION AND STATEMENT OF THE PROBLEM

Introduction

For over a century, dental hygienists have played a critical role in meeting the nation’s oral health needs. In 1907, dental hygiene was legally recognized in Connecticut as an adjunct to dental practice, and in 1916, Connecticut passed legislation specifically describing the practice of dental hygiene. Thirty-four states followed Connecticut by 1935. By 1951, practice acts of all states, as well as the District of Columbia and the Commonwealth of Puerto Rico, included provisions for dental hygiene practice (Haden, Morr, & Valachovic, 2001).

In 1945, sixteen dental hygiene programs were in existence. In 1947, the American Dental Association (ADA) Council on Dental Education, now the Commission on Dental Education, adopted the first accreditation standards for dental hygiene programs (Haden et al, 2001). The number of new programs grew dramatically and by 1974 there were 158 dental hygiene programs. In 2001 there were 255 dental hygiene education programs (Haden et al, 2001). In 2009, there were 309 entry-level dental hygiene programs in the United States (American Dental Hygienists’ Association, 2009b).

Dental hygiene educators were officially recognized as a constituency in the American Association of Dental Schools (AADS) in 1967 when the AADS House of Delegates revised the Association’s bylaws to create a membership classification for dental hygiene education (Haden et al, 2001). This official recognition of dental hygiene education meant that dental hygiene educators received a voice in the Association’s policy-making activities by virtue of their presence in the AADS House of Delegates. In 2000, the AADS House of Delegates voted to change the name of the Association to the American Dental Education Association. The new name more accurately reflected the breadth of its constituencies. The Association’s Council on
Sections included dental hygiene education and this section was the largest section with over 500 members (Haden et al, 2001).

According to the Commission on Dental Accreditation (CODA) (2010), a dental hygiene program must be staffed by a core of well-qualified full-time faculty who possessed a baccalaureate or higher degree. In recent years it had become increasingly apparent that the United States was facing a faculty shortage situation in dental hygiene education. From 1990 to 2005 there was a stagnation of instructor and assistant professor ranks which was attributed to either the scarcity of new faculty entering dental hygiene education or the short duration of new faculty careers in dental hygiene education (Collins, Zinskie, Keskula, & Thompson, 2007a; Darby, 2004; Palmer, 2003). It had become progressively more difficult to hire qualified faculty as the majority of dental hygiene programs graduated students with an entry-level associate degree (American Dental Hygienists’ Association, 2009).

Both ADEA and the American Dental Hygienists’ Association (ADHA) supported the notion of the baccalaureate degree becoming the entry-level degree for the dental hygiene profession. There was also clear evidence that there was a national shortage of baccalaureate-earned-minimum dental hygiene educators. In 2010, Florida had eighteen CODA-accredited dental hygiene programs. There was one baccalaureate degree-completion program located within Florida, and no Master of Science in Dental Hygiene program. This study sought to examine the challenges associated with implementing a four-year dental hygiene baccalaureate degree-completion program in Florida. Florida dental hygiene program directors completed a survey to obtain data on the status of dental hygiene faculty shortages in Florida and perceptions on possible future educational needs for faculty. The results of this study assisted the dental hygiene program directors of all eighteen programs to determine the need for faculty
professional development and/or curriculum changes to facilitate faculty earning of baccalaureate and/or master’s degrees. The results also assisted dental hygiene program directors in determining whether their programs were prepared to establish a dental hygiene baccalaureate degree-completion program had the need arose.

**Statement of the Problem**

In 2009 there were 309 entry-level dental hygiene programs in the United States. Of these, 267 programs offered associate degrees as the terminal degree, while 44 programs offered the Bachelor of Science in Dental Hygiene as the terminal degree. There were no Bachelor of Science in Dental Hygiene programs located in Florida. Of sixty baccalaureate degree-completion (Bachelor of Applied Science in Dental Hygiene) programs in the United States, one was located in Florida (St. Petersburg College). Nationally, fourteen dental hygiene programs offered the Master of Science in Dental Hygiene. There were no Master of Science in Dental Hygiene programs located in Florida (American Dental Hygienists’ Association, 2009b).

Given the national push by the American Dental Hygienists’ Association (2007) and the American Dental Education Association to make the baccalaureate degree the entry-level degree in dental hygiene, Florida would have been greatly affected if these campaigns had succeeded. Accreditation standards would have changed to accommodate the new higher entry-level degree, and those changes would have been reflected in more qualified faculty needed in order for programs to remain in compliance with the new standard. In response to the anticipation of a new entry-level degree in dental hygiene, the focus of this study was to evaluate the responses of fourteen Florida dental hygiene program directors to a survey on whether they believed that a baccalaureate degree should result from a dental hygiene education program in Florida and perceptions on whether there should have been an increase in the availability of dental hygiene baccalaureate degree-completion programs in Florida and if this would have eased the difficulty
in finding qualified dental hygiene faculty, as well as determining whether those programs were prepared to establish a dental hygiene baccalaureate degree-completion program had the need arose.

**Purpose of the Study**

The baccalaureate degree as entry-level in dental hygiene was an idea that had been promoted since 1986. This study investigated the faculty needs at fourteen Florida dental hygiene programs (seven state colleges and seven community colleges) and the perceptions of those program directors on future educational needs for their faculty, and determined whether those programs were prepared to establish a dental hygiene baccalaureate degree-completion program had the need arose.

This study answered the following questions: (1) Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program? (2) Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about the need for the establishment of additional dental hygiene baccalaureate degree-completion programs in Florida? (3) Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program?

**Significance of the Study**

This study contributed to the dental hygiene literature and can be used by dental hygiene educators in a number of ways. The study investigated whether there was a difference in perceptions among Florida state college dental hygiene program directors and Florida
community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program. It examined differences in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors as to whether there was a need for more baccalaureate degree-completions programs in Florida. The study also determined whether Florida state college dental hygiene program directors and Florida community college dental hygiene program directors were prepared to establish a dental hygiene baccalaureate degree-completion program at their own institutions had the need arose.

**Delimitations**

Delimitations of the study included:

1. The study was conducted only in Florida.

2. The generalizability of the study was limited to states which currently only offer the associate degree in dental hygiene as the entry-level degree.

3. The research sample was a cohort of Florida state ($N_1=7$) and community ($N_2=7$) college dental hygiene program directors in 2010.

4. A survey was used to obtain the data. The survey was developed and tested by the lead researcher.

**Limitations**

Possible limitations of the study included:

1. Dental hygiene program directors may not have answered the survey truthfully.

2. The study captured one moment in time, and therefore the responses would have changed over time.

3. The economic and job situation in Florida during the time of the study would have affected the dental hygiene program directors’ responses.
4. The research sample \((N_1=7, N_2=7)\) was very small.

5. The survey was pilot-tested among 3 full-time dental hygiene program faculty members and one clinical supervisor from Miami Dade College, the Dean of Health Sciences from St. Petersburg College, and the Director of Baccalaureate Programs at Indian River State College.

**Assumptions**

Assumptions of this study included:

1. The dental hygiene program directors answered the questions on the survey truthfully.
2. The dental hygiene program directors were capable of objective assessment of their programs.

**Hypotheses**

The following null hypotheses were tested:

\(H_{01}:\) There was no difference in perceptions among Florida state college and community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program.

\(H_{02}:\) There was no difference in perceptions among Florida state college and community college dental hygiene program directors about the need for more dental hygiene baccalaureate degree-completion programs in Florida.

\(H_{03}:\) There was no difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program.
Definition of Terms

ASSOCIATE’S COLLEGE included institutions where all degrees are at the associate's level, or where bachelor's degrees account for less than 10 percent of all undergraduate degrees. (Carnegie Foundation for the Advancement of Teaching, n.d.)

COMMUNITY COLLEGE (FLORIDA) was a two-year college in Florida based on the traditional community college model where only associate degrees were offered.

DENTAL HYGIENE DEGREE-COMPLETION PROGRAMS were designed for licensed dental hygienists who had completed their professional education and earned a certificate or associate’s degree. The baccalaureate degree awarded through these programs was in dental hygiene or a related area (American Dental Hygienists’ Association, 2009a).

DENTAL HYGIENE ENTRY-LEVEL PROGRAMS prepared graduates for the clinical practice of dental hygiene. These included certificate, associate degree, and baccalaureate degree programs (American Dental Hygienists’ Association, 2009a).

MASTER OF SCIENCE IN DENTAL HYGIENE programs prepared graduates for careers as educators, administrators, and researchers (American Dental Hygienists’ Association, 2009a). One half of all current Master of Science in Dental Hygiene programs reported their current students were interested in teaching (American Dental Hygienists’ Association, 2008).

STATE COLLEGE (FLORIDA) was a two year college in Florida based on a new model where four-year baccalaureate degrees were also offered in addition to the associate’s degrees. The baccalaureate degrees offered were in critical need areas.
CHAPTER 2
REVIEW OF THE LITERATURE

Background of the Problem

Florida was a very geographically large, diverse state. It spanned two time zones, from Pensacola to the Florida Keys. There were twenty-eight community colleges that served its population. The degrees earned at these community colleges transferred to public, four-year universities. Before 2008, Florida’s higher education system did not include state colleges. It was comprised of public and private universities and community colleges.

In 2001, the state enacted Senate Bill No. 1162 which granted St. Petersburg Community College the ability to confer baccalaureate degrees in content areas that specifically addressed the workforce demands of private and public employers such as nursing, education, and information technology (Floyd, Falconetti, & Hrabak, 2009). The bill also renamed the college as St. Petersburg College. In 2007, the development of a state college system was recommended by a consulting group hired by the Florida Board of Governors. The recommendation was that a state college system would be a “vehicle for providing a cost-effective pathway to a baccalaureate education…and the consultants cited the advantages of community colleges conferring baccalaureates, while preserving the traditional open access mission of community colleges” (Floyd et al., 2009, p. 196). In 2008, the Florida Legislature passed into law Senate Bill No. 1716, establishing the Florida College System. The enactment of the bill designated nine of the twenty-eight community colleges as pilot state colleges that were granted the authority to offer regional and statewide baccalaureates (Floyd et al., 2009).

In order to ascertain the perceptions of dental hygiene program directors about graduate dental hygiene education and future faculty needs, Wilder, Mann and Tishk (1999) conducted a survey. Seventy-six percent of the dental hygiene programs at that time responded, for a total of
161 responses. Wilder et al found that 61 percent of the respondents had had a full-time faculty vacancy in their program between 1994 and 1996, while 27 percent had their last vacancy between 1990 and 1993. Wilder et al found that nearly one-half of the responding programs required a master’s degree for full-time tenure track faculty positions. Nearly 80 percent of program directors preferred master’s degree for full-time non-tenure track positions. At the time of her survey, just over half of the respondents believed that the number of Master of Science in Dental Hygiene programs was inadequate to meet the full-time faculty needs of dental hygiene education.

At the time of Wilder et al’s research and in 2001, eight Master of Science in Dental Hygiene programs existed. Those eight programs graduated between sixteen and twenty-four students per year, many of which pursued research or private industry positions. Wilder et al concluded, “Even if those eight accepted students to capacity, they would graduate only graduate thirty per year. Presumably, this number would not meet the faculty needs of all the dental hygiene programs” (Wilder et al, 1999, p. 481). In 2009, there were fourteen Master of Science in Dental Hygiene programs (American Dental Hygienists’ Association, 2009b).

In 1999, Harrington (as cited in Haden et al, 2001) conducted a survey of allied dental educators focused on faculty recruitment and retention in allied dental education. Two hundred and fifty-seven allied dental program directors responded, representing nearly fifty percent of all accredited allied dental education programs in the U.S. In addition, 402 allied dental faculty responded, approximately 30 percent of allied dental faculty at that time. According to Harrington’s research, the average number of full-time faculty members per program was small: four for dental hygiene. She noted that dental hygiene programs relied heavily on part-time
Harrington reported that the mean faculty age in allied dental education was forty-six years in 1998 (Haden et al, 2001).

Harrington asked respondents about the number of faculty positions available in their programs over the past five years. The average number of vacant dental hygiene positions per program was 2.09, with a total of 182 full-time positions available. Major reasons for faculty departure included retirement, relocation of a spouse or the faculty member, personal or family reasons, and promotion “up and out” (Haden et al, 2001).

In 2002, the American Dental Education Association created a Task Force on the Status of Allied Dental Faculty in order to assess the current and future anticipated needs for allied dental faculty (Nunn et al, 2004). A two-part survey was sent out to 266 dental hygiene program directors in the United States. The first part of the questionnaire was comprised of twenty-eight general questions about the current and future status of program faculty. The second part of the survey was only filled out by dental hygiene program directors that had vacant faculty position(s). The results of this survey indicated that the most common institutional requirement for full-time and part-time faculty appointment was that of a baccalaureate degree (Nunn et al, 2004). To meet the need for faculty, a number of dental hygiene programs were forced to hire faculty with less than minimum credentials while other programs redistributed workload to existing faculty in order to compensate for missing full-time and part-time faculty (Nunn et al, 2004). Sixty-eight percent of the responding program directors stated that they would need to replace current full-time faculty members within the next five years and 73 percent of those replacements would be due to retirement.

At the time of the survey, thirty-six percent of the responding dental hygiene program directors had unfilled faculty vacancies. Faculty vacancies had been unfulfilled for a mean of
five months; the length of time the vacancies had been open ranged from 0-24 months. Fifty-seven percent of the unfilled dental hygiene positions were for part-time faculty. Program administrators’ positions accounted for 10 percent of dental hygiene vacancies. New positions accounted for 23 percent of dental hygiene vacancies. In the majority (seventy-one percent in dental hygiene) of the responding programs, the search was currently active at that time. The primary reason cited for the faculty positions remaining vacant was lack of qualified applicants (thirty-eight percent) (Nunn et al, 2004).

The results of this survey were clear: there was in fact not only a faculty shortage, but the dearth of qualified faculty would likely be of critical proportions in the very near future. The challenge now was to deal with the issue in practical ways that would alleviate the shortage without diluting the necessary academic rigor of dental hygiene education. There appeared to be many challenges in recruiting faculty with necessary and desired academic credentials. Even the historic 2000 document, *Oral Health in America: A Report of the Surgeon General*, noted that there was a “worrisome shortfall in the number of men and women choosing careers in oral health and education and research.”

At the thirty-third annual American Dental Education Association National Dental Hygiene Program Directors’ Conference in June 2000, more than 150 of the U.S. dental hygiene program directors participated in a session to envision the future of dental education and to develop strategies for moving toward this vision. One of the most prominent themes to emerge from this session was to establish higher levels of academic credentials for the practice of dental hygiene. Some program directors suggested that the bachelor’s degree become the point of entry into dental hygiene. To accomplish this, it was acknowledged that more degree completion
programs would need to be created, as well as an increase in faculty with master’s degrees and
doctorates (Haden et al, 2001).

The entry-level dental hygiene accreditation standard had remained unchanged over the
last six decades, even while the academic knowledge base, theory, techniques, and technology
that students must acquire had expanded considerably. The American Dental Hygienists’
Association (ADHA) adopted a policy in 1986 supporting all levels of dental hygiene education,
but declared the intent to establish the baccalaureate degree as the minimum entry-level
requirement for dental hygiene practice of the future (American Dental Hygienists’ Association,
2009c). To explore the range of viewpoints about the issues of the baccalaureate degree as the
entry-level degree in dental hygiene, a survey was developed in 2008 by the American Dental
Education Association’s Council of Allied Program Directors Task Force. Three hundred dental
hygiene directors of CODA-accredited programs were invited to complete it. The response rate
was 58 percent. Three-quarters of all respondents found it “important” (50 percent) or
“somewhat important” (26 percent) to advance entry-level educational requirements for dental
hygiene practice to a bachelor’s degree, while more than half of all respondents (54 percent)
agreed and nearly one-quarter (23 percent) somewhat agree that those completing dental hygiene
programs should be required to earn baccalaureate degrees. The majority of all respondents (62
percent) agreed or strongly agreed that new educational models need to be created that
incorporate both two-year and four-year schools (Okwuje, Anderson, & Hanlon, 2010). These
results echoed the strong emphasis at the June 2000 ADEA Dental Hygiene Program Directors
Conference.

Dental Hygiene

The clinical practice of dental hygiene had changed dramatically from its inception in
1913. It consisted of a scope of functions, varying in complexity, that had been formally termed
traditional and expanded. Yet, the educational process for preparing a dental hygienist had not expanded in length from the time the American Dental Association began accrediting programs in 1952. The professional community had, however, recognized and added more than 20 expanded functions to the scope of practice and altered supervisory conditions from jurisdiction to jurisdiction without requiring additional time for the hygienists’ preparation (Wayman, 1985). The entry-level accreditation standard had remained unchanged over the last six decades, while the academic knowledge base, theory, techniques, and technology that students must acquire had expanded considerably.

Presently, the majority of students attended college to meet program admission requirements before entering a dental hygiene program. This was the case whether they planned to enter a two- or four-year college program. According to the most recent American Dental Association (ADA) survey of allied dental education (2008), fifty percent of programs indicated that graduation from high school or less than one year of college was the prerequisite admission requirement for entering the program, while 32 percent required one year of college and 11 percent required two years of college. In terms of actual college experience of students entering a dental hygiene program, 91 percent of students had one or more years of college, including 77 percent who had two or more years of college.

Since the implementation of the first accreditation standards, the number of dental hygiene programs had increased. While the majority of programs in 1950 were housed in four-year colleges and universities or dental schools, the majority were now found in two-year college settings. However, the average number of credit hours required for graduation from an associate dental hygiene program was ninety credits (approximately three academic years); this included college level admission requirements and actual program requirements. This average number of
credit hours was twenty to thirty hours beyond the number typically required at the associate degree level in other disciplines and thirty credit hours below the number required to achieve a typical bachelor’s degree (American Dental Hygienists’ Association, 2008). In 1986, the American Dental Hygienists’ Association (ADHA) adopted a policy supporting all levels of dental hygiene education, but declared an intent to establish the baccalaureate degree as the minimum entry-level requirement for dental hygiene practice of the future (American Dental Hygienists’ Association, 2009c).

In 2008, the American Dental Education Association (ADEA) and the ADEA Council of Allied Dental Program Directors surveyed 300 allied program directors and asked them to share their perspectives, opinions, and experiences on educational requirements for dental hygienists and other issues, including two key policy issues: “Importance of advancing the entry-level educational requirement for dental hygienists to a bachelor’s degree” and “A bachelor’s degree should result from a dental hygiene education program.” Survey respondents included dental hygiene program directors from community college and four-year college educational settings. The response rate was 58 percent (n=175) (Okwuje, et al, 2010).

The majority of the respondents (56 percent) were located in community college settings (two-year educational settings), while a university or four-year college was the setting for 28 percent. Nearly 85 percent of respondents indicated that, at the completion of their dental hygiene program, an associate degree could be granted, and 18 percent granted baccalaureate degrees in dental hygiene.

Three-quarters of all respondents found it “important” (50 percent) or “somewhat important” (26 percent) to advance entry-level educational requirements for dental hygiene practice to a bachelor’s degree. However, there was a difference in responses according to the
educational setting in which the respondent works. While nearly all those in four-year settings selected “important” or “somewhat important” for this variable, only two-thirds in community college settings felt that way. More than half of all respondents (54 percent) agreed and nearly one-quarter (23 percent) somewhat agreed that those completing dental hygiene programs should be required to earn baccalaureate degrees. Again, there were differences between respondents according to educational settings, with those in four-year settings twenty-five percentage points higher in terms of agreement with the statement.

Considering all responses to the survey, the majority of all respondents supported advancing the entry-level educational requirement for dental hygiene practice to the bachelor’s level and requiring those completing dental hygiene programs to earn baccalaureate degrees. These responses echoed a strong emphasis at the June 2000 Annual National ADEA Dental Hygiene Program Director’s Conference on degree programs, as well as suggestions that a bachelor’s degree become the point of entry into dental hygiene (Haden, et al, 2001). This sentiment was again confirmed at the 2006 ADEA Summit on Allied Dental Education (American Dental Education Association, 2007). However, there were significant differences within these opinions, dependent on the educational setting of the respondent. While the majority of all respondents were located in community colleges, overall positive support for these issues was due in large part to the very high percentage of respondents from four-year institutions who favored them.

Other survey findings indicated that respondents from dental hygiene programs with educational requirements for admission that included more college courses were more likely to agree that a baccalaureate degree should result for the education received. The report noted that while 11 percent of dental hygiene programs required two years of college prior to entering the
dental hygiene program, over three-quarters of students entering dental hygiene programs did so with greater than two years of college already completed. Study recommendations included additional analysis to probe the level of support for a baccalaureate degree as related to the actual number of years of college with which dental hygiene students entered programs. Doing this would have provided an additional level of understanding as to opinions on the academic recognition that dental hygiene students received upon graduation. Current and future oral health care needs must be addressed by well-qualified and appropriately credentialed providers to meet the oral health care needs and challenges of the future (Okwuje, et al, 2010).

The need for dental hygienists with a baccalaureate degree was demonstrated by the 1) desire to advance the profession, 2) demand for dental hygiene faculty, 3) responsibility to address the oral healthcare needs of the nation, and 4) need for expanded dental hygiene research. In 2005, the American Dental Hygienists’ Association report entitled “Dental Hygiene: Focus on Advancing the Profession” provided a framework for dental hygiene education and practice. ADHA’s vision in this document included “implementing the baccalaureate degree as the entry point for dental hygiene practice” (p. 18). Requiring a baccalaureate degree as entry-level for dental hygiene would have provided opportunity to prepare graduates for alternative career opportunities in education, administration, public health, and research, without overcrowding the curriculum. The failure to standardize entry level at the baccalaureate level had an adverse impact on the pace of development of advanced dental hygiene programs and the continued development of the dental hygiene body of knowledge. Given that some other professions and allied health professions have already moved beyond the baccalaureate degree as the entry to practice, dental hygiene must plan for the advanced degree as the entry to practice in

As the current number of dental hygiene programs was examined, it became apparent that the demand for educators across the nation was strong. Nunn and colleagues (2004) found that 68% of dental hygiene faculty needed to be replaced within the next 5 years, primarily due to retirement. The predicted outcome of faculty shortages in dental hygiene impacted the number of graduates, thus impacting the oral health of the United States. Students who graduated with a baccalaureate degree were further prepared for advanced education such as a master or doctoral level degree. The limited number of dental hygiene programs offering baccalaureate degrees combined with the demand for further education emphasized the need for more research examining interest in degree completion in the United States and desired educational venues.

Numerous articles had reported that there was a national shortage of dental hygiene educators (Collins, et al, 2007a; Collins et al, 2007b; Gancarz-Gojgini & Barnes, 2007; Darby, 2004; Haden, et al, 2001; Henson, et al, 2008; Holt & Mitchell, 2009; Leonard, 2009; Monson & Engeswick, 2007; Nunn, et al, 2004; Palmer, 2003; Rowe, Massoumi, Hyde, & Weintraub, 2008; Siladie, 2007). For numerous years there had also been a call to establish the baccalaureate degree as the entry-level degree in dental hygiene (American Dental Hygienists’ Association, 2009c; Anderson & Smith, 2009; Gluch-Scranton & Gurenlian, 1985; Haden, Morr, & Valachovic, 2001; Okwuje, Anderson, & Hanlon, 2010; Wayman, 1985). In 1986, the American Dental Hygienists’ Association adopted a policy supporting all levels of dental hygiene education, but declared an intent to establish the baccalaureate degree as the minimum entry-level requirement for dental hygiene practice of the future. But how will this be accomplished? A
look at other professions and how they advanced their entry-level degrees to higher degrees offered some insight.

**Occupational Therapy**

Since the early 1960’s when the first entry-level master’s program was offered, two points of entry for occupational therapy education had existed: the baccalaureate and the master’s. In 1999, the doctoral entry-level degree was established. In 1997, the Commission on Education task force on entry-level education articulated eight reasons for moving to post-baccalaureate education (Coppard, et al, 2009). These reasons were:

1. Occupational therapists and new graduates must demonstrate and unprecedented need for advanced clinical reasoning.
2. New graduates must define and demonstrate the uniqueness of occupational therapy.
3. New graduates must view themselves and function as autonomous practitioners.
4. The environment showed readiness to move to post-baccalaureate education.
5. Postbaccalaureate education will better prepare therapists to conduct outcomes research and serve on interdisciplinary teams.
6. Many graduates of baccalaureate programs have received the bachelor’s degree that was equivalent to a master’s-degree-level education.
7. Postbaccalaureate education would assist in clarifying the role between ‘professional and technical education.’
8. Postbaccalaureate education is in keeping with trends in related fields. (p. 30)

At its April 1998 meeting, the Accreditation Council for Occupational Therapy Education (ACOTE) adopted the following position statement regarding the draft accreditation standards: *Given the demands, complexity, and diversity of contemporary occupational therapy practice, ACOTE’s position is that the forthcoming educational standards are most likely to be achieved in post-baccalaureate degree programs.* At the American Occupational Therapy Association’s (AOTA) April 1999 Annual Conference & Expo, the Representative Assembly passed
Resolution J, “Movement to Required Postbaccalaureate Level of Education.” This resolution called for the eventual installation of a postbaccalaureate requirement for entry-level occupational therapy education. After an exhaustive evaluation of the short- and long-term impact of the decision to move to postbaccalaureate-degree entry, ACOTE voted at its August 1999 meeting that professional entry-level occupational therapy programs must be offered at the postbaccalaureate level by January 1, 2007 to receive or maintain ACOTE accreditation status (American Occupational Therapy Association, 2009).

In August of 2004, ACOTE voted to transition from accreditation of occupational therapy educational programs to accreditation of occupational therapy program degree levels, effective January 1, 2005. Any institution adding a new degree level or changing the current occupational therapy degree level was required to apply for and receive formal accreditation status for that degree level prior to the admission of students into the program (American Occupational Therapy Association, 2009).

In August 2006, ACOTE formally adopted new Accreditation Standards for Master’s-Degree-Level Educational Programs for the Occupational Therapist and new Accreditation Standards for Educational Programs for the Occupational Therapy Assistant. In December 2006, ACOTE formally adopted Accreditation Standards for a Doctoral-Degree-Level Educational Program for the Occupational Therapist. An effective date of January 1, 2008, was established for all sets of 2006 ACOTE Standards (American Occupational Therapy Association, 2009). Occupational therapy had maintained two points of entry into the profession. This attracted students who were not able or did not desire the additional time and financial obligation of an entry-level doctorate, but wished to enter a health care profession. Both degree programs prepared graduates to be entry-level practitioners. By supporting both master’s and doctoral level
programs, students had the option to choose which level of education best met their needs and resources (Coppard, et al, 2009).

**Physical Therapy**

Originally designed as 9-month post-baccalaureate certificate programs, physical therapist education had evolved over the last 80 years to its current design: programs that culminate in the awarding of a post-baccalaureate degree. The evolution from certificate programs to baccalaureate programs occurred over the years between 1928 and 1970. Graduate programs offering master’s degrees developed in the late 1960s; by 2002, all programs culminated in a postbaccalaureate degree (American Physical Therapy Association, 2009). Effective January 1, 2002, the Commission on Accreditation for Physical Therapy Education (CAPTE) no longer accredited baccalaureate level professional education programs. In addition, the CAPTE handbook stated in Part CC-7 that: "The institution awards the Doctor of Physical Therapy (DPT) as the first professional degree for physical therapists at completion of the program. [PROVISO: CAPTE will begin enforcing this criterion effective December 31, 2015. Consistent with CAPTE’s expectation that all programs must come into compliance within two years of being determined to be out of compliance, programs that do not meet this criterion as of December 31, 2015, will be required to come into compliance no later than December 31, 2017."

As of February 2010, there were 212 (96%) accredited physical therapist professional degree programs (American Physical Therapy Association, 2010).

This evolution occurred in response to changing expectations for graduates resulting from significant changes in practice. Two separate studies of DPT programs, as well as data collected in the Biennial Accreditation Report, indicated that, in the main, programs converting to offering the DPT were making important, substantial changes. Among them were:
• Increased content in areas such as diagnostics, imaging, pharmacology, advanced practice skills (manual therapy, pediatrics, geriatrics), basic sciences (histology, pathology), business practices, and health promotion.

• Changes in educational processes: evidence-based practice, case-based activities, and emphasis on clinical decision-making.

• Changes in the clinical education component such as increased hours, longer rotations, and more roles.


Members of the physical therapy academic and clinical communities had identified the following benefits, among others, for the DPT as the entry-level degree:

• Professional (entry-level) DPT programs more accurately reflect the scope, depth, breadth, and rigor of the high-quality education preparation needed for current and future practice;

• The professional (entry-level) DPT program offers a sound educational background that should better equip the graduate to enter clinical practice able to examine, evaluate, diagnose, prognose, and intervene in the management of impairments, functional limitations, and disabilities of the cardiopulmonary, musculoskeletal, neuromuscular, and integumentary systems;

• The DPT degree will better facilitate the consumer's recognition of the physical therapist as a fully autonomous health care practitioner who is a point of entry into the health care system;

• The DPT degree will better facilitate interactions with medical colleagues on an equal basis;

• The professional (entry-level) DPT program offers greater knowledge, skills, and behaviors related to the administration and business aspects of physical therapy practice;

• Assuming an uncertain and unpredictable future, the DPT degree positions the physical therapist to advocate and negotiate more successfully on behalf of high-quality health care, the consumer, and the profession. (American Physical Therapy Association, 2010, p. 2)

By establishing the DPT as the entry-level degree in physical therapy, the quality of physical therapy services and patient care was enhanced, the granting of pervasive direct access
and "physician status" for reimbursement was hastened, and the profession's continued growth, maturation, and services was ensured.

**Physician Assistant**

The issue of a standardized degree requirement for the physician assistant (PA) profession continued to be a hot topic of debate. The rapidly changing healthcare environment, the expanding role for PAs in the delivery system and the proliferation of PA programs had renewed the interest among PA leaders to reevaluate this issue and develop recommendations that would guide the profession through this time of professional evolution. In 1999, a resolution was submitted to the American Academy of Physician Assistants’ (AAPA) House of Delegates requesting the "AAPA to promote the requirement that all accredited PA programs confer a minimum of a bachelor’s degree on graduation." The AAPA policy in 1999 endorsed “the baccalaureate degree as the current minimum degree for physician assistants and encourages all physician assistants to possess a minimum of a baccalaureate degree” (American Academy of Physician Assistant, 1999).

Movement toward advancing the academic degrees associated with PA education first occurred in the 1980’s when university-based programs began offering a master’s degree. Between 1993 and 1997, 13 of the 45 (28.9%) new programs (either provisionally or initially) accredited by the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA) offered a master’s degree (American Academy of Physician Assistants, 1999). In 2007, the AAPA House of Delegates adopted a new policy: “AAPA recognizes that PA education is conducted at the graduate level and supports awarding the masters degree for new physician assistant graduates” (American Academy of Physician Assistants, 2010).

In 2009, there were 148 accredited physician assistant programs. Of these, 120 programs offered a master’s degree, 21 programs awarded a bachelor’s degree, 3 programs awarded an
associate degree, and 4 programs offered the PA certificate (American Academy of Physician Assistants, 2009). Although the ARC-PA had not yet adopted a rule that establishes the master’s degree as the entry-level degree, accredited programs were clearly moving in that direction.

**Nursing**

Not all professions had been successful in changing the entry-level degree to a higher one. One profession which had been unsuccessful in this endeavor is nursing. The move to university education for most professions occurred in the early decades of the 20th century. The first official nursing school in a university was established in 1909 at the University of Minnesota, and by 1920, 180 schools of nursing reported having college affiliations. Sigma Theta Tau, nursing’s honor society, was founded at Indiana University with the expectation that the baccalaureate degree was to be required for entry into practice (McBride, 1996).

In 1964, the Comprehensive Nurse Training Act was signed into law, and it was within this framework that the American Nurses Association (ANA) undertook the study and examination of nursing practice, and the scope of preparation and responsibilities of nurses. As a result of this study, in 1965, the ANA Committee on Education prepared the association’s first position paper on education for nursing. The committee identified that nursing practice had become complex, would continue to do so, and that nursing education, like that of any other profession, should be determined by the structure of society and its prevailing values. The committee proposed that education for those who work in nursing take place in institutions of learning within the general system of education (American Nursing Association, 1965). The proposals were met with tremendous controversy within the nursing community and after years of debate and revisions, the recommendations outlined in the position paper were not adopted by the profession (Jacobs, DiMattio, Bishop, & Fields, 1998).
The ANA battled the entry-into-practice issue for more than 40 years. In 1985, the ANA issued a policy/position statement that urged state nurses’ associations (SNAs) to (1) establish the baccalaureate degree in nursing as the minimum educational requirement for licensure to practice professional nursing, (2) to retain the legal title of registered nurse for professional nurses and the associate degree in nursing as the educational requirement for licensure to practice technical nursing, and (3) to go on record as supporting the legal title of associate nurse for the technical level of nursing (American Nurses Association, 1995).

In Nursing’s Social Policy Statement, issued in 1995, the ANA agreed to declare the baccalaureate degree in nursing as the educational requirement for the registered nurse. The ANA also stated that they would develop and provide resources to assist and support SNAs in their efforts (1) to persuade nurses, educational and health care institutions, legislators, and the public of the importance of adopting this educational standard, and (2) to develop and implement strategies to facilitate nurses obtaining baccalaureate preparation in nursing to enhance their marketability in a highly competitive, restructuring health care delivery system (American Nurses Association, 1995).

The ANA maintained its position on entry into practice since the position paper in 1965. However, the ANA had been unable to mandate this requirement because of opposition from the SNAs. Many SNAs required membership in the ANA for nurses belonging to unions, and many of these nurses were graduates of associate degree in nursing (ADN) programs. In return, the ANA acted as the collective bargaining unit for these nurses. If the ANA mandated the BSN as entry into practice, they could lose the support of many SNAs. According to Aydelotte (1991), the system of nursing education today is the result of unplanned and undirected evolution, compromise, timidity, and lost opportunity! There had been some effort on the part of certain
nursing organizations to establish the baccalaureate degree as entry level into the profession, but the ANA had remained stagnant on the issue.

North Dakota was the only state that had successfully implemented the requirements of a BSN degree for entry into practice as an RN and an AND for those practicing as LPNs. This policy had been in existence since 1987. These changes were implemented through the North Dakota Board of Nursing by rewriting the regulatory rules. The new regulations included a “grandfather clause” for all practicing RNs and students who entered nursing programs before 1987. This regulation allowed these nurses to continue to practice in North Dakota regardless of their educational credentials. The students entering nursing programs after 1987 were required to be BSN prepared to practice as an RN and ADN prepared to practice as an LPN in North Dakota (Milburn & Lambeth, 1994). For more than fifteen years, these changes were successfully implemented in North Dakota. However, in 2003, a number of opposing healthcare groups successfully sponsored legislation to rescind the new educational requirements (Smith, 2010).

**Audiology**

The Doctor of Audiology (Au.D.) was the first professional degree for audiologists and was rapidly becoming the required degree for entry into the practice of Audiology in state licensure statutes, as these laws come up for review in the legislative cycle. Previously the Master’s degree was the clinical degree required for entry into the profession; however, as of late 2006, there were no longer any Master’s degree training programs for audiologists in the United States (Academy of Doctors of Audiology, 2009a; Academy of Doctors of Audiology, 2009b).

A professional doctorate was the highest post-baccalaureate degree given in a particular profession for the purpose of clinical practice. This was in contrast to the Ph.D. degree which was earned and awarded to students pursuing careers in research and academia. Ph.D. candidates might have previously earned the Au.D. degree if they were practicing audiologists.
The following was a brief history of the recent evolution of the professional doctorate in Audiology.

In 1978, the American Speech-Language-Hearing Association (ASHA) Task Force on Science discussed the need for a professional doctorate to free Ph.D. programs from becoming corrupted. In 1983 ASHA underwrote a study concluding the master’s degree did not provide adequate professional preparation and in 1984 an ASHA Task Force recommended a professional doctorate. In 1986 the ASHA Audiology Task Force recommended the Au.D. become the entry-level degree by 1998. In 1988, ADA sponsored the first Conference on Professional Education for Audiology, which called for Audiology training to move to a doctoral level. Out of this effort, in 1989 the Audiology Foundation of America (AFA) was formed with a charge to "transform Audiology to a doctoral profession with the Au.D. as its distinctive designator." In the same year, an ASHA Task Force recommended that "ASHA should strongly endorse the concept of the professional doctorate" and recommended that it should be post-baccalaureate, not a post-masters degree. In the period from 1990-1992, six independent surveys reported that the majority of audiologists supported the concept of the Au.D. degree. In 1992, the ASHA Ad Hoc Committee on Professional Education recommended the Au.D. as the entry level degree to practice setting the year 2001 as a target date for implementation. Several Audiology related professional organizations (RPO’s) called for ASHA to facilitate Au.D. degree development and implementation (Academy of Doctors of Audiology, 2009a; Academy of Doctors of Audiology, 2009b).

In 1994, the AFA awarded a $25,000 grant to Baylor College of Medicine for establishing the first Au.D. program. In 1995, the AFA sponsored the Au.D. Standards and Equivalency (S&E) Conference. Numerous audiology organizations participated, including ADA. The goal of
the S&E Conference was to develop mechanisms to recognize the experiential equivalency of current practitioners and to develop standards of education for the Au.D. degree programs. In 1995, ASHA recommended a doctoral degree for entry level to practice Audiology (not necessarily the Au.D.). However, in 1997, ASHA postponed the transition to a doctoral degree as entry to the year 2012. In 1997, ADA helped AFA sponsor fellowships for Au.D. students in 4 universities. By 1998, six residential Au.D. programs were available. That same year, ADA voted to change its bylaws to require the Au.D. degree for new Fellow members by the beginning of 2001 (Academy of Doctors of Audiology, 2009a; Academy of Doctors of Audiology, 2009b).

For current practitioners who wanted to be part of this professional transition, a mechanism for earning a post-master’s Au.D. degree needed to be developed. In 1999, Nova Southeastern University began the first distance learning Au.D. program for practicing audiologists. Shortly following, the University of Florida, Central Michigan University, Pennsylvania College of Optometry and the Arizona School of Health Sciences opened up other distance learning programs for practicing audiologists. Thousands of practicing audiologists with Master’s or Ph.D. degrees earned their Au.D. degree before these transitional programs began to be phased out. In 2009, only the Arizona School of Health Sciences and the University of Florida still accepted practicing audiologists into their distance learning program (Academy of Doctors of Audiology, 2009a; Academy of Doctors of Audiology, 2009b).

In 2009, there were more than 70 programs offering a residential Au.D. degree, and efforts continued to strengthen the educational curriculum and training experience through a strong accreditation body that was independent of any membership organization (Academy of Doctors of Audiology, 2009a; Academy of Doctors of Audiology, 2009b). It was the hope of the
Academy of Doctors of Audiology that through this process (helped along with some consolidation), fewer (but more robust) professional programs would emerge to train future Doctors of Audiology.

**Summary**

An associate’s degree no longer assured that dental hygienists would prosper in our global, knowledge-based economy. Professions had to be educationally competent to earn societal trust and recognition. As a whole, dental hygienists were generally less educated than practitioners in occupational therapy, physical therapy, physician assistant, and audiology. Some allied health professions had worked to require advanced degrees for entry into practice. Advanced levels of education within the ranks of the profession increased the value of the profession to society and advanced the credibility of the profession in the eyes of the consumer. Goals such as self-regulation, direct reimbursement for services, and practice autonomy would have been more achievable if the public viewed the profession as highly educated.
CHAPTER 3
METHODOLOGY

This chapter examines the research methods used to answer three questions: Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program? Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about the need for the establishment of additional dental hygiene baccalaureate degree-completion programs in Florida? Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program? This chapter includes four sections: (a) research design, (b) study participants and rationale for selection, (c) instrumentation: Florida Dental Hygiene Program Director’s Survey, and (d) data collection. IRB approval was obtained from the University of Florida to conduct this study.

Research Design

The research design was an electronic survey instrument e-mailed to ten Florida state college dental hygiene program directors and seven Florida community college dental hygiene program directors using www.kwiksurveys.com. The survey consisted of two parts. The first part of the questionnaire, completed by all responding Florida dental hygiene program directors, was comprised of 15 general questions about the current and future status of program faculty, as well as basic program demographic questions and student program admission requirements. The second part of the questionnaire was comprised of 14 questions directed to the program directors
regarding their perceptions about dental hygiene baccalaureate degree-completion programs in Florida. The survey instrument can be found in Appendix A.

With the assistance of a statistician, all data were entered into an Excel 2010 spreadsheet program and analyzed using SAS software program version 9.2. To further explore issues beyond basic descriptive statistics, an independent samples t-test was used to compare responses between the state college dental hygiene program directors and the community college dental hygiene program directors. Since the sample size was small (N₁=7, N₂=7), the Mann-Whitney U test (Wilcoxon rank-sum test) was used to test whether the center of the data set of the state college dental hygiene program directors was the same as the center of the data set of the community college dental hygiene program directors. Fisher’s Exact Test, also used due to the small sample size, was used to compare those responses from state college dental hygiene program directors and community college dental hygiene program directors that could be placed in a 2 x 2 contingency table and tested for statistical significance. For those comparative responses that could not be placed in a 2 x 2 contingency table, Pearson’s Chi-square test was used. The α=0.05 level was chosen for significance. In this report, all data have been rounded to whole numbers.

To facilitate the t-test, Mann-Whitney U, Fisher’s Exact Test, and Chi-square test, some survey variables of interest were recoded. Institutional settings were parsed into two categories (state college and community college). Credentials required for full-time or part-time faculty appointment were divided into three categories (discipline experience, academic degree, and teaching experience). Two of these categories were further subdivided: discipline experience (1-2 years, 3-5 years, >5 years) and academic degree (associate’s, bachelor’s, master’s). Minimum number of years of education required for admission to a program was also sorted into two
categories (less than one year of college or high school diploma/GED, and one or two years of college.

Finally, responses to the questions on perceptions/opinions were recoded into 5-point scales. “Agree” was assigned a 1, “Somewhat Agree” was assigned a 2, “Neither agree nor disagree” was assigned a 3, “Somewhat disagree” was assigned a 4, and “Disagree” was assigned a 5. “Important” was assigned a 1, “Somewhat Important” was assigned a 2, “Neutral/No opinion” was assigned a 3, “Somewhat unimportant” was assigned a 4, and “Unimportant” was assigned a 5. “Greatly” was assigned a 1, “Somewhat” was assigned a 2, “Neutral/No opinion” was assigned a 3, “Slightly” was assigned a 4, and “Not at all” was assigned a 5. All recoding was done with attention to the underlying distribution of the variables.

Study Participants and Rationale for Selection

Seventeen Florida dental hygiene program directors were asked to participate in this study; ten were program directors at Florida state colleges, seven were program directors at Florida community colleges. Florida dental hygiene program directors were appropriate for this study as the focus was on the differences in the perceptions of Florida state college and community college dental hygiene program directors. Dental hygiene program directors were in the best positions to respond to questions regarding dental hygiene faculty needs and requirements within their own programs. They were also in the best position to assess the need for more dental hygiene baccalaureate degree-completion programs and whether their programs were prepared to establish a dental hygiene baccalaureate degree-completion program. Of the seventeen Florida dental hygiene program directors asked to participate, fourteen responded: seven were state college dental hygiene program directors and seven were community college dental hygiene program directors, for a response rate of 82 percent.
Description of the Sites

All seventeen dental hygiene programs in Florida were located throughout various parts of the state. The ten state colleges were: Broward College (Ft. Lauderdale), Daytona State College (Daytona Beach), Edison State College (Ft. Myers), Florida State College at Jacksonville, Indian River State College (Fort Pierce), Miami Dade College (Miami), Palm Beach State College (Lake Worth), Pensacola State College (Pensacola), Santa Fe College (Gainesville), and State College of Florida-Manatee/Sarasota (Bradenton). The seven community colleges were: Brevard Community College (Cocoa), Gulf Coast Community College (Panama City), Hillsborough Community College (Tampa), Pasco-Hernando Community College (New Port Richey), South Florida Community College (Avon Park), Tallahassee Community College (Tallahassee), and Valencia Community College (Orlando). All of the programs granted Associate of Science (A.S.) in Dental Hygiene degrees to students upon graduation. The three dental hygiene program directors who did not respond to the survey were from state colleges; these schools were Florida State College at Jacksonville, Santa Fe College (Gainesville), and Edison State College (Ft. Myers).

St. Petersburg College was excluded from this study as it was the only Florida institution that offered its students a dental hygiene baccalaureate degree-completion program (Baccalaureate of Applied Science in Dental Hygiene, B.A.S.D.H.) in addition to an Associate of Science (A.S.) in Dental Hygiene program.

Instrumentation: Florida Dental Hygiene Program Director’s Perceptions Survey

The Florida Dental Hygiene Program Director’s Perceptions Survey was a self-administered inventory designed to assess Florida dental hygiene program’s faculty status, student credit attainment, and program directors’ perceptions regarding the need for more baccalaureate-degree completion programs in Florida and if the program directors were prepared
to establish a dental hygiene baccalaureate degree-completion program at their own institutions should the need arise. Some questions used a 5-point Likert scale which reflected the response categories of “Important” to “Unimportant,” “Greatly” to “Not at all,” and “Agree” to “Disagree.” Other questions were fill-in-the-blank, Yes/No, and questions that asked the respondent to choose all applicable responses. Completion time was approximately 25 minutes.

Instrument Design

The survey instrument was designed based in part on a survey instrument designed by Collins et al (2007a), which was extrapolated from the 1999 National Study of Postsecondary Faculty (NSOPF) published by the National Center for Education Statistics. Other questions were extrapolated from the survey instrument used in the November 2008 ADEA Dental Hygiene Program Directors’ Survey (Okwuje et al, 2010).

A formal pilot-testing of the survey was conducted, using three current full-time dental hygiene faculty members and one dental hygiene clinical supervisor at a state college, the Dean of Health Sciences from St. Petersburg College, and the Director of Baccalaureate Programs from Indian River State College. Some of the questions on the survey were also previously tested by considering the previous validation of the NSOPF items during the 1993 and 1999 cycles by Abraham et al. (2002) and Selfa et al. (1997). This study began after receiving approval from the University of Florida Institutional Review Board. A list of existing Florida dental hygiene programs was obtained from the American Dental Hygienists’ Association (2009b) and the Florida Allied Dental Educators (2009).

Data Collection

Data was collected from fourteen Florida dental hygiene program directors (seven state college, seven community college) using an electronic survey instrument. The survey instrument was e-mailed to the program directors using www.kwiksurveys.com. Along with the link to the
survey instrument, a cover e-mail and instructions for completing the survey were sent. Participants were given more than four weeks to complete and submit the survey electronically. Two weeks after the original survey deadline, nonresponders were reminded via e-mail with an embedded survey instrument link and given additional time to respond. With the advent of security firewalls placed onto campus computer networks, the researcher called each dental hygiene program director who had not responded to the survey four weeks after the initial mailing. The message left for the dental hygiene program directors simply stated that if the director had received the e-mail requesting participation in the study and the director was choosing not to participate, then thanks were given for their time. If, however, they had not received the survey due to their computer’s firewall blocking the e-mail, then they were asked to please e-mail or telephone the researcher so a new e-mail with the survey link could be sent out again. This action resulted in many more surveys being received by the researcher. Participation in the survey was voluntary, and failure to respond after the second e-mailing and follow-up phone call was considered as a choice not to participate.
CHAPTER 4
RESULTS

Fourteen Florida dental hygiene program directors responded (seven state colleges and
seven community colleges, as shown in Table 4-1), for a response rate of 82 percent.

Characteristics of state colleges and community colleges were addressed separately to provide a
comprehensive profile of each institution.

Table 4-1. Institutional setting of responding Florida dental hygiene program directors.

<table>
<thead>
<tr>
<th>Institutional setting</th>
<th>Dental Hygiene Program (N=14)</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>State College</td>
<td>7</td>
</tr>
<tr>
<td>Community College</td>
<td>7</td>
</tr>
</tbody>
</table>

Institutional Demographics

All responding Florida dental hygiene program directors were female. All responding
directors indicated that all students in their programs graduated with eighty-eight college credits.

Table 4-2 reflected that six state college dental hygiene program directors indicated that the
minimum number of years of education required for student admission into their program was
one or two years of college (86%), while three community college dental hygiene program
directors stated the same (43%). Only one state college dental hygiene program required less
than one year of college or high school diploma/GED for admission (14%), whereas four
community college dental hygiene programs required the same (57%).

Table 4-2. Minimum number of years of education required for student admission to dental
hygiene programs, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than one year of college</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>or high school diploma/GED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One or two years of college</td>
<td>6</td>
<td>86</td>
</tr>
</tbody>
</table>
**Number of Full-Time Faculty**

In Table 4-3, state college dental hygiene program director respondents indicated that the number of full-time dental hygiene faculty in their programs ranged from 1.5 to 5 faculty, for a total of 22.5 full-time faculty in all responding Florida state college dental hygiene programs. Of these 22.5 full-time faculty, 12.5 (56%) had baccalaureate degrees in dental hygiene; the other ten (44%) faculty had baccalaureate degrees in a wide variety of disciplines, including Health Services Administration, Education, Nursing, Vocational Education, and others. One (10%) of these latter full-time faculty was a dentist.

Table 4-3. Total number of full-time dental hygiene faculty, number of full-time dental hygiene faculty with baccalaureate degrees in dental hygiene, and number of full-time dental hygiene faculty with baccalaureate degrees in a discipline other than dental hygiene, by institutional setting (N=14).

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Total number of full-time faculty</td>
<td>22.5</td>
<td>100</td>
</tr>
<tr>
<td>Total number of full-time faculty with baccalaureate degrees in dental hygiene</td>
<td>12.5</td>
<td>56</td>
</tr>
<tr>
<td>Total number of full-time faculty with baccalaureate degrees in a discipline other than dental hygiene</td>
<td>10</td>
<td>44</td>
</tr>
</tbody>
</table>

Community college dental hygiene program directors indicated that the number of full-time dental hygiene faculty in their programs ranged from 2 to 5 faculty, for a total of 21.5 full-time faculty in all responding Florida community college dental hygiene programs. Of these 21.5 full-time faculty, only four (19%) had baccalaureate degrees in dental hygiene; the other 17.5 (81%) faculty had baccalaureate degrees in a wide variety of disciplines, including Accounting, French, Political Science, Environmental Science, Information Systems, and others. Three (17%) of these latter full-time faculty were dentists.
Number of Part-Time Faculty

In Table 4-4, responses from Florida state college dental hygiene program directors indicated that the number of part-time faculty in their programs ranged from 4 to as many as 22 faculty, for a total of 65 part-time faculty in all responding Florida state college dental hygiene programs. Of these 65 part-time faculty, sixteen (25%) had baccalaureate degrees in dental hygiene; the other 49 (75%) faculty had baccalaureate degrees in a wide variety of disciplines, including Science, Liberal Arts, Health Sciences, Business, Arts, and others. Five (10%) of these latter part-time faculty were dentists.

Table 4-4. Total number of part-time dental hygiene faculty, number of part-time dental hygiene faculty with baccalaureate degrees in dental hygiene, and number of part-time dental hygiene faculty with baccalaureate degrees in a discipline other than dental hygiene, by institutional setting (N=14).

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of part-time faculty</td>
<td>65 100</td>
<td>49 100</td>
</tr>
<tr>
<td>Total number of part-time faculty with baccalaureate degrees in dental hygiene</td>
<td>16 25</td>
<td>24 49</td>
</tr>
<tr>
<td>Total number of part-time faculty with baccalaureate degrees in a discipline other than dental hygiene</td>
<td>49 75</td>
<td>25 51</td>
</tr>
</tbody>
</table>

Responses from Florida community college dental hygiene program directors indicated that the number of part-time faculty in their programs ranged from 3 to 12 faculty, for a total of 49 part-time faculty in all responding Florida community college dental hygiene programs. Of these 49 part-time faculty, twenty-four (49%) had baccalaureate degrees in dental hygiene; the other 25 (51%) faculty had baccalaureate degrees in a wide variety of disciplines, including Vocational Education, Biology, Speech/Communications, Information Systems, Health Education, and others. At least seven (28%) of these latter part-time faculty were dentists.
Full-Time Faculty Required Credentials

Each of the seven state college respondents indicated a completely different set of credentials required for full-time faculty appointment at their institution. Four (57%) state colleges required 3-5 years of experience working in the field of dental hygiene as a requirement while three (43%) state colleges required more than 5 years of field experience. None (0%) of the state colleges required a minimum of an associate’s degree for full-time appointment. Three (43%) state colleges required a baccalaureate degree for full-time appointment while four (57%) required a master’s degree. Only two (29%) state colleges required teaching experience for full-time appointment.

On the other hand, full-time appointment credentials for the responding community colleges were slightly different from those for state colleges, although each community college (except for two) indicated completely different requirements from each other. Three (43%) community colleges required only 1-2 years field experience while only one (14%) school required more than 5 years field experience. Three (43%) community colleges did not require any field experience. One (14%) community college required an associate’s degree and a baccalaureate degree for full-time appointment. Four (57%) community colleges required only a baccalaureate degree, one (14%) required a baccalaureate degree and a master’s degree, and one (14%) required only a master’s degree. Five of the seven (71%) responding community colleges required teaching experience for full-time appointment, which differed greatly from the only two (29%) state colleges that did. A summary of full-time faculty credentialing requirements by institutional setting were found in Table 4-5.

Part-Time Faculty Required Credentials

Three of the seven (43%) responding state colleges had the same credentials requirements for part-time faculty appointment (3-5 years field experience and baccalaureate degree). The
other four responding state colleges each had different credentials requirements for part-time faculty appointment: Two (29%) state colleges required 1-2 years field experience, one (14%) required 3-5 years field experience, and one (14%) required more than 5 years field experience for part-time faculty appointment. Associate degrees were required at two (29%) state colleges and baccalaureate degrees were required at two (29%) state colleges; none (0%) of the state colleges required a master’s degree for part-time faculty appointment. None (0%) of the state colleges required teaching experience for part-time faculty appointment.

Table 4-5. Credentials required for full-time dental hygiene faculty appointment by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Dental Hygiene Field Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-2 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3-5 years</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Associate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>3</td>
<td>57</td>
</tr>
<tr>
<td>Master</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>71</td>
</tr>
</tbody>
</table>

Two of the seven (29%) responding community colleges had the same credentials requirement for part-time faculty appointment (1-2 years field experience and associate’s degree). The other five responding community colleges each had different credentials requirements for part-time faculty appointment: one (14%) community college required 1-2 years field experience, 2 (29%) required 3-5 years field experience, none (0%) required more than 5 years field experience, and two (29%) did not require any field experience at all for part-time faculty appointment. Two (29%) community colleges required an associate degree and two
(29%) required a baccalaureate degree; none (0%) of the community colleges required a master’s degree for part-time faculty appointment. One (14%) community college indicated no educational requirement for faculty appointment. Two (29%) of the community colleges required teaching experience for part-time faculty appointment. A summary of part-time faculty credentialing requirements by institutional setting were found in Table 4-6.

Table 4-6. Credentials required for part-time dental hygiene faculty appointment by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Dental Hygiene Field Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-2 years</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>3-5 years</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Associate</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Master</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Teaching Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

**Other Institutional Dental Hygiene Program Demographics**

When asked if their institution had to hire individuals for their program whose credentials were lower than their minimum required credentials in order to fill a critical faculty position (question 6), all (100%) state college respondents answered “No”, while six (86%) community college respondents answered “No”; one (14%) community college respondent answered “Yes” (see Table 4-7). Question 7 asked respondents if their institution had to redistribute workload to existing faculty in order to compensate for an unfilled full-time position; two (29%) state college respondents answered “Yes” while four (57%) community college respondents answered “Yes” (see Table 4-8). Question 8 was the same as question 7, but with regards to part-time faculty;
one (14%) state college responded with a “Yes” while four (57%) community colleges responded with a “Yes” (see Table 4-9).

Table 4-7. Institutional need to hire dental hygiene faculty with credentials lower than minimum requirement in order to fill critical dental hygiene faculty positions, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4-8. Institutional redistribution of workload to existing dental hygiene faculty in order to compensate for unfilled full-time dental hygiene faculty positions, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 4-9. Institutional redistribution of workload to existing dental hygiene faculty in order to compensate for unfilled part-time dental hygiene faculty positions, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>86</td>
</tr>
</tbody>
</table>

Question 9 asked those surveyed if they anticipated a need for replacement of full-time faculty within the next five years: Table 4-10 reflects that two (29%) state college answered “Yes” and three (43%) community colleges answered “Yes.” Question 10 asked those who answered “Yes” to question 9 how many full-time faculty they anticipated to replace; all respondents who answered “Yes” (state and community college) indicated that one full-time faculty would be replaced. Question 11 asked those who answered “Yes” to question 9 the reasons why they would expect to replace any full-time faculty: both state college respondents indicated faculty retirement as the reason for replacement, while two community college respondents indicated retirement as the reason and one community college respondent indicated
the anticipated return of the availability of a full-time position at her institution. Responses were summarized in Table 4-11.

Table 4-10. Anticipated need for replacement of full-time dental hygiene faculty within the next five years, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 4-11. Reasons for anticipated replacement of full-time dental hygiene faculty within the next five years, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=2)</th>
<th>Community College (N=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty retirement</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>Return of full-time dental hygiene faculty positions available at institution</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

When respondents were asked if there were currently any unfilled full-time faculty positions at their institution (question 12), two (29%) state college answered “Yes” and none (0%) of the community colleges answered “Yes.” Question 13 asked if there were currently any unfilled part-time positions at their institutions; one (14%) state college respondents answered “Yes” and two (29%) community college respondents answered “Yes” (see Table 4-12 for a summary of the responses to questions 12 and 13).

Table 4-12. Currently available unfilled full-time and part-time dental hygiene faculty positions, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Full-time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Part-time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>86</td>
</tr>
</tbody>
</table>
Perceptions on Dental Hygiene Baccalaureate Degree-Completion Programs

The second part of the survey asked the dental hygiene program directors about their perceptions about dental hygiene baccalaureate degree-completion programs. There were fourteen questions included in the second part of the survey.

Nearly four-fifths of all respondents “Agreed” (43%) or “Somewhat Agreed” (36%) that a baccalaureate degree should result from a dental hygiene educational program. There was no statistically significant difference in responses between state college dental hygiene program directors and community college dental hygiene program directors (p=0.7333, Mann Whitney U test; do not reject H_0). While no state college dental hygiene programs directors responded negatively to this question, two out of seven (29%) community college dental hygiene program directors gave a negative response [“Somewhat Disagree” (14%) and “Disagree” (14%)]. Table 4-13 summarized these data.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Median (Interquartile Range)</td>
<td>2 (1-2)</td>
<td>1 (1-4)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.733</td>
<td></td>
</tr>
</tbody>
</table>

When asked how important it would be to their institution to advance the entry level educational requirement for dental hygienists to a bachelor’s degree, nearly three-quarters of all respondents answered “Important” (29%) or “Somewhat Important” (43%). Although six out of seven (86%) state college dental hygiene program directors answered in the positive compared to four out of seven (57%) community college dental hygiene program directors answering in the
positive, the difference was not statistically significant (p=0.1212, Mann Whitney U test). No state college dental hygiene program directors responded negatively to this question, while three out of seven community college dental hygiene program directors did [“Somewhat Unimportant” (29%) and “Unimportant” (14%)]. Table 4-14 summarized these data. Similarly, when asked how important it would be to their community to advance the entry level educational requirement for dental hygienists to a bachelor’s degree, fifty percent of all respondents answered “Important” (29%) or “Somewhat Important” (21%). These results also showed no statistically significant difference between responses from state college dental hygiene program directors and community college dental hygiene program directors (p=0.1329, Mann Whitney U test).

Interestingly, four out of seven (57%) of community college dental hygiene program directors felt that their community would find it “Somewhat Unimportant” (29%) or “Unimportant” (29%) to advance the entry-level educational requirement for dental hygienists to a bachelor’s degree, while one out of seven (14%) state college dental hygiene program directors felt that way. Table 4-15 summarized these data.

Table 4-14. Survey respondents’ perceptions of how important it would be to their institution to advance the entry-level educational requirements for dental hygienists to a bachelor’s degree, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Important</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Neutral/No opinion</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Somewhat unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Median (Interquartile Range)</td>
<td>2 (1-2)</td>
<td>2 (2-4)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.121</td>
<td></td>
</tr>
</tbody>
</table>

Ninety-three percent of all respondents felt it was “Important” (79%) or “Somewhat Important” (14%) to increase the availability of dental hygiene baccalaureate-degree completion programs in Florida, yet there was no statistically significant difference between responses from
Table 4-15. Survey respondents’ perceptions of how important it would be to their community to advance the entry-level educational requirements for dental hygienists to a bachelor’s degree, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Important</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Neutral/No opinion</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Somewhat unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unimportant</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Median (Interquartile Range)</td>
<td>2 (1-3)</td>
<td>4 (2-5)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.133</td>
<td></td>
</tr>
</tbody>
</table>

Correspondingly, eighty-five percent of all respondents indicated that if more Florida dental hygiene baccalaureate degree-completion programs were available in Florida, this would “Greatly” (21%) or “Somewhat” (64%) ease the difficulty in finding qualified dental hygiene faculty. Again, there was no statistically significant difference between replies from state college dental hygiene program directors and community college dental hygiene program directors (p=0.4760, Mann Whitney U test; do not reject H02). Table 4-16 summarized these data.

Table 4-16. Survey respondents’ perceptions of how important it is to increase the availability of dental hygiene baccalaureate degree-completion programs in Florida, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Important</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Neutral/No opinion</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Median (Interquartile Range)</td>
<td>1 (1-1)</td>
<td>1 (1-2)</td>
</tr>
<tr>
<td>p-value</td>
<td>0.476</td>
<td></td>
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</tbody>
</table>

(p=0.6526, Mann Whitney U test). In fact, there was no difference at all in responses, as six out of seven (86%) state college dental hygiene program directors and six out of seven (86%) community college dental hygiene program directors gave positive answers. Only one
community college dental hygiene program director responded negatively (14%), while zero state college dental hygiene program directors answered negatively (0%). Table 4-17 summarized these data.

Table 4-17. Survey respondents’ perceptions if the difficulty in finding qualified dental hygiene faculty would be eased if more Florida dental hygiene baccalaureate degree-completion programs were available, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Greatly</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Somewhat</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Neutral/No opinion</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Slightly</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Not at all</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Median (Interquartile Range)</strong></td>
<td>2 (1-2)</td>
<td>2 (2-2)</td>
</tr>
<tr>
<td><strong>p-value</strong></td>
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<td></td>
</tr>
</tbody>
</table>

All of the respondents (100%) answered that it was “Important” (71%) or “Somewhat Important” (29%) for recent graduates from their programs to have the opportunity to pursue a baccalaureate degree in dental hygiene. Not surprisingly, there was no statistically significant difference between responses from state college dental hygiene program directors and community college dental hygiene program directors (p=0.5594, Fisher’s Exact Test). Table 4-18 summarized these data. When asked if there were currently enough other institutions in their service area which met the needs of their students (affordability, short traveling distance, etc.), and offered baccalaureate degrees for their students/graduates to be able to easily pursue a

Table 4-18. Survey respondents’ perceptions on how important it is for recent graduates from their programs to have the opportunity to pursue a baccalaureate degree in dental hygiene, by institutional setting.

<table>
<thead>
<tr>
<th></th>
<th>State College (N=7)</th>
<th>Community College (N=7)</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Important</td>
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</tr>
<tr>
<td>Somewhat important</td>
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</tbody>
</table>
baccalaureate degree (not necessarily in dental hygiene), seventy-one percent of all respondents indicated “Yes.” There was no statistically significant difference between responses from state college dental hygiene program directors and community college program directors (p=0.5594, Fisher’s Exact Test).

The next part of the survey asked questions regarding the fourteen dental hygiene programs’ readiness to develop a dental hygiene baccalaureate degree-completion program at their institution. The program directors were informed that one of the first steps necessary to decide whether to offer a dental hygiene baccalaureate degree-completion program is to conduct a feasibility study (surveying potential employers, students, and graduate schools). Then the question, “Is your institution prepared to do this?” was posed. Four out of seven (57%) state college dental hygiene program directors responded “Yes,” while three out of seven (43%) community college dental hygiene program directors responded “Yes.” No statistically significant difference was noted between responses from state college dental hygiene program directors and community college dental hygiene program directors (p=1.00, Fisher’s Exact Test).

Dental hygiene program directors were then informed that another step towards the path of offering a dental hygiene baccalaureate degree-completion program is to create partnerships, both within the institution and externally. The question, “Is your institution prepared to develop partnerships with such departments as institutional technology (IT) staff, admissions staff, and the institutional research division within your institution, as well as external partnerships such as other higher education institutions?” was then asked. More than three-quarters of all respondents answered “Yes” to this question. No statistically significant difference in responses between state college dental hygiene program directors and community college dental hygiene program directors was noted (p=1.00, Fisher’s Exact Test).
When asked if their institution had the financial resources available for new baccalaureate degree program development, “Yes” responses were received in equal amounts from both state college dental hygiene program directors and community college dental hygiene program directors (four out of seven, or 57%, each). As such, there was absolutely no difference in responses between the two institutional settings (p=1.00, Fisher’s Exact Test). Those respondents who answered “Yes” to this question were then asked if those financial resources would be available to them for development of a dental hygiene baccalaureate degree-completion program. Two out of seven (29%) state college dental hygiene program directors answered Yes” while none of the seven (0%) community college dental hygiene program directors responded “Yes.” A statistically significant difference in responses between the two institutional settings was not detected (p=0.4444, Fisher’s Exact Test).

Although all of the community college dental hygiene program directors indicated that financial resources would NOT be available to them to develop a dental hygiene baccalaureate degree-completion program at their institution, two (29%) of them DID indicate that their institution would be prepared to make the changes necessary to achieve the development and establishment of such a program, which was the next question in the survey. The two (29%) state college dental hygiene program directors who answered “Yes” to the previous question also answered “Yes” to this question. Obviously, there was no statistically significant difference between responses from state college dental hygiene program directors and community college dental hygiene program directors (p=1.00, Fisher’s Exact Test; do not reject H03).

Of the four respondents to the question about whether their institution was prepared to make the changes necessary to achieve the development and establishment of a dental hygiene baccalaureate degree-completion program, one state college dental hygiene program director
indicated that the most likely date of program implementation would be 2014; two state college dental hygiene program directors and two community college dental hygiene program directors indicated this date would most likely be 2015.

The last question on the survey asked all respondents, “If your institution were to implement a dental hygiene baccalaureate degree-completion program, what is the most likely format for instructional delivery?” Responses from state college dental hygiene program directors indicated a blended format (mostly on-line with a few face-to-face meetings) for three of them (43%), three (43%) responded the format would most likely be completely on-line, and one (14%) responded, “It was difficult for me to respond to the two above questions as I do not know if my institution is prepared to make the changes. There are numerous bachelor degree options going forward at this time, but dental hygiene has not been one of them.” Community college dental hygiene program directors responded as follows: one (14%) indicated the most likely format would be completely on-line, another one (14%) answered the format would most likely be blended, a third (14%) indicated their institution is not interested in developing a dental hygiene baccalaureate degree-completion program at this time. The last three (49%) community college dental hygiene program directors each responded with a different statement: “I can't speak about what the school would be interested in,” “We are currently investigating the potential of operating a BS in Health Information Systems,” and “Several of the questions above cannot be specifically answered without having first had an opportunity to speak with the College administration about such possibilities. If our college were to offer a baccalaureate degree-completion program, it would likely be online.”

Analysis of Research Questions

Since there was strong support among Florida state college and community college dental hygiene program directors for the advancement of the baccalaureate degree as the entry-level
requirement for dental hygiene, with no statistically significant difference in responses (p=0.7333, Mann-Whitney U test), the first null hypothesis (H₀₁: There was no difference in perceptions among Florida state college and community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program) failed to be rejected. The only respondents who “Somewhat disagreed” or “Disagreed” that a baccalaureate degree should result from a dental hygiene program were both dental hygiene program directors at community colleges. Both of these directors answered “No” to the question asking whether financial resources would be available to them for development of a dental hygiene baccalaureate degree-completion program. It is interesting to note that both of the community colleges represented by these dental hygiene program directors were not slated to become part of the Florida state college system in the future; they remained community colleges and never offer baccalaureate degrees to their surrounding community. It was speculated that the dental hygiene program directors’ responses were based on this information.

The second null hypothesis (H₀₂: There was no difference in perceptions among Florida state college and community college dental hygiene program directors about the need for more dental hygiene baccalaureate degree-completion programs in Florida) also failed to be rejected due to no statistically significant difference in responses when the dental hygiene program directors were asked how important it was to increase the availability of dental hygiene baccalaureate degree-completion programs in Florida (p=0.4760, Mann Whitney U test). Of interest to note was that although thirteen of the fourteen total respondents answered in the positive to this question, the only dissenter was a community college dental hygiene program director. It is possible that this program director feels that having one baccalaureate degree-
completion program available in Florida was enough, especially considering that the program was completely online and was readily accessible from anywhere within the state.

Lastly, the third null hypothesis (H₀3: There was no difference in perceptions among Florida state college and community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program) failed to be rejected as there also was no statistically significant differences in responses between state college and community college Florida dental hygiene program directors to the question that asked if their institution would be prepared to makes the changes necessary to achieve the development and establishment of a dental hygiene baccalaureate degree-completion program (p=1.00, Fisher’s Exact Test). What drew attention to this data was how responses from both state college and community college dental hygiene program directors were exactly the same: two state college and two community college dental hygiene program directors replied “Yes,” and five state college and five community college dental hygiene program directors replied “No.” Interestingly, one state college and one community college “Yes” respondent represented institutions located in large metropolitan areas, and one state college and one community college “Yes” respondent represented institutions located in small metropolitan areas. Table 4-19 summarized these data.

Table 4-19. Summary of analysis of research questions

<table>
<thead>
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<th>p-value</th>
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<th>Status</th>
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<tbody>
<tr>
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<td>Mann Whitney U</td>
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<td>0.4760</td>
<td>Mann Whitney U</td>
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<tr>
<td>H₀₃</td>
<td>1.0000</td>
<td>Fisher’s Exact</td>
<td>Fail to reject</td>
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</tbody>
</table>
CHAPTER 5
CONCLUSIONS

Introduction

This study investigated the current faculty needs at Florida dental hygiene programs and the perceptions of those program directors on possible future educational needs for their faculty, and determined whether those programs were prepared to establish a dental hygiene baccalaureate degree-completion program if the need arose. A 29-question electronic survey was e-mailed to ten Florida state college dental hygiene program directors and seven Florida community college dental hygiene program directors. Fourteen Florida dental hygiene program directors responded to the survey (seven state colleges and seven community colleges). The survey instrument was designed based in part on a survey instrument designed by Collins et al (2007a), which was extrapolated from the 1999 National Study of Postsecondary Faculty (NSOPF) published by the National Center for Education Statistics. Other questions were extrapolated from the survey instrument used in the November 2008 American Dental Education Association’s (ADEA) Dental Hygiene Program Directors’ Survey (Okwuje et al, 2010). Survey responses were analyzed using SAS software program version 9.2. The study was conducted after approval was received from the University of Florida Institutional Review Board in November 2010.

Discussion of Findings

This research study answered three research questions: Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program? Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene
program directors about the need for the establishment of additional dental hygiene baccalaureate degree-completion programs in Florida? Was there a difference in perceptions among Florida state college dental hygiene program directors and Florida community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program?

Since there was strong support among Florida state college and community college dental hygiene program directors for the advancement of the baccalaureate degree as the entry-level requirement for dental hygiene, with no statistically significant difference in responses (p=0.7333), the first null hypothesis (“There was no difference in perceptions among Florida state college and community college dental hygiene program directors that a baccalaureate degree should result from a dental hygiene education program”) failed to be rejected. The only respondents who “Somewhat disagreed” or “Disagreed” that a baccalaureate degree should result from a dental hygiene program were both dental hygiene program directors at community colleges. Both of these directors answered “No” to the question asking whether financial resources would be available to them for development of a dental hygiene baccalaureate degree-completion program. It was interesting to note that both of the community colleges represented by these dental hygiene program directors were not slated to become part of the Florida state college system in the future; they remained community colleges and never offered baccalaureate degrees to their surrounding community. It was speculated that the dental hygiene program directors’ responses were based on this information.

The second null hypothesis (“There was no difference in perceptions among Florida state college and community college dental hygiene program directors about the need for more dental hygiene baccalaureate degree-completion programs in Florida”) also failed to be rejected due to
no statistically significant difference in responses when the dental hygiene program directors were asked how important it was to increase the availability of dental hygiene baccalaureate degree-completion programs in Florida (p=0.4760, Mann Whitney U test). Of interest to note was that although thirteen of the fourteen total respondents answered in the positive to this question, the only dissenter was a community college dental hygiene program director. It was possible that this program director felt that one baccalaureate degree-completion program available in Florida is enough, especially when it was considered that the program was completely online and was readily accessible from anywhere within the state.

Lastly, the third null hypothesis (“There was no difference in perceptions among Florida state college and community college dental hygiene program directors about their institution’s preparedness to establish a dental hygiene baccalaureate degree-completion program”) failed to be rejected as there also was no statistically significant differences in responses between state college and community college Florida dental hygiene program directors to the question that asked if their institution would be prepared to makes the changes necessary to achieve the development and establishment of a dental hygiene baccalaureate degree-completion program (p=1.00, Fisher’s Exact Test). What drew attention to this data was how responses from both state college and community college dental hygiene program directors were exactly the same: two state college and two community college dental hygiene program directors replied “Yes,” and five state college and five community college dental hygiene program directors replied “No.” Interestingly, one state college and one community college “Yes” respondent represented institutions located in large metropolitan areas, and one state college and one community college “Yes” respondent represented institutions located in small metropolitan areas.
Conclusions

This was the first study done which was solely based on the perceptions of Florida dental hygiene program directors. The proportion of responding Florida dental hygiene program directors was equal numbers from state colleges (N=7) and community colleges (N=7). The response rate was 82%. The majority of all respondents supported advancing the entry-level educational requirement for dental hygiene practice to the bachelor’s level. These responses echoed the four-year institutional setting responses to the ADEA Council of Allied Program Directors’ Survey administered to the 300 Commission on Dental Accreditation (CODA)-accredited U.S. dental hygiene program in November 2008, suggesting that a bachelor’s degree become the point of entry into dental hygiene (Okwuje et al, 2010). This sentiment was again confirmed at the 2006 ADEA Summit on Allied Dental Education (American Dental Education Association, 2007).

There was no statistically significant difference between Florida state college and community college dental hygiene program directors in the responses to the survey. This showed that all respondents’ perceptions about the survey questions were the same, regardless of institutional setting. This was vastly different from the 2008 ADEA Council of Allied Program Directors’ Survey, where institutional setting played a major role in determining responses: four-year institutions scored higher than two-year institutions in agreeing whether completing a dental hygiene program should result in a baccalaureate degree (Okwuje et al, 2010).

The results of this study presented an interesting paradox: while respondents agreed that a baccalaureate degree should result from a dental hygiene education program and that their institutions have the financial resources for new baccalaureate program development, few responded that their institutions were willing to use those financial resources for dental hygiene baccalaureate degree-completion program development. At the same time, a number of dental
hygiene program directors anticipated the need to replace some full-time faculty sometime in the next five years due to faculty retirement. Moreover, many dental hygiene program directors had to hire dental hygiene faculty with credentials lower than the minimum requirement in order to fill critical dental hygiene faculty positions. CODA dental hygiene program accreditation standards required that all dental hygiene program faculty must possess at least a baccalaureate degree. With only one dental hygiene baccalaureate degree-completion program available in Florida, how will qualified dental hygiene faculty be recruited in Florida in the future?

Another future problem for Florida dental hygiene programs would be when the entry-level for dental hygiene is nationally advanced to the baccalaureate degree. Not only would dental hygiene programs be forced to transition their associate degree programs to baccalaureate degree programs, the accreditation standard for faculty would change. For baccalaureate degree-granting institutions, faculty had to possess at minimum a master’s degree. The results of this study showed that the associate degree dental hygiene programs in Florida had difficulty recruiting qualified dental hygiene faculty possessing at least a baccalaureate degree; how much more difficult would it be to recruit qualified dental hygiene faculty possessing at least a master’s degree? Florida must look ahead and be prepared for the changes in the dental hygiene profession.

**Implications for Dental Hygiene Education**

These results would be useful for the American Dental Education Association (ADEA), which nationally represented dental and allied dental education, for the American Dental Hygienists; Association (ADHA), which nationally represented the interests of all dental hygienists, and for the American Dental Association (ADA), which annually surveyed and provided accreditation standards for dental hygiene education through its Commission on Dental Accreditation (CODA) (2010). The former two organizations would be critical in overcoming
the shortage of dental hygiene educators likely to result from the retirement plans of current faculty. The latter organization would need to reconsider revising their accreditation standards to include accrediting dental hygiene baccalaureate degree-completion programs. As of 2010, CODA only accredited entry-level (associate, certificate, and bachelor programs) dental hygiene programs in the United States. Dental hygiene baccalaureate degree-completion programs were accredited by the regional accreditation agency for that program. For example, the only Florida school which offered a dental hygiene baccalaureate degree-completion program also had an entry-level (associate degree) dental hygiene program that was accredited by CODA, while the dental hygiene baccalaureate degree-completion program was accredited by the Southern Association of Colleges and Schools (SACS), not CODA. Making the baccalaureate degree the only accepted entry-level degree for dental hygiene opened doors of opportunity for graduates who were otherwise be limited to clinical practice. It also impacted the shortage of dental hygiene educators by supplying graduates who were qualified to enter the ranks of academia.

**Implications for Higher Education Leaders**

Florida was in a unique situation in that it had essentially been a national pioneer in offering baccalaureate degrees through their community colleges; these colleges had been differentiated from traditional community colleges by being called state colleges. With the projected shortage of dental hygiene educators in Florida, and the availability of only one completely online baccalaureate degree-completion program within Florida, it behooved higher education leaders to consider allowing other state colleges to develop and establish additional dental hygiene baccalaureate degree programs in Florida. Those programs would be offered in different formats from the model used by the only college which offered a dental hygiene baccalaureate degree-completion program, as students would have had a variety of program delivery options made available to them. Blended (some face-to-face meetings with the rest of
the content online, or a 50/50 offering), traditional (all in the classroom with 100% face-to-face meetings, or some other delivery options would have been considered for other format offerings. This would have ensured that tuition dollars were more evenly distributed among the state colleges, instead of one college receiving all of the dental hygiene baccalaureate degree-completion program dollars.

**Recommendations for Future Studies**

With the opening of more dental hygiene programs across the state of Florida, and fewer clinical employment positions available to dental hygiene program graduates due to the national economy, opening more dental hygiene baccalaureate degree-completion programs would have aided in giving licensed dental hygienists the opportunity to be eligible for employment in education, public health, research, corporate settings, and hospitals, and not be limited to clinical private practice. These degree-completion programs would have been evenly distributed across Florida, and offered in a variety of delivery options so that prospective students could choose the learning format they prefer. Additional research studies which assess currently licensed Florida dental hygienists’ perceptions about the need for more Florida baccalaureate-degree completion programs should conducted in the future.

It would be interesting to discover if the dental community would support the notion of the baccalaureate becoming the entry-level degree for dental hygiene. A research study which surveyed dentists would ascertain the answer to this question.

To increase graduate opportunities in dental hygiene, and to address the dental hygiene educator shortage, additional master’s programs should also be created and evenly distributed across Florida for improved student access. These programs should focus on preparing future faculty and leaders of the profession in multiple roles such as teaching, research, service, and program administration. A dental hygiene doctoral program could also be developed in Florida.
Research studies which would assess currently licensed Florida dental hygienists’ perceptions about the need for more Florida baccalaureate-degree completion and dental hygiene master’s degree programs should be conducted in the future. In addition, since there were no dental hygiene doctoral programs in the United States, research which would assess the need for the establishment of dental hygiene doctoral programs would also be indicated. Other research to consider would be to contemplate whether the possibility of flooding the job market with too many baccalaureate degree-earned individuals would be a wise decision in the face of a poor economic situation, and what would be the return to the institution in this instance, and what would be the return to the student. Another area for further research would be whether institutional administrators should support or oppose the creation of more baccalaureate programs.

Given that some other health professions had already moved beyond the baccalaureate degree as entry to practice and developed mechanisms for individuals to pursue advanced education more easily, dental hygiene must have planned for the baccalaureate as the entry to practice in the future and put mechanisms in place that allowed easy access to advanced education. Holding a bachelor’s degree in dental hygiene would have offered dental hygiene practitioners the opportunity for advancement and expansion in a number of career opportunities.

Creating more Florida dental hygiene baccalaureate degree-completion programs represented an exciting challenge for the profession. Choosing to elevate dental hygiene education to the level attained by other health professions to advance dental hygiene education, research, and leadership was a course that required further discussion, action, and commitment. Movement to advance the entry-level educational requirement depended on the courage and tenacity of dental hygiene educators, researchers, clinicians, and leaders.
APPENDIX
FLORIDA DENTAL HYGIENE PROGRAM DIRECTOR’S SURVEY QUESTIONS

Program Name: _____________________ Program Location: _____________________

Program and Faculty Demographics

1. What is the institutional setting for your program?
   a. State college
   b. Community college

2. How many full-time faculty does your program have? _________________
   a. How many possess a baccalaureate degree in dental hygiene? ______
   b. How many possess a baccalaureate in a discipline other than dental hygiene? ______
      i. What is the baccalaureate degree in?
         ___________________________________________________________
         ___________________________________________________________

3. How many adjunct faculty does your program have? _________________
   a. How many possess a baccalaureate degree in dental hygiene? ______
   b. How many possess a baccalaureate in a discipline other than dental hygiene? ______
      i. What is/are the baccalaureate degree(s) in?
         ___________________________________________________________
         ___________________________________________________________

4. Please identify the credentials REQUIRED for full-time appointment in your program.
   Please circle ALL that apply.
   a. 1-2 years experience in discipline
   b. 3-5 years in discipline
   c. >5 years in discipline
   d. Associate’s degree
   e. Bachelor’s degree
   f. Master’s degree
   g. Teaching experience
   h. Other Please explain ________________________________
5. Please identify the credentials REQUIRED for part-time appointment in your program. Please circle ALL that apply.

   a. 1-2 years experience in discipline
   b. 3-5 years in discipline
   c. >5 years in discipline
   d. Associate’s degree
   e. Bachelor’s degree
   f. Master’s degree
   g. Teaching experience
   h. Other  Please explain ____________________________________________

6. Has your institution had to hire individuals for your program whose credentials are lower than your minimum required credentials in order to fill a critical faculty position?

   a. Yes
   b. No

7. Has your institution had to redistribute workload to existing faculty in order to compensate for an unfilled full-time position?

   a. Yes
   b. No

8. Has your institution had to redistribute workload to existing faculty in order to compensate for an unfilled part-time position?

   a. Yes
   b. No

9. Do you anticipate a need for replacement of full-time faculty within the next five years?

   a. Yes
   b. No

10. If you expect to have to replace full-time faculty within the next five years, how many replacements of full-time faculty do you anticipate? ______________________
11. If you expect to have to replace full-time faculty within the next five years, please list the reason(s) why you expect the need to replace the faculty member(s).

________________________________________________________________________

________________________________________________________________________

12. Does your program currently have any unfilled full-time faculty positions?
   a. Yes
   b. No

13. Does your program currently have any unfilled part-time faculty positions?
   a. Yes
   b. No

14. What is the minimum number of years of education required for student admission to your program?
   a. Less than one year of college or high school diploma/GED
   b. One or two years of college

15. How many college credits will a student from your program have earned upon graduation? ____________ credits

*Perceptions on Dental Hygiene Baccalaureate Degree-Completion Programs*

1. In your opinion, should a bachelor’s degree result from a dental hygiene education program?
   a. Agree
   b. Somewhat agree
   c. Neither agree nor disagree
   d. Somewhat disagree
   e. Disagree
2. In your opinion, how important would it be to your institution to advance the entry-level educational requirement for dental hygienists to a bachelor’s degree?

   a. Important
   b. Somewhat important
   c. Neutral/No opinion
   d. Somewhat unimportant
   e. Unimportant

3. In your opinion, how important would it be to your community to advance the entry-level educational requirement for dental hygienists to a bachelor’s degree?

   a. Important
   b. Somewhat important
   c. Neutral/No opinion
   d. Somewhat unimportant
   e. Unimportant

4. Currently, the only dental hygiene baccalaureate-degree completion program in Florida is at St. Petersburg College. In your opinion, how important is it to increase the availability of dental hygiene baccalaureate-degree completion programs in Florida?

   a. Important
   b. Somewhat important
   c. Neutral/No opinion
   d. Somewhat unimportant
   e. Unimportant

5. In your opinion, if more Florida dental hygiene baccalaureate-degree completion programs were available, would this ease the difficulty in finding qualified dental hygiene faculty?

   a. Greatly
   b. Somewhat
   c. Neutral/No opinion
   d. Slightly
   e. Not at all
6. In your opinion, how important is it for recent graduates from your program to have the opportunity to pursue a baccalaureate degree in dental hygiene?
   a. Important
   b. Somewhat important
   c. Neutral/No opinion
   d. Somewhat unimportant
   e. Unimportant

7. In your institution’s service area, are there currently enough other institutions meeting the needs of your students (affordability, small traveling distance, etc.) that offer baccalaureate-level degrees for your students/graduates to be able to easily pursue a baccalaureate degree (not necessarily in dental hygiene)?
   a. Yes
   b. No

8. One of the first steps necessary to decide whether to offer a dental hygiene baccalaureate degree-completion program is to conduct a feasibility study (surveying potential employers, students, and graduate schools). Is your institution prepared to do this?
   a. Yes
   b. No

9. Another step towards the path of offering a dental hygiene baccalaureate degree-completion program is to create partnerships, both within the institution and externally. Is your institution prepared to develop partnerships with such departments as institutional technology (IT) staff, admissions staff, and the institutional research department within your institution, as well as external partnerships such as other higher education institutions?
   a. Yes
   b. No

10. Does your institution have the financial resources available for new baccalaureate degree program development?
    a. Yes
    b. No
11. If you answered “Yes” to question 10, would those financial resources be available to you for development of a dental hygiene baccalaureate degree-completion program?

   a. Yes
   b. No

12. Would your institution be prepared to make the changes necessary to achieve the development and establishment of a dental hygiene baccalaureate degree-completion program?

   a. Yes
   b. No

13. If you answered “Yes” to question 12, when would be the most likely date of program implementation?

   a. 2012
   b. 2013
   c. 2014
   d. 2015

14. If your institution were to implement a dental hygiene baccalaureate degree-completion program, what is the most likely format for instructional delivery?

   a. Completely on-line
   b. Blended (mostly on-line with some face-to-face meetings)
   c. Traditional (all classes meet in the classroom on campus)
   d. Other (Please describe). __________________________________________
   e. Our institution is not interested in developing a dental hygiene baccalaureate degree-completion program
REFERENCES


BIOGRAPHICAL SKETCH

Rebecca Margarite Smith is an Associate Professor of Dental Hygiene at Miami Dade College in Miami, FL. A native Miamian, she received her Associate of Science in Dental Hygiene degree from Miami Dade Community College in 1991, and became a Florida-licensed registered dental hygienist in August 1991. She then worked as a public health dental hygienist for the Miccosukee Tribe of Indians of Florida from 1991-2001. In 1998, she earned her Bachelor of Health Services Administration from Florida International University.

Ms. Smith then worked as a dental hygienist in clinical private practice from 2001-2005, dividing her time between general dental and periodontal practices and continuing attending school. She earned her Master of Public Health degree from the University of Miami in 2005. In August 2005, she began her full-time employment as an Assistant Professor at Miami Dade College. The major courses which she is responsible for are Preclinical Dental Hygiene, Dental Hygiene 1, Periodontology 1, and Periodontology 2. She is the clinical coordinator for Preclinical Dental Hygiene Laboratory and Dental Hygiene 1 Clinic, as well as the Periodontology 2 Laboratory coordinator.

Ms. Smith is active in the dental hygiene profession. She has served in several leadership positions at the local level, and has served as a delegate to the state and national meetings of the American Dental Hygienists’ Association. She is a mentor for dental hygiene students in her capacity as a co-advisor for the student chapter of the American Dental Hygienists’ Association at Miami Dade College. She volunteers for several dental hygiene events throughout the year.

Ms. Smith is proud to be the product of a Floridian father and Cuban mother. She has spent the last 18 years being a single mother to her 19-year-old daughter, Arielle. In her spare time, Ms. Smith enjoys traveling, fishing, boating, reading, movie-watching, gardening, and taking care of her seven dogs and five cats.