THE PERCEIVED NEED FOR A MASTER’S OF SCIENCE IN DENTAL HYGIENE DEGREE PROGRAM IN OHIO: OPINIONS OF LICENSED DENTAL HYGIENISTS’ AND BACCALAUREATE DEGREE DENTAL HYGIENE PROGRAM DIRECTORS

A Thesis

Presented in Partial Fulfillment of the Requirements for

the Degree Master of Science in the

Graduate School of The Ohio State University

*****

By

Stephanie Anne Dawson, B.S.

The Ohio State University

2006

Master’s Examination Committee:

Sally V. Rudmann, PhD, Advisor

Janelle M. Chiasera, PhD

Joan Gibson-Howell, RDH, EdD

Approved by

Sally V. Rudmann

Advisor

Graduate Program in Allied Medicine
ABSTRACT

As the discipline evolves, graduate education in the science of dental hygiene is becoming the focus of discussion for both medical and dental professions. The literature suggests that the purposes of a Master of Science Degree Program in Dental Hygiene (MSDH) are to prepare dental hygienists to teach, develop dental health programs in a variety of settings, conduct research, and provide care as collaborative dental hygiene practitioners with experiences that contribute to the dental hygiene scientific body of knowledge. The MSDH enables the dental hygienist to assist in and/or conduct research and theory development in the dental hygiene science, provides career opportunities in alternative practice settings, and prepares dental hygienists to meet the professional and educational concerns.

This descriptive study consists of a survey of dental hygienists licensed in Ohio and an interview of Baccalaureate Degree Dental Hygiene program directors in Ohio and the bordering states regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The overarching goal of this study is to identify if there is a perceived need for a MSDH degree program in the State of Ohio.

Overall, the majority of Ohio licensed dental hygienists did not believe that there was value in obtaining an MSDH with regard to their own personal and professional
growth. However, the majority did feel that there was value to pursuing an MSDH for those interested in dental hygiene faculty positions. When asked to indicate the obstacles to pursuing an MSDH degree they indicated that family responsibilities and the need to maintain an income would prevent them from pursuing a MSDH.

This study of the perceptions of Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, reveals that an MSDH degree is important to the dental hygiene profession and that an MSDH degree program is needed in Ohio. Directors’ perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio however they felt that their students most likely would take advantage of MSDH degree programs in their own state.

The majority of Ohio licensed dental hygienists as well as Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, feel that a MSDH degree program is needed in Ohio. The majority of Ohio licensed dental hygienists however did not include an MSDH degree in their plans for future professional advancement. According to this study, even if an MSDH degree program was implemented at The Ohio State University, in Columbus, the majority of Ohio licensed dental hygienists, who live more than 60 miles away from Columbus probably would not travel. This data is consistent with the many of the directors’ comments.
ABSTRACT

As the discipline evolves, graduate education in the science of dental hygiene is becoming the focus of discussion for both medical and dental professions. The literature suggests that the purposes of a Master of Science Degree Program in Dental Hygiene (MSDH) are to prepare dental hygienists to teach, develop dental health programs in a variety of settings, conduct research, and provide care as collaborative dental hygiene practitioners with experiences that contribute to the dental hygiene scientific body of knowledge. The MSDH enables the dental hygienist to assist in and/or conduct research and theory development in the dental hygiene science, provides career opportunities in alternative practice settings, and prepares dental hygienists to meet the professional and educational concerns.

This descriptive study consists of a survey of dental hygienists licensed in Ohio and an interview of Baccalaureate Degree Dental Hygiene program directors in Ohio and the bordering states regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The overarching goal of this study is to identify if there is a perceived need for a MSDH degree program in the State of Ohio.

Overall, the majority of Ohio licensed dental hygienists did not believe that there was value in obtaining an MSDH with regard to their own personal and professional
growth. However, the majority did feel that there was value to pursuing an MSDH for those interested in dental hygiene faculty positions. When asked to indicate the obstacles to pursuing an MSDH degree they indicated that family responsibilities and the need to maintain an income would prevent them from pursuing a MSDH.

This study of the perceptions of Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, reveals that an MSDH degree is important to the dental hygiene profession and that an MSDH degree program is needed in Ohio. Directors’ perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio however they felt that their students most likely would take advantage of MSDH degree programs in their own state.

The majority of Ohio licensed dental hygienists as well as Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, feel that a MSDH degree program is needed in Ohio. The majority of Ohio licensed dental hygienists however did not include an MSDH degree in their plans for future professional advancement. According to this study, even if an MSDH degree program was implemented at The Ohio State University, in Columbus, the majority of Ohio licensed dental hygienists, who live more than 60 miles away from Columbus probably would not travel. This data is consistent with the many of the directors’ comments.
Dedicated to my mother, who at the start of my graduate studies gave me this quote:

You’ve accepted the challenge, you’ve taken the dare,

You’ve chosen a path that takes hard work and care,

And no matter how far off your end goal may seem,

You have what it takes to achieve your heart's dream.

Author Unknown
ACKNOWLEDGMENTS

In sincere thanks to Dr. Sally Rudmann, my advisor. Her ability to challenge thought and an equal amount of guidance were an instrumental force throughout this study. Dr. Joan Gibson-Howell contributed encouragement and enthusiasm. Her gentle and reassuring manner always gave me the optimism I needed. Dr. Janelle Chiasera was an invaluable resource in the analysis of the data. I am in deep gratitude for her sense of humor, patience and statistical expertise.

Also, I would like to extend a warm thank you to all my family and friends for their assistance, concern and encouragement.

Last but most important of all, I wish to thank my husband, Ryan, for his understanding and support of my ambitions. It would certainly have been difficult for me to have reached my goals without him.
VITA

1999  B.S. Dental Hygiene, The Ohio State University

FIELDS OF STUDY

Major Field  Allied Medical Professions
Area of Emphasis  Health Education
# Table of Contents

Abstract..........................................................................................................................ii

Dedication.......................................................................................................................iv

Acknowledgments.........................................................................................................v

Vita..................................................................................................................................vi

List of Tables..................................................................................................................viii

List of Figures................................................................................................................ix

Chapters:                                                                 Page

1. Introduction..............................................................................................................1

2. Review of Literature...............................................................................................11

3. Methodology...........................................................................................................25

4. Results.....................................................................................................................34

5. Conclusions and Future Research..........................................................................73

Appendices:                                                                 Page

A. Questionnaire Cover letter and Questionnaire......................................................81

B. Baccalaureate Degree Dental Hygiene Program Director Recruitment Letter.........85

C. Baccalaureate Degree Dental Hygiene Program Director Interview Questions........86

References...................................................................................................................87
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Healthy People 2010 Oral Health Objectives</td>
<td>14</td>
</tr>
<tr>
<td>4.1 Cronbach’s Alpha for Items 1-7</td>
<td>41</td>
</tr>
<tr>
<td>4.2 Inter-Item Correlation Matrix for Items 1-7</td>
<td>41</td>
</tr>
<tr>
<td>4.3 Item-Total Statistics for Items 1-7</td>
<td>42</td>
</tr>
<tr>
<td>4.4 Cronbach’s Alpha for Items 8-13</td>
<td>43</td>
</tr>
<tr>
<td>4.5 Inter-Item Correlation Matrix for Items 8-13</td>
<td>43</td>
</tr>
<tr>
<td>4.6 Item-Total Statistics for Items 8-13</td>
<td>44</td>
</tr>
</tbody>
</table>
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Map of Master's of Science in Dental Hygiene Degree Programs in the United States</td>
<td>17</td>
</tr>
<tr>
<td>4.1 Highest Degree of Dental Hygiene Education</td>
<td>36</td>
</tr>
<tr>
<td>4.2 Number of Years Licensed as a Dental Hygienist</td>
<td>37</td>
</tr>
<tr>
<td>4.3 Hours worked per week as a Dental Hygienist</td>
<td>38</td>
</tr>
<tr>
<td>4.4 Primary Work Setting</td>
<td>39</td>
</tr>
<tr>
<td>4.5 Primary State of Practice</td>
<td>40</td>
</tr>
<tr>
<td>4.6 Job Performance</td>
<td>45</td>
</tr>
<tr>
<td>4.7 Personal Career Satisfaction</td>
<td>46</td>
</tr>
<tr>
<td>4.8 Competitive Advantage in Job Market</td>
<td>47</td>
</tr>
<tr>
<td>4.9 Better Qualified Dental Hygiene Faculty</td>
<td>48</td>
</tr>
<tr>
<td>4.10 Better Qualified Dental Hygiene Practitioners</td>
<td>49</td>
</tr>
<tr>
<td>4.11 Improve Quality of and Access to Care</td>
<td>50</td>
</tr>
<tr>
<td>4.12 Meet Evolving Roles</td>
<td>51</td>
</tr>
<tr>
<td>4.13 Maintaining an Income</td>
<td>52</td>
</tr>
<tr>
<td>4.14 Living More Than 60 miles From an Educational Setting</td>
<td>53</td>
</tr>
<tr>
<td>4.15 Family Responsibilities</td>
<td>54</td>
</tr>
<tr>
<td>4.16 Work Schedule</td>
<td>55</td>
</tr>
</tbody>
</table>
4.17 Educational Costs ........................................................................................................56
4.18 Amount of Time .........................................................................................................57
4.19 Need for MSDH Degree Program in Ohio .................................................................59
4.20 Part of Future Plan ....................................................................................................60
4.21 Traveling to Columbus if an MSDH degree program were implemented ..................61
4.22 Need for MSDH Degree Program in Ohio; Bachelors/Associates ...............................62
4.23 Part of Plan for Future Professional Advancement; Bachelors/Associates ..................62
4.24 Traveling to Columbus if an MSDH degree program were implemented;

            Bachelors/Associates ........................................................................................63
4.25 Perceived Values of Obtaining a MSDH Degree; Majority Responses ........................64
4.26 Perceived Obstacles to Pursuing an MSDH Degree; Majority Responses ...............64
CHAPTER 1

INTRODUCTION

History

Dental hygiene has a history that dates to the early twentieth century. A Connecticut dentist, Dr. Alfred Civilion Fones, who was a legacy to dentistry, is considered the founder of the profession (1). Dr. Fones adopted the idea that preventive dental services and patient education about oral health would contribute to a reduction in dental disease. It was his theory that prophylactic services could be provided by a dental aide. He trained his cousin, Irene Newman, to be his first assistant by teaching her to ‘clean teeth’ by removing calculus and plaque from patients’ teeth. In 1913, with $46,000 in funds and donations, Dr. Fones opened the Fones School of Dental Hygiene in the rear of an old carriage house in Bridgeport, Connecticut (1). Thirty-four women were accepted into the first class. Courses included Tooth Anatomy, Histology, and Clinical Practice. With this informal training, the dental hygiene profession was born (1).

The first class of sixteen dental hygienists graduated from the Fones program completed their education in 1915. Subsequently Dr. Fones traveled nationwide to lecture and share his ideas with others (1). The profession that began with 16 hygienists in 1915 has swelled to a licensed profession of more than 158,000 dental hygienists in the United
States in the year 2004 (2,3). Today, these professionals are educated in 266 accredited dental hygiene programs in 50 States and the District of Columbia (2). These education programs include Associate, Baccalaureate and Degree Completion programs. Together these programs graduate approximately 5,000 new hygienists each year (4). Dental hygienists are required to pass a national written examination and a state or regional clinical examination in order to obtain a license for practice (5). The profession is presently licensed to perform a variety of oral healthcare services and assessments in every state and the District of Columbia in the United States.

The Profession of Dental Hygiene

Dental hygienists provide oral health expertise in a variety of workplace settings. According to the American Dental Hygienists’ Association (ADHA), as clinicians, hygienists work in private dental offices, school based dental clinics, hospitals, managed care organizations, community health centers, correctional institutions and nursing homes. In addition to direct patient care, hygienists work in government, sales or marketing positions, or as educators, researchers, administrators, health policy makers, managers, advocates, or consultants (6).

Since the early 1900s, society has seen many changes directly affecting the health care professions. The most important change has been the population’s access to health care, specifically, oral health care. Oral Health in America: A Report of the Surgeon General alerted Americans to the importance of oral health in their daily lives (7). The Report, issued in May 2000, provided state-of-the-science evidence on the integral
relationship between oral health and general health, including recent reports of associations between chronic oral infections and diabetes, osteoporosis, heart and lung conditions, and certain adverse pregnancy outcomes. The text further detailed how oral health is promoted, how oral diseases and conditions are prevented and managed, and what needs and opportunities exist to enhance oral health (7). Americans face an epidemic of gingivitis (gum disease), periodontitis (bone disease) and dental decay. Decay is the major cause of tooth loss in children, while periodontitis is the major cause of tooth loss in adults. Fifty percent of all American youths ages 17 and under have had decay in their permanent teeth, while 75 percent of the U.S. population has had some form of gingivitis (8).

Another change that has affected dental care has been an increased emphasis on wellness and prevention. Oral diseases and disorders in and of themselves affect health and well-being across the life span (7). Research has identified gingivitis as a potential risk factor for heart and lung disease, diabetes, pre-mature and low birth-weight babies. If left untreated, poor oral health can increase the risk of developing life-threatening diseases that are responsible for the deaths of millions of Americans each year (8).

Despite the connection between poor oral health and a host of systemic diseases and conditions, disparities in access to oral health care services exist today (6). The relationship between oral health/disease and systemic health/disease has been documented by research making the dental hygienist’s role in disease prevention more important than ever before (7).
Furthermore, research has demonstrated that oral disease rates and oral health needs are highest in low income and special needs populations (6). Access to preventative and therapeutic oral health care must be increased. Because of the dental hygiene profession’s increasing importance to the health of society, the 2003 American Dental Education Association (ADEA) President, Pamela Zarkowski, believes it is necessary to ensure that qualified dental hygiene professionals possess sufficient knowledge and skills for exercising professional judgment to improve the oral health care of the public (9).

Statement of the Problem

According to the U. S. Bureau of Labor Statistics, the demand for dental hygienists will grow 27% by 2014 (10). As the discipline evolves, graduate education in the science of dental hygiene is becoming the focus of discussion for both medical and dental professions. Dental hygienists are increasingly seeking advanced education in dental hygiene, business, marketing, public health, public administration, leadership and education (11). One advanced degree, a Master of Science Degree Program in Dental Hygiene, provides the dental hygienist opportunities to be involved in experiences which contribute to the dental hygiene scientific body of knowledge and enables the dental hygienist to assist in and/or conduct research and theory development in the dental hygiene science, provides career opportunities in alternative practice settings, and builds a foundation for future doctoral education in related disciplines (12). A Master of Science Degree Program in Dental Hygiene would also provide the dental hygienist with the education and credentials to fill the faculty position needs of the undergraduate dental hygiene programs in the U.S.
Two hundred and sixty-six dental hygiene programs exist in the United States with twelve of those programs located in the state of Ohio. There are ten Master of Science in Dental Hygiene (MSDH) degree programs located in the United States. At this time, a MSDH degree program does not exist in Ohio. This study will look at the need for a MSDH degree program in Ohio.

Overview of Research

This descriptive study consists of a survey of dental hygienists licensed in Ohio and an interview of Baccalaureate Degree Dental Hygiene program directors in Ohio and the bordering states regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The overarching goal of this study is to identify if there is a perceived need for a MSDH degree program in the State of Ohio.

Dental hygienists licensed in the State of Ohio and Baccalaureate degree dental hygiene program directors will be surveyed to investigate each objective:

1. To determine if dental hygienists licensed in Ohio perceive personal and professional advantages in pursuing an MSDH degree.
2. To determine the levels of perceived obstacles in pursuing an MSDH degree by dental hygienists licensed in Ohio.
3. To determine if dental hygienists licensed in Ohio perceive a need for a MSDH degree program in Ohio.
4. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession.
5. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio.

6. To determine the perceptions of the Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field.

7. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio.
Definition of Terms

Dental Hygienist: The professional roles of a Dental Hygienist according to the American Dental Hygienists’ Association include, but not limited to, those of clinician, educator, advocate, administrator/manager, researcher, with public health being an integral component of all these roles (13). Dental hygienists practice in a variety of settings providing preventive oral health education and oral health services including oral prophylaxis, periodontal scaling, root debridement, therapeutic and selective polishing of the teeth, applies fluoride varnishes and dental sealants. The dental hygiene process of care includes a dental hygiene assessment, a dental hygiene diagnosis, planning, implementation and evaluation (14).

Master of Science in Dental Hygiene (MSDH): According to the American Dental Hygienists’ Association, objectives of the MSDH degree program are to provide the student with advanced knowledge in dental hygiene education to assume positions in teaching allied dental education programs, administration, research, and management. Curriculum emphasizes advanced knowledge and skill development in several areas including education, leadership, administration, and research related to allied dental education and practice (15). In many cases the curriculum is interdisciplinary in that courses are taken in the schools of Dentistry, Public Health, and Education.
Allied Health Professional: According to The Association of Schools of Allied Health Professions, allied health professionals are involved with the delivery of health or related services pertaining to the identification, evaluation and prevention of diseases and disorders; dietary and nutrition services; rehabilitation and health systems management, among others. Allied health professionals, to name a few, include diagnostic medical sonographers, dietitians, medical technologists, occupational therapists, physical therapists, radiographers, respiratory therapists, and speech language pathologists. Allied health professions also include health providers in the areas of athletic training, circulation technology, health information and management systems and health sciences.

The American Dental Hygienists’ Association (ADHA): Organization formed in 1923 to develop communication and mutual cooperation among dental hygienists. Today, ADHA is the largest national organization representing the professional membership interests of the more than 120,000 registered dental hygienists in the United States. The mission statement is to improve the public's total health, and to advance the art and science of dental hygiene by ensuring access to quality oral health care, increasing awareness of the cost-effective benefits of prevention, promoting the highest standards of dental hygiene education, licensure, practice and research and representing and promoting the interests of
dental hygienists. ADHA is a tripartite organization structured on three levels: Component, Constituent and National.

Accreditation: Accreditation is a voluntary system, acknowledged by the U.S. Department of Education, for recognizing educational institutions and professional programs for a level of performance, integrity and quality that entitles them to the confidence of the educational community and the public (16). Initiated in the early 1900s, accreditation of specialized professional and occupational schools, such as dentistry and its related occupations, is undertaken primarily to provide the public with assurance of the quality of the educational preparation of that profession's members. It is a voluntary peer review mechanism that includes the involvement of members of the discipline, the broad educational community, employers, practitioners, the dental licensing community and public members. All of these groups participate in a process designed to ensure educational quality.

American Dental Association Commission on Dental Accreditation (ADA CODA): The mission of the American Dental Association Commission on Dental Accreditation (ADA CODA) is to serve the public by establishing, maintaining and applying standards that ensure the quality and continuous improvement of dental and dental-related education and reflect the evolving practice of dentistry. The scope of the ADA CODA encompasses dental, advanced dental and allied dental
education programs. Activities for the Commission would include formulating and approving accreditation standards by which programs are evaluated; establishing policies and procedures for conducting the accreditation program; determining and publicizing program accreditation status; and appointing consultants and site visitors to assist in accreditation activities.

American Dental Education Association (ADEA): The American Dental Education Association (ADEA) is involved the development of faculty, staff, and administrators as the key to improving dental education. Taken from the ADEA website, the mission of the ADEA is to lead individuals and institutions of the dental education community to address contemporary issues influencing education, research, and the delivery of oral health care for the improvement of the health of the public. The ADEA represents or is composed of all U.S. and Canadian dental schools, advanced dental education programs, hospital dental education programs, allied dental education programs, faculty, and students.

Need: According to Witkin and Altschuld, need is considered to be a discrepancy or gap between “what is,” or the present state of affairs in regard to the group and situation of interest, and “what should be,” or a desired state of affairs (17). Kaufman defines need as the discrepancy between current and desired results or consequences (18).
CHAPTER 2

REVIEW OF THE LITERATURE

The literature suggests that the purposes of a Master of Science Degree Program in Dental Hygiene are to prepare dental hygienists to teach, develop dental health programs in a variety of settings, conduct research, and provide care as collaborative dental hygiene practitioners (19). The Master of Science Degree Program in Dental Hygiene enables the dental hygienist to build on the knowledge gained in baccalaureate degree dental hygiene education (12). For example, it provides the dental hygienist the opportunities to be involved in increased decision making and problem solving skills scenarios. These experiences contribute to the dental hygiene scientific body of knowledge and enables the dental hygienist to assist in and/or conduct research and theory development in the dental hygiene science, provides career opportunities in alternative practice settings, and builds a foundation for future doctoral education in related disciplines (12).

Faculty Shortage

In 1994, a study revealed that there is a national shortage of master’s-prepared dental hygienists and there are not enough master’s prepared dental hygienists to fill the faculty needs of the undergraduate dental hygiene programs (20). Then in 1999, The American Association of Dental Schools Task Force, now the American Dental Education Association (ADEA), concluded, from a survey of U.S. Dental Schools in
1999, that education is in crisis, and a shortage of faculty to meet the educational needs of students is certain (12). In 2000, the ADEA conducted a follow-up survey to assess the shortage (19). The study revealed a sense of urgency to address the shortage of allied dental faculty. In 2002, the ADEA conducted a third survey, which revealed similar results as a national shortage of master’s-prepared dental hygienists and there are not enough master’s prepared dental hygienists to fill the faculty needs of the undergraduate dental hygiene programs (19). These three studies identified the major reasons for faculty shortage including: retirement, faculty accepting a position at another institution and a restricted supply of qualified faculty with appropriate credentials.

These studies identified critical credentials as academic preparation, clinical experience, research experience and the ability of faculty to achieve a balance of academic activity consisting of teaching, research, and institutional service through patient care (21).

The American Association of Dental Schools Task Force also identified ways in which schools were preparing and recruiting faculty. Research and teaching internships within the programs/dental schools were identified as the primary means of stimulating students to consider academic careers. Another means of promoting interest in academic careers include role modeling and/or faculty mentoring programs. Some schools offer master’s degree programs in dental hygiene with a special track in dental hygiene education as a means of increasing the number of qualified faculty (21). In response to these surveys and their findings, the ADEA has made a commitment to address these current and emerging needs (9).
A 2004 survey report of the current status of allied dental faculty which surveyed 554 allied dental faculty revealed that dental hygiene faculty shortages can in large part be attributed to a lack of master’s programs in dental hygiene (19). A career and degree satisfaction study in 2000, which surveyed individual graduates of MSDH Degree programs, concluded that without adequate number of faculty, dental hygiene programs will contribute little to the oral health of the public and make no impact in the public’s access to quality care (22).

Access to Quality Care

In 2000, the U.S. Department of Health and Human Services issued a report Oral Health in America: A Report of the Surgeon General. This report described objectives and goals building on Healthy People 2000, and Healthy People 2010: National Health Promotion and Disease Prevention Objectives. Refer to Table 2.1 for Healthy People 2010 Oral Health Objectives.
<table>
<thead>
<tr>
<th>Number</th>
<th>Objective Short Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-1</td>
<td>Dental caries experience</td>
</tr>
<tr>
<td>21-2</td>
<td>Untreated dental decay</td>
</tr>
<tr>
<td>21-3</td>
<td>No permanent tooth loss</td>
</tr>
<tr>
<td>21-4</td>
<td>Complete tooth loss</td>
</tr>
<tr>
<td>21-5</td>
<td>Periodontal diseases</td>
</tr>
<tr>
<td>21-6</td>
<td>Early detection of oral and pharyngeal cancers</td>
</tr>
<tr>
<td>21-7</td>
<td>Annual examinations for oral and pharyngeal cancers</td>
</tr>
<tr>
<td>21-8</td>
<td>Dental sealants</td>
</tr>
<tr>
<td>21-9</td>
<td>Community water fluoridation</td>
</tr>
<tr>
<td>21-10</td>
<td>Use of oral health care system</td>
</tr>
<tr>
<td>21-11</td>
<td>Use of oral health care system by residents in long-term care facilities</td>
</tr>
<tr>
<td>21-12</td>
<td>Dental services for low-income children</td>
</tr>
<tr>
<td>21-13</td>
<td>School-based health centers with oral health component</td>
</tr>
<tr>
<td>21-14</td>
<td>Health centers with oral health service components</td>
</tr>
<tr>
<td>21-15</td>
<td>Referral for cleft lip or palate</td>
</tr>
<tr>
<td>21-16</td>
<td>Oral and craniofacial State-based surveillance system</td>
</tr>
<tr>
<td>21-17</td>
<td>Tribal, State, and local dental programs</td>
</tr>
</tbody>
</table>

Table 2.1 Healthy People 2010 Oral Health Objectives.

Specifically, Healthy People 2010 was developed through a broad consultation process, built on scientific knowledge and designed to measure programs over time. The first ever description on oral health from the federal government was included in this report. The central message of the report was that oral health is essential to general health with goals and objectives to obtain that health. The report revealed that oral health is a
major unmet need in the US, specifically stating that more than 80 percent of dental decay was found in 25 percent of the population (7). Moreover, these populations of people are from lower-income households and ethnic minorities and, in many cases, have special needs (23). The report concluded that the nation’s future oral health status and the integration of oral health with general health, social services and education is a complex picture and must be led by the dental profession (7).

The recognized and published relationships of oral health to total general health underscore the need for quality health care to be delivered by qualified dental hygienists. This well qualified dental hygienist necessitates a higher level of degree to benefit the public in a way that reduces inequalities of health care access. Each goal from the Oral Health Section of Healthy People 2010 could be accomplished utilizing the skills of a master’s level degree prepared dental hygienist (7).

**Advancing Dental Hygiene as a Profession**

Each health profession is responsible for developing the body of knowledge necessary for the delivery of care and service; dental hygiene is no exception. ADHA regularly holds national conferences focusing on dental hygiene research and theory development and has developed a research agenda for the future (24). A recommendation proposed at a recent conference was the need for dental hygiene scholars to focus on dental hygiene theory development based on the documentation of the federal government oral health disparities and the science of linking oral health with general health (25). Ideally, the most appropriate settings to develop and validate dental hygiene theories would be the MSDH programs offering advanced degrees in dental hygiene (24).
Nationally, the majority of faculty members in dental hygiene academia hold an advanced degree in dental hygiene or other areas such as education, public health, public administration, education administration, allied health, etc. (12). It has been suggested that the effect of the MSDH degree on the quality and credibility of the dental hygiene educational system is also apparent because, universally, an earned master’s degree in the discipline is considered to be the minimal preparation for a qualified faculty member (15). However, due to the fact that the MSDH programs are not accredited, a master’s degree is not required to become faculty (15). It has also been suggested that as the number of graduates of the MSDH increase, a redefinition of the dental hygiene profession should occur. This implies that the increase in MSDH degree prepared faculty will directly affect dental hygiene education which in turn will directly affect the dental hygiene science and practice. In fact, research in dental hygiene supports the need for the establishment of a greater quantity of graduate level programs (11). According to the ADEA, who is involved in the development of faculty, staff, and administrators as the key to improving dental education, has stated that the future professional growth of dental hygiene depends on the development of quality graduate education, as well as research to increase the body of knowledge as it relates to the advancement of the discipline. Dental hygiene academia bears the responsibility of not only educating future dental hygiene professionals, but advancing the knowledge of dental hygiene science and practice to ultimately advance the profession of dental hygiene (12).

Existing Dental Hygiene Graduate Programs

Current literature reveals there are ten Master’s degree programs in dental hygiene in the United States (26). Refer to Figure 2.1 for a map of Master’s of Science in Dental
Hygiene Degree Programs in the United States.

Figure 2.1 Masters of Science in Dental Hygiene Degree Programs in the United States indicated by a red dot (•).

In the Western portion of the U.S., the University of Texas-Health Science Center at San Antonio, Baylor College of Dentistry also located in Texas, University of New Mexico and Idaho State University offer specialty tracks in the following areas: health promotion/education, management/administration, research, advanced clinical practice, and consumer advocacy (15). Within these programs, coursework is offered through a mixture of classroom and web-based instruction. In the Midwest, the University of Michigan and the University of Missouri-Kansas City offers students the option of
traditional instruction verses web-based instruction (15). Tracks within the program include education, research, health services administration, special patient care and gerontology. The Eastern region of the U.S. includes The University of Maryland, West Virginia University and Old Dominion University. Old Dominion has the only accelerated Bachelor of Science to Master of Science Dental Hygiene Degree Program (15). To attract undergraduate students in the master’s program, the University allows students to “accelerate” through the baccalaureate to the master’s program using a common twelve hour graduate credit core toward each degree (15). Students can work on graduate level courses while taking undergraduate courses which ultimately results in completing the master’s degree in less time and money. In the South, the University of North Carolina at Chapel Hill emphasize academic courses, independent study, research and practical experience (15). With each of these programs, curriculum descriptions in the college catalogs boast that graduate candidates will be prepared to meet the present demand for dental hygiene leaders, practitioners, educators, oral health promoters, administrators/managers and researchers (26).

**Obstacles regarding the MSDH Degree**

According to the literature, dental hygienists possessing a MSDH degree are not seeking faculty positions. Due to expanding career opportunities in private industry and research, recent graduates of MSDH programs are finding more lucrative positions in nontraditional settings, not in academic settings (22). The results of a 1999 survey assessing two hundred and twenty-two dental hygiene program directors and their perceptions of graduate dental hygiene education indicated that the existing MSDH degree programs are experiencing difficulty recruiting students into the program because
hygienists are not aware of the graduate opportunities available to them in dental hygiene (11). The enrollment in MSDH programs has declined over the past two decades (24). According to a 2000 study which surveyed 252 graduates of MSDH degree programs, between the years of 1980 and 1995, respondents stated that many hygienists with master’s degrees have the degree in areas other than hygiene, because MSDH programs are not easily accessible (24). According to that same study, respondents stated that with only ten programs in the US, many hygienists cannot relocate for graduate school due to family responsibilities and or financial constraints (22). Respondents stated another reason for dental hygienists not pursuing MSDH degrees is that the majority of new dental hygiene programs are two year associate or certificate programs. They felt that these programs are not required to employ master’s degree prepared faculty, so hygienists who want to teach in those programs do not feel required to pursue a master’s degree (22). Finally, opinions show that the widening gap in salaries between private practice and education has made it less attractive to become an educator. Salary is typically what stops hygienists from pursuing a career in education (19). Funding for schools has been a smaller percentage of the state budget, and administrators responsible for dental hygiene programs have to find ways for programs to help pull their budgetary weight-sometimes at the expense of not increasing faculty base salaries (19).

Other Health Professions

According to the ADHA, advanced education and performing services to meet and exceed the standards of care determine the future of the profession and the professional (25). Therefore, advancement requires more than basic standard of care skills (27). It requires graduate education, in other health professions, has traditionally
been viewed as a tool to improve career opportunities. In nursing for example, the purpose of master’s education has been described as the mechanism by which they prepare nursing leaders (28). This statement by one nursing faculty member may be applicable to other healthcare professions including the profession of dental hygiene,

“They are the clinical specialists (advanced nurse practitioners), teachers, supervisors, and administrators whose special knowledge and skills are required now, and will continue to be required in the future in order to meet our nation’s nursing needs” (28).

Dental hygiene is facing similar challenges as nursing regarding faculty shortages. As the nursing shortage continues to increase, the number of qualified nursing faculty continues to decrease (29). Nurses too are finding more lucrative positions outside of academia. Both professions agree that the need to maintain current standards and not fill faculty positions with individuals inadequately prepared for academia is important (30).

Research Approach

A survey and interview was used to collect data from two populations. The survey, a 20 item questionnaire was used to collect perceptions of licensed dental hygienists perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The questionnaire consisted of four basic sections which allowed for the correlation of demographics regarding licensed Ohio dental hygienists and their opinions on the need for a MSDH program in Ohio.
The interview was used to obtain detailed information about a particular topic. The investigator, served as the facilitator. An advantage of the interview is that the researcher can probe for clarification and solicit more detailed responses to have higher face validity. (31). The investigator coded and summarized the data for analysis and discovery. The interview was transcribed with all participants’ permission, omitting the names of the speakers (31).

Limitations of the Study

According to Dillman, limitations exist with any type of method used for conducting a study (32). In conducting a questionnaire, a major concern is having a representative sample with a complete list of the population. One limitation to this study is the potential of not having the most up to date list. The Ohio Dental Board requires that you notify the board in writing, with any address or name changes, within two weeks of that change. With this questionnaire there is a chance that during the period of time between obtaining the list of names and addresses and the actual mailing of the questionnaires, names or addresses could have changed. Another limitation to this study is the population size. Due to financial and time constraints of the study, it was not possible to survey a census of the population. Another limitation to this study is that according to Dillman, regarding the success of utilizing a questionnaire to obtain answers, a low capability rating is given to success with open ended questions, success with controlling sequence of questions or success with tedious or boring questions (32). Dillman also rates the speed of implementation as low (32). A limitation for both the mail questionnaire and the telephone interview is the potential for social desirability bias. Respondents may have the tendency to offer socially desirable answers (32). Another
limitation for the interview, which includes only baccalaureate degree dental hygiene program directors, in Ohio and the bordering states which include, Indiana, Kentucky, Michigan, Pennsylvania and West Virginia (26), means that the results of this interview can not be generalized to other dental hygiene programs in Ohio nor other states. Because the study only seeks to identify information from Baccalaureate directors in Ohio and the surrounding states this limitation is evident and acceptable.

Conclusion

Given the recent attention to a greater need for access to dental and oral health care services and the supportive documentation by the US Surgeon General’s Report on Oral Health, it is becoming apparent that dental hygiene as a health care profession is an integral part of the total health care system with a goal to prevent disease and promote the wellness of the population. Since its inception, the dental hygiene profession has worked to increase the access and decrease barriers to dental hygiene care, and continue to provide optimal standard of care based on the dental hygiene sciences, research, theory and practice. Literature documents that MSDH degree prepared dental hygienists are needed to meet the professional and educational concerns. The recruitment of highly qualified dental hygienists into faculty positions in dental hygiene education programs is also a concern. As dental hygiene literature based knowledge advances and the educational preparation for entry into the profession evolves, the dental hygiene curriculum and levels of educational preparation must be redesigned to reflect these changes. Implementing curricular models for master’s programs in dental hygiene will allow greater opportunities for advancing the art and science of the profession.
A review of the literature reveals no research assessing the perceptions of dental hygienists’ licensed in Ohio regarding need for or want for a master’s degree program in Ohio. The need to investigate opinions of dental hygienists’ is apparent. This descriptive study will consist of a questionnaire of dental hygienists licensed in Ohio and a structured interview of Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states (Indiana, Kentucky, Michigan, Pennsylvania and West Virginia) (26), about the need perceptions of a Master’s of Science in Dental Hygiene degree program in Ohio.

Objectives of the Study

1. To determine if dental hygienists licensed in Ohio perceive personal and professional advantages in pursuing an MSDH degree.

2. To determine the levels of perceived obstacles in pursuing an MSDH degree by dental hygienists licensed in Ohio.

3. To determine if dental hygienists licensed in Ohio perceive a need for a MSDH degree program in Ohio.

4. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession.

5. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio.

6. To determine the perceptions of the Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, regarding the advantages and
disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field.

7. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio.
CHAPTER 3

METHODOLOGY

The study consisted of two parts: a questionnaire and an interview. The 20 item questionnaire was used to assess Ohio licensed dental hygienists perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The four question interview was developed to assess baccalaureate dental hygiene program directors perceptions of whether or not an MSDH degree is important to the dental hygiene profession, if there are any advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field, if the directors perceive that an MSDH degree program is needed in Ohio and if the directors perceive that students in their programs would be interested in obtaining their MSDH degree a program existed in Ohio.

Objectives of the Study

1. To determine if dental hygienists licensed in Ohio perceive personal and professional advantages in pursuing an MSDH degree.

2. To determine the levels of perceived obstacles in pursuing an MSDH degree by dental hygienists licensed in Ohio.
3. To determine if dental hygienists licensed in Ohio perceive a need for a MSDH degree program in Ohio.

4. To determine if baccalaureate degree dental hygiene program directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession.

5. To determine if baccalaureate degree dental hygiene program directors, in Ohio and the bordering states, perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio.

6. To determine the perceptions of the baccalaureate degree dental hygiene program directors, in Ohio and the bordering states, regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field.

7. To determine if baccalaureate degree dental hygiene program directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio.

This chapter will be divided into two sections. The first section will describe the procedures for the survey portion of the study. Those procedures include subject selection and sampling, development of the survey, reliability and validity, administration of the survey, non-respondents, confidentiality and data analysis. The second section will describe the procedures for the interview portion of the study. Procedures for the interview include subject selection and sampling, development of interview questions, validity, administration of the interview and its transcription.
Survey

Subject Selection and Sampling

Dental hygienists’ licensed in Ohio were randomly selected from a list, acquired from the Ohio State Dental Board, and through a mailed survey their perceived need for a MSDH program in Ohio was assessed. The list was acquired on March 15, 2006. The dental hygienists’ were defined as those licensed in Ohio although they may or may not be living or working in Ohio.

Generally, survey designs try to minimize both alpha error (finding a difference that does not actually exist in the population) and beta error (failing to find a difference that actually exists in the population) (33). The alpha level used in determining sample size in most educational research studies is either .05 or .01. In Cochran’s formula, generally an alpha level of .05 is acceptable for most research with population sizes above 120 (34).

To get an adequate assessment for this size population, using Cochran’s formula, the most appropriate sample, for this study, was .05 percent of the population. With a total population size of 7286, the sample was calculated to be 378 subjects. A sample of 378 dental hygienists was selected by means of a simple random sample. Subject’s names were drawn, from a container one at a time, making sure to place the name back in the container to allow for equal opportunity in selection. The names were recorded as a participant and given a subject number.
Development

A 20 item questionnaire was used to assess licensed dental hygienists' perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The instrument was developed using suggestions for instrument construction by Dillman (32). The questionnaire consisted of four basic sections. The first and second sections utilized a Likert scale to assess perceived value and perceived personal obstacles to gaining a MSDH degree. Both the first and second sections rated the values and obstacles in order of significance from most important to least important. The third section of the questionnaire assessed personal need for a MSDH Degree. The fourth section collected data on demographics. The four basic sections allowed for the correlation of demographics of licensed Ohio dental hygienists and their opinions on the need for a MSDH program in Ohio. See Appendix A for Survey.

Content Validity

A much cited definition of validity is that of Hammersley's,

"An account is valid or true if it represents accurately those features of the phenomena, that it is intended to describe, explain or theorize." (35)

Validity of the questionnaire was established in two ways. Face validity was established through a field test with a sample of convenience utilizing ten Master’s Degree prepared dental hygienists in an educational setting. Validity is established by content experts so a questionnaire related to the profession of dental hygiene should be
reviewed by dental hygiene professors because it is assumed that they are knowledgeable to what is important to the discipline.

The panel assessed the suitability and readability of the instrument as well as its ability to measure what it intended to measure. They were asked to comment on the instrument’s clarity. Simple choice of wording changes were made, panel members suggested the underlining of certain key words to make the question clearer and the addition/subtraction of commas or hyphens which made no significant content changes to the questionnaire. The panels of experts were also asked to establish content validity of the instrument. The panel of experts made no significant changes to content.

Reliability

Reliability is defined by Hammersley as “An agreement between two efforts to measure the same thing with the same methods, the ability to measure consistently” (35). Internal reliability of the questionnaire was established by computing a Cronbach’s alpha through a pilot test utilizing twenty, randomly sampled Ohio licensed dental hygienists. This ensured that the instrument will consistently measure what we are purporting it is measuring. The pilot study was mailed on February 1, 2006. Fourteen responses were received which resulted in a 70% response rate. These twenty Ohio licensed dental hygienists were not included in the actual survey.

Administration

A randomly selected sample of 378 licensed dental hygienists was identified from a list of current dental hygienists licensed in Ohio. Addresses were obtained, from the Ohio State Dental Board for dental hygienists licensed in the state of Ohio and surveys were sent to those with valid, complete addresses. Those with incomplete addresses were
discarded yielding a total population of 7286. To get an adequate assessment for this size population, using Cochran’s formula, the most appropriate sample, for this study, was .05 percent of the population. With a total population size of 7286, the sample was calculated to be 378 subjects. An initial mailing was performed on April 3\textsuperscript{rd} 2006.

**Non-respondents**

One week after initial mailing of the survey a reminder postcard was sent to all participants. This card served as both a thank you for those who responded already and as a friendly reminder for those who had not. Three weeks after the initial mailing a letter and replacement survey were sent to all non-respondents. Any first or second mailing questionnaires not returned within the three week period following the second mailing were considered non-respondents.

Questionnaires returned due to address change or unable to forward was noted as returned and the survey was discarded. Any surveys not completed correctly or in entirety were noted as a respondent but answers were not used and the survey was discarded.

**Confidentiality**

Anonymity was maintained by numbering the questionnaire’s on the inside front corner of the questionnaire cover. The number was cut off upon return of the questionnaire, separating the subjects’ answers from the three digit number and identification. The removed corner was matched to verify return of the questionnaire. All questionnaires with three digit numbers were kept with the principal investigator in a locked box.
Data Analysis

Results were analyzed using Statistical Package for the Social Sciences (SPSS) version 14.0 by Statistical Package for the Social Sciences, Inc. to analyze demographics. Mean and standard deviation were calculated for scores from Likert Scale items.

Interview

Subject Selection and Sampling

The interview target group was dental hygiene baccalaureate degree program directors and was selected because of their credentials and position. Each director has a master’s degree and presumably each director can give an educated opinion as to their perception of the significance or the necessity of having an MSDH personally or in the State of Ohio. There are nine dental hygiene baccalaureate programs in Ohio and the bordering states of Indiana, Kentucky, Michigan, Pennsylvania and West Virginia (26): The Ohio State University, University of Southern Indiana, University of Louisville, Western Kentucky, University of Detroit Mercy, University of Michigan, the University of Pittsburgh, West Liberty State College and West Virginia University. To obtain participants, a recruitment letter was sent one month prior to the interview. Based on the program directors’ schedule and availability, the directors perceived needs were assessed by an interview through email. See Appendix B recruitment letter.

Development

A four question interview was developed to assess dental hygiene program directors perception of whether or not an MSDH degree is important to the dental hygiene profession and if the directors perceive that students in their programs would be interested in obtaining their MSDH degree a program existed in Ohio.
The interview also asked questions to determine the perceptions regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field and to determine perception of whether or not an MSDH degree program is needed in Ohio. The interview was developed using data from the literature and suggestions for interviews by Altschuld and Witkin (17).

The interview consisted of dental hygiene baccalaureate program directors from nine dental hygiene baccalaureate programs in Ohio and the bordering states of Indiana, Kentucky, Michigan, Pennsylvania and West Virginia (26). Four questions were utilized through email and telephone conversations to collect this data. See Appendix C for interview questions.

Validity

A face validity study was performed utilizing three Master’s Degree prepared dental hygienists in an educational setting. The panel assessed the suitability and readability of the four interview questions as well as its ability to measure what it intended to measure. They were asked to comment on the question clarity. Respondents suggested no changes to interview questions.

Reliability

A pilot study was performed utilizing three dental hygiene baccalaureate program directors from states not included in this interview. Directors were asked if the four questions consistently measured what we are purporting it is measuring. Respondents suggested no changes to interview questions.
Administration

A census of dental hygiene baccalaureate program directors in Ohio and its bordering states was performed on April 5, 2006. A letter was sent two weeks prior to the date of the scheduled interview to inform of the future interview and allow the directors access to the questions prior to the interview. Subjects were advised that this interview was a part of a research study and being transcribed for future evaluation. The census was in the form of an interview conducted by telephone or through emails. Based on the program directors’ schedule and availability, the directors perceived needs were assessed by an interview through email or telephone. Eight of the nine program directors responded by email, yielding a response rate of 89%.

Transcription

Transcription of the interview was based on word for word emails. For verification purposes and to validate the interpretation of the emails, three people reviewed the transcription.
CHAPTER 4

RESULTS

The purpose of this chapter is to present the results of the statistical analysis of the data collected from the 20 item questionnaire used to assess licensed dental hygienists perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. This chapter will also present the results of the four question interview developed to assess the perceptions of licensed dental hygiene program directors regarding if a MSDH degree is important to the dental hygiene profession, if there are any advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field, if the directors perceive that an MSDH degree program is needed in Ohio and if the directors perceive that students in their programs would be interested in obtaining their MSDH degree a program existed in Ohio.

The chapter is divided into five sections. The first section describes the response rate of the questionnaire. The second section presents results of statistics used to describe the questionnaire study population. Section three discusses results of statistical tests used to determine the reliability of the questionnaire instrument used in the study. The fourth section presents results of statistical analyses for each of the survey questions. A table follows each statistical analysis for each survey question. The fifth section will describe the results and analysis of the four question interview.
Response rate

A 20 item questionnaire used to assess Ohio licensed dental hygienists’ perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio was sent to 378 dental hygienists. An initial mailing was performed on April 3, 2006. One week after initial mailing of the survey a reminder postcard was sent to all participants. This card served as both a thank you for those who had previously responded and as a friendly reminder for those who had not. Three weeks after the initial mailing a letter and replacement survey were sent to non-respondents. Any first or second mailing questionnaires not returned within the three week period following the second mailing were considered non-respondents. Of the 378 questionnaires mailed, 249 questionnaires were returned, making the response rate 65%. Any first or second mailing questionnaires not returned within the three week period following the second mailing were considered non-respondents.

Profile of the study population

Of the 249 participants the mean age for respondents was 41.63. Minimum age was twenty-two and maximum age was sixty-five. Of the 249 participants, 100% of the respondents were female. Also, of the 249 participants 68.8% had associate degrees or a certificate in dental hygiene, 28.7% held bachelor degrees in dental hygiene and 2.4% held a master’s degree in dental hygiene. Refer to Figure 4.1.
Figure 4.1 Highest Degree of Dental Hygiene Education

Forty-nine (19.8%) of the participants have been licensed dental hygienists for five years or less. Thirty-seven (15%) of the participants have been licensed dental hygienists for six to ten years. Fifty (20.2%) have been licensed for eleven to twenty years and one hundred and eleven (44.9%) have been licensed dental hygienists for twenty-one or more years. Refer to Figure 4.2.
Figure 4.2 Number of Years Licensed as a Dental Hygienist

One hundred and twenty-two (49.4%) of the participants work fewer than 32 hours per week as a dental hygienist. One hundred and two (41.3%) participants work 32 or more hours per week as a dental hygienist and twenty-three (9.3%) do not currently practice. Refer to Figure 4.3.
The majority of respondents, two hundred and fourteen (86.6%) describe their primary work setting as private practice. Ten (4.0%) describe their primary work setting as an educational setting. One participant, (0.4%) described their primary setting as a government setting. Eight participants (3.2%) selected “other” as their work setting and fourteen (5.7%) participants stated they do not currently practice (Figure 4.4). It should be noted that “primary work setting” is defined as majority of hours worked per week.
Majority of respondents, two hundred and twenty-two (89.9%) practice primarily in Ohio. One participant (0.4%) practices primarily in Pennsylvania. One participant (0.4%) practices primarily in West Virginia. One participant (0.4%) practices primarily in Kentucky. Three participants (1.2%) practice primarily in Indiana. Two participants (.8%) practice primarily in Michigan and seventeen of the participants (6.9%) practice primarily in other states (Figure 4.5). It should be noted that “primary work setting” is defined as majority of hours worked per week.
Figure 4.5 Primary State of Practice

Instrument reliability and validity

The survey was tested for internal consistency using Cronbach’s alpha test. The internal consistency reliability of items one through seven was 0.850 (Table 4.1). Items one through seven targeted participants’ perceptions regarding the values of obtaining a master’s of science degree in dental hygiene. This statistic shows high internal consistency reliability with these items. The Inter-Item Correlation Matrix (Table 4.2) shows no 1.0 or 0.0 as well as no 8.0 or 9.0. These statistics show a high inter-item correlation. Table 4.3 shows total statistics for each item.
<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.850</td>
<td>.850</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 4.1 Cronbach’s Alpha for Items 1-7

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>1.000</td>
<td>.539</td>
<td>.557</td>
<td>.304</td>
<td>.626</td>
<td>.439</td>
<td>.477</td>
</tr>
<tr>
<td>Q2</td>
<td>.539</td>
<td>1.000</td>
<td>.472</td>
<td>.279</td>
<td>.481</td>
<td>.451</td>
<td>.465</td>
</tr>
<tr>
<td>Q3</td>
<td>.557</td>
<td>.472</td>
<td>1.000</td>
<td>.262</td>
<td>.413</td>
<td>.372</td>
<td>.422</td>
</tr>
<tr>
<td>Q4</td>
<td>.304</td>
<td>.279</td>
<td>.262</td>
<td>1.000</td>
<td>.403</td>
<td>.337</td>
<td>.378</td>
</tr>
<tr>
<td>Q5</td>
<td>.626</td>
<td>.481</td>
<td>.413</td>
<td>.403</td>
<td>1.000</td>
<td>.524</td>
<td>.592</td>
</tr>
<tr>
<td>Q6</td>
<td>.439</td>
<td>.451</td>
<td>.372</td>
<td>.337</td>
<td>.524</td>
<td>1.000</td>
<td>.587</td>
</tr>
<tr>
<td>Q7</td>
<td>.477</td>
<td>.465</td>
<td>.422</td>
<td>.378</td>
<td>.592</td>
<td>.587</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 4.2 Inter-Item Correlation Matrix for Items 1-7
<table>
<thead>
<tr>
<th>Q1</th>
<th>Mean if Item Deleted</th>
<th>Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2</td>
<td>15.30</td>
<td>12.994</td>
<td>.685</td>
<td>.529</td>
<td>.817</td>
</tr>
<tr>
<td>Q3</td>
<td>14.88</td>
<td>12.892</td>
<td>.614</td>
<td>.394</td>
<td>.829</td>
</tr>
<tr>
<td>Q4</td>
<td>15.02</td>
<td>13.322</td>
<td>.568</td>
<td>.371</td>
<td>.836</td>
</tr>
<tr>
<td>Q5</td>
<td>14.26</td>
<td>15.039</td>
<td>.427</td>
<td>.204</td>
<td>.852</td>
</tr>
<tr>
<td>Q6</td>
<td>15.10</td>
<td>13.063</td>
<td>.700</td>
<td>.539</td>
<td>.815</td>
</tr>
<tr>
<td>Q7</td>
<td>15.01</td>
<td>13.363</td>
<td>.667</td>
<td>.421</td>
<td>.828</td>
</tr>
</tbody>
</table>

Table 4.3 Item-Total Statistics for Items 1-7

The internal consistency reliability of items eight through thirteen was 0.786 (Table 4.4). Items eight through thirteen surveyed participants’ perceptions regarding the obstacles to pursuing a master’s of science degree in dental hygiene. This statistic show high internal consistency reliability these items. The Inter-Item Correlation Matrix (Table 4.5) shows no 1.0 or 0.0 as well as no 8.0 or 9.0. These statistics show a high inter-item correlation. Table 4.6 shows total statistics for each item.
<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.786</td>
<td>.793</td>
</tr>
</tbody>
</table>

Table 4.4 Cronbach’s Alpha for Items 8-13

<table>
<thead>
<tr>
<th></th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
<th>Q13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8</td>
<td>1.000</td>
<td>.310</td>
<td>.405</td>
<td>.520</td>
<td>.641</td>
<td>.351</td>
</tr>
<tr>
<td>Q9</td>
<td>.310</td>
<td>1.000</td>
<td>.255</td>
<td>.268</td>
<td>.219</td>
<td>.195</td>
</tr>
<tr>
<td>Q10</td>
<td>.405</td>
<td>.255</td>
<td>1.000</td>
<td>.403</td>
<td>.441</td>
<td>.418</td>
</tr>
<tr>
<td>Q11</td>
<td>.520</td>
<td>.268</td>
<td>.403</td>
<td>1.000</td>
<td>.432</td>
<td>.507</td>
</tr>
<tr>
<td>Q12</td>
<td>.641</td>
<td>.219</td>
<td>.441</td>
<td>.432</td>
<td>1.000</td>
<td>.475</td>
</tr>
<tr>
<td>Q13</td>
<td>.351</td>
<td>.195</td>
<td>.418</td>
<td>.507</td>
<td>.475</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 4.5 Inter-Item Correlation Matrix for Items 8-13
Table 4.6 Item-Total Statistics for Items 8-13

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8</td>
<td>14.67</td>
<td>10.761</td>
<td>.634</td>
<td>.506</td>
<td>.728</td>
</tr>
<tr>
<td>Q9</td>
<td>14.84</td>
<td>12.052</td>
<td>.333</td>
<td>.126</td>
<td>.808</td>
</tr>
<tr>
<td>Q10</td>
<td>14.75</td>
<td>11.123</td>
<td>.533</td>
<td>.294</td>
<td>.754</td>
</tr>
<tr>
<td>Q11</td>
<td>14.76</td>
<td>11.367</td>
<td>.599</td>
<td>.406</td>
<td>.739</td>
</tr>
<tr>
<td>Q12</td>
<td>14.72</td>
<td>11.088</td>
<td>.625</td>
<td>.497</td>
<td>.732</td>
</tr>
<tr>
<td>Q13</td>
<td>14.80</td>
<td>11.718</td>
<td>.536</td>
<td>.366</td>
<td>.754</td>
</tr>
</tbody>
</table>

Survey questions

The first section of the questionnaire, which consisted of items 1-8, answered the following research question:

1. To determine if dental hygienists licensed in Ohio perceive personal and professional advantages in pursuing an MSDH degree.

Section 1: Perceived Values of obtaining a Master’s of Science Degree in Dental Hygiene (MSDH).

1. A MSDH degree would enhance my job performance.

Of the two hundred and forty-nine respondents, 58 (23.3%) strongly disagreed that a MSDH degree would enhance their job performance and one hundred and twelve (45.0%)
disagreed that a MSDH degree would enhance their job performance. Sixty-three respondents (25.3%) agreed that a MSDH degree would enhance their job performance and sixteen (6.4%) strongly agreed that a MSDH degree would enhance their job performance (Figure 4.6).

![Bar chart showing response percentages]

Figure 4.6 A MSDH degree would enhance my job performance

2. A MSDH degree would enhance my personal career satisfaction.

Of the two hundred and forty-nine respondents, 38 (15.3%) strongly disagreed that a MSDH degree would enhance their personal career satisfaction and seventy-one (28.5%) of the respondents disagreed that a MSDH degree would enhance their personal career satisfaction. Ninety-nine (39.8%) agreed that a MSDH degree would enhance their personal career satisfaction. While forty-one (16.5%) of the respondents, strongly agreed that a MSDH degree would enhance their personal career satisfaction (Figure 4.7).
3. Earning a MSDH degree would increase my competitive advantage when applying for jobs.

Of the two hundred and forty-nine respondents, 38 (15.3%) strongly disagreed that earning a MSDH degree would increase their competitive advantage when applying for jobs. Ninety-nine (39.8%) of respondents disagreed that earning a MSDH degree would increase their competitive advantage when applying for jobs. Seventy-eight (31.3%) of respondents agreed that earning a MSDH degree would increase their competitive advantage when applying for jobs and thirty-four (13.7%) strongly agreed that earning a MSDH degree would increase their competitive advantage when applying for jobs (Figure 4.8).
Figure 4.8 Earning a MSDH degree would increase my competitive advantage when applying for jobs.

4. Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings.

Of the two hundred and forty-nine respondents, six (2.4%) strongly disagreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings. Twenty-six (10.4%) disagreed that increasing the number of MSDH degree prepared dental hygienists would lead to better qualified dental hygiene faculty in educational settings. One hundred and thirty-one (52.6%) of respondents agreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings while eighty-six (34.5%) of respondents strongly agreed that increasing the
number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings (Figure 4.9).

Figure 4.9 Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings

5. Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners.

Of the two hundred and forty-nine respondents, thirty-four (13.7%) strongly disagreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners. One hundred and fifteen (46.2%) disagreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners. Seventy-eight (31.3%) agreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-
qualified dental hygiene practitioners while twenty-two (8.8%) of respondents strongly agreed that increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners (Figure 4.10).

Figure 4.10 Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners

6. Increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public.

Of the two hundred and forty-nine respondents, thirty-five (14.1%) strongly disagreed that increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public. One hundred and sixteen (46.6%) disagreed that increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public.
Eighty-five (34.1%) agreed that increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public and thirteen (5.2%) of respondents strongly agreed that increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public (Figure 4.11).

Figure 4.11 Increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public.

7. An MSDH program is needed to meet the evolving roles of dental hygiene professionals.

Of the two hundred and forty-nine respondents, twenty-four (9.6%) strongly disagreed that an MSDH program is needed to meet the evolving roles of dental hygiene professionals. One hundred and sixteen (46.6%) of respondents disagreed that an MSDH
program is needed to meet the evolving roles of dental hygiene professionals. Eighty-four (33.7%) of respondents agreed that an MSDH program is needed to meet the evolving roles of dental hygiene professionals and twenty-five (10.0%) of respondents strongly agreed that an MSDH program is needed to meet the evolving roles of dental hygiene professionals (Figure 4.12).

Figure 4.12 An MSDH program is needed to meet the evolving roles of dental hygiene professionals

Section 2. Perceived Personal Obstacles to Pursuing an MSDH Degree

The second section of the questionnaire, which consisted of items 8-13, answered the following research question:

2. To determine the levels of perceived obstacles in pursuing an MSDH degree by dental hygienists licensed in Ohio.
8. At the present time the need to maintain an income would prevent me from pursuing a MSDH.

Of the two hundred and forty-nine respondents, twenty-two (8.8%) of respondents strongly disagreed that at the present time the need to maintain an income would prevent them from pursuing a MSDH. Forty-four (17.7%) of respondents disagreed that at the present time the need to maintain an income would prevent them from pursuing a MSDH. Eighty-six (34.5%) of respondents agreed that at the present time the need to maintain an income would prevent them from pursuing a MSDH. Ninety-seven (39.0%) respondents strongly agreed that at the present time the need to maintain an income would prevent them from pursuing a MSDH (Figure 4.13).

Figure 4.13 At the present time the need to maintain an income would prevent me from pursuing a MSDH.
9. At the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH.

Of the two hundred and forty-nine respondents, thirty-six (14.5%) respondents strongly disagreed that at the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH. Fifty-three (21.3%) respondents disagreed that at the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH. Sixty-eight (27.3%) respondents agreed that at the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH and ninety-two (36.9%) respondents strongly agreed that at the present time living more than 60 miles from an educational setting would prevent them from pursuing a MSDH (Figure 4.14).

![Bar chart showing responses]

**Figure 4.14** At the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH.

53
10. At the present time family responsibilities would prevent me from pursuing a MSDH.

Of the two hundred and forty-nine respondents, twenty-five (10.0%) respondents strongly disagreed that at the present time family responsibilities would prevent them from pursuing a MSDH. Fifty-four (21.7%) respondents disagreed that at the present time family responsibilities would prevent them from pursuing a MSDH. Seventy-six (30.5%) respondents agreed that the present time family responsibilities would prevent them from pursuing a MSDH and ninety-four (37.8%) respondents strongly agreed that at the present time family responsibilities would prevent them from pursuing a MSDH (Figure 4.15).

Figure 4.15 At the present time family responsibilities would prevent me from pursuing a MSDH
11. At the present time my work schedule would prevent me from pursuing a MSDH.

Of the two hundred and forty-nine respondents, twelve (4.8%) respondents strongly disagreed that at the present time their work schedule would prevent them from pursuing a MSDH. Sixty-six (26.5%) respondents disagreed that at the present time their work schedule would prevent them from pursuing a MSDH. Ninety-four (37.8%) respondents agreed that at the present time their work schedule would prevent them from pursuing a MSDH. Seventy-seven (30.9%) respondents strongly agreed that at the present time their work schedule would prevent them from pursuing a MSDH (Figure 4.16).

Figure 4.16 At the present time my work schedule would prevent me from pursuing a MSDH.
12. At the present time educational costs would prevent me from pursuing a MSDH.

Of the two hundred and forty-nine respondents, fifteen (6.0%) respondents strongly disagreed that at the present time educational costs would prevent them from pursuing a MSDH. Fifty-eight (23.3%) respondents disagreed that at the present time educational costs would prevent them from pursuing a MSDH. Ninety-one (36.5%) respondents agreed that at the present time educational costs would prevent them from pursuing a MSDH and eighty-five (34.1%) respondents strongly agreed that at the present time educational costs would prevent them from pursuing a MSDH (Figure 4.17).

![Bar chart showing percentage distribution of responses to the statement on educational costs preventing pursuit of a MSDH.]

Figure 4.17 At the present time educational costs would prevent me from pursuing a MSDH
13. At the present time the amount of time to attain an MSDH would prevent me from pursuing such a degree.

Of the two hundred and forty-nine respondents, fourteen (5.6%) respondents strongly disagreed that at the present time the amount of time to attain an MSDH would prevent them from pursuing such a degree. Sixty-four (25.7%) respondents disagreed that at the present time the amount of time to attain an MSDH would prevent them from pursuing such a degree. One hundred and one (40.6%) respondents agreed that at the present time the amount of time to attain an MSDH would prevent them from pursuing such a degree and seventy (28.1%) respondents strongly agreed that at the present time the amount of time to attain an MSDH would prevent them from pursuing such a degree (Figure 4.18).

![Bar chart showing responses to the question about the amount of time to attain an MSDH](chart.png)

Figure 4.18 At the present time the amount of time to attain an MSDH would prevent me from pursuing such a degree.
In addition to strongly disagree to strongly agree answers, participants were asked to rank each of the questions in sections one and two. Out of the 249 respondents, 151 (60%) ranked each of the questions. Section one asked participants to rank each of the values to pursuing a MSDH degree from the one you value most to the one you value least. The two most frequently reported important values were to pursue an MSDH degree to increase the number of MSDH degree prepared dental hygienists to lead to better qualified dental hygiene faculty in educational settings and to enhance their personal career satisfaction. The two frequently reported least important values were increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public and that a MSDH degree would enhance their job performance.

Section two asked participants to rank each of the personal obstacles to pursuing an MSDH degree from the greatest to the least great obstacle. Participants reported that the greatest two obstacles were that at the present time family responsibilities and the need to maintain an income would prevent them from pursuing a MSDH. The two least great obstacles reported were the amount of time and living more than 60 miles from an educational setting would prevent them from pursuing a MSDH.

Section 3: Personal Need for a MSDH Degree in Ohio

Section three of the questionnaire asked participants to answer three yes/no questions regarding personal need for an MSDH degree program in Ohio. This section, which consisted of items 14-16, answered the following research question:

3. To determine if dental hygienists licensed in Ohio perceive a need for a MSDH degree program in Ohio.
14. I feel there is a need for a MSDH Degree program in Ohio.

One hundred and thirty-six respondents, (54.8%) felt that an MSDH degree program was needed in Ohio. One hundred and twelve respondents, (45.2%) felt that an MSDH degree program was not needed in Ohio (Figure 4.19).

![Bar chart showing need for MSDH Degree program in Ohio](image)

**Figure 4.19 Need for a MSDH Degree program in Ohio**

15. A MSDH degree is part of my plan for my future professional advancement.

Thirty-four respondents, (13.7%) felt that a MSDH degree is part of their plan for future professional advancement. Two hundred and fourteen respondents, (86.3%) felt that a MSDH degree is not part of their plan for future professional advancement (Figure 4.20).
Figure 4.20 A MSDH degree is part of my plan for my future professional advancement.

16. Would you consider traveling to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University?

Forty-nine respondents, (19.8%) would consider traveling to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University. One hundred and ninety-nine respondents, (80.2%) would not consider traveling to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University (Figure 4.21).
Figure 4.21 Travel to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University

Data was also compiled which analyzed the responses of associate degree dental hygienists' against the responses of bachelor degree dental hygienists'. Of the 249 respondents, one hundred and seventy-one (68.8%) had associate degrees or a certificate in dental hygiene, seventy-two (28.7%) held bachelor degrees in dental hygiene. This analysis was compiled to assess whether or not a hygienist with a bachelor degree felt differently about the value of an MSDH degree or more inclined to pursue an MSDH degree. Of the 72 respondents with bachelor degrees, 48 (66%) felt there is a need for a MSDH Degree program in Ohio (Figure 4.22). The majority, 55 respondents (76%) felt that a MSDH degree is not part of their plan for future professional advancement (Figure 4.23). Also, the majority, 45, (63%) felt they would not consider traveling to Columbus,
Ohio if a MSDH degree program were implemented at The Ohio State University (Figure 4.24).

Figure 4.22 Need for MSDH Degree Program in Ohio; Bachelors/Associates

Figure 4.23 Plan for future professional advancement; Bachelors/Associates
Figure 4.24 Traveling to Columbus if an MSDH degree program were implemented:

Bachelors/Associates

Refer to Figures 4.25 and 4.26 for a compilation of majority responses, from the first and second sections of the questionnaire.
Figure 4.25 Perceived Values of Obtaining a MSDH Degree; Majority Responses

Figure 4.26 Perceived Obstacles to Pursuing an MSDH Degree; Majority Responses
Interview Results

The interview consisted of dental hygiene baccalaureate program directors from nine dental hygiene baccalaureate programs in Ohio and the bordering states of Indiana, Kentucky, Michigan, Pennsylvania and West Virginia (26). Eight of the nine directors participated in the interview, yielding a response rate of 89%. Four questions were utilized through email to collect this data.

1. Do you perceive an MSDH degree to be important to the dental hygiene profession?
2. Do you perceive that students in your program would be interested in obtaining their MSDH degree if a program existed in Ohio?
3. What are your perceptions regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field?
4. Do you feel that an MSDH degree program is needed in Ohio?

This portion of the study answered the following four research questions:

4. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession.
5. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio.
6. To determine the perceptions of the Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field.
7. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio.

**Interview Responses**

Listed below is the transcription from each email interview.

1. Do you perceive an MSDH degree to be important to the dental hygiene profession?

   “Yes I do perceive the MSDH degree to be important.”

   “Given the direction dental hygiene is going--ADHP, etc. I feel an MSDH is important to our profession.”

   “I definitely perceive a MSDH degree to be important for the profession mostly because of the educator shortage. In looking for new faculty to replace the ones that are retiring I am looking for those who have clinical and didactic dental hygiene teaching experience. These individuals most likely will come out of dental hygiene programs that offer a Master's degree. Additionally, with the possibility of the Advanced Dental Hygiene Practitioner, a Master's in dental hygiene will be required.”

   “YES. Previous research verifies the value of the degree and the need for increased access to graduate programs in hygiene.”

   “Yes”

   “Yes, I do think the master’s degree is essential to the continued growth of the dental hygiene profession. With increased knowledge of the systemic/oral health link and emerging technologies there is need for expanded education of all dental hygienists. The advanced practice dental hygienist concept further justifies the need for more extensive formal education avenues for dental hygienists. In
addition, there is currently a shortage of qualified dental hygiene educators to prepare future practitioners. This shortage is expected to worsen in the years ahead. Many faculty are nearing retirement age which will create significant need for highly educated individuals to move into the vacated positions.”

“Yes, I feel the MSDH degree is very important to our profession.”

“I do believe that a MSDH degree in dental hygiene is important. If we want autonomy, we need to increase the knowledge base.”

2. Do you perceive that students in your program would be interested in obtaining their MSDH degree if a program existed in Ohio?

“Many students finishing a BS degree are anxious to get to work and few express the interest in moving right into a MSDH program. I believe a program in Ohio would be helpful.”

“Our students would most likely NOT go to Ohio to obtain an MSDH since U of Michigan has this program and it is closer.”

“Yes, I believe students in my program would be interested in obtaining their MSDH if a program was offered in Ohio. I have had many inquiries from the students.”

“Since there is a graduate program at the University of Michigan, and the vast majority of our students are Michigan residents, our students probably would not be as likely to attend in Ohio.”

“Not sure.”

“I do not anticipate many students choosing to complete a MSDH degree in Ohio. In spite of intensive student advising regarding an advanced education,
most of our graduates complete the AS degree, approximately 50% complete the BS degree, but very few continue to the MS degree. Those who do usually opt for an MEd which is available on our campus.”

“If Ohio had an MSDH Program, it would give Ohio students and those in bordering states more choices to attend a program within their region. Some of our students like the idea that they can stay in the same institution and proceed on to the next degree, while interested BSDH grads look into other programs.”

“The majority of my students are residents of southwestern Pennsylvania. If the program was in close proximity to were the students live, it would provide greater accessibility; thus, more appeal.”

3. What are your perceptions regarding the advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field?

“Until there is further delineation from the profession, I think both are acceptable. Once the ADHP becomes a reality, the MSDH will be more valuable.”

“My degree is a MSDH and I am thankful I went that route. Most education institutions request an MSDH, but will accept another MS degree. It depends on the career goals of the individual.”

Advantages of obtaining an MSDH vs. another degree: that it would be tailored to the dynamic needs of the profession of dental hygiene. Another MS might not be as specific to the preparation of dental hygiene education, research etc.”

“Disadvantage: My own personal experience-I once interviewed for a position with a four year college offering a BS degree completion program. The position
was a full-time degree completion coordinator. I was living in northern Michigan where there weren't any dental hygiene programs. My MS is in Health Care Education. Seeing that I was a dental hygienist, they were very concerned that my MS only had to do with dental hygiene. I had to explain otherwise. This college did not offer dental hygiene and had no idea what a dental hygiene education entailed. Once I explained my thesis and the structure of my MS educational requirements they were ok with it. In that situation they felt an MS concentrating in dental hygiene was too limiting. While I feel the MSDH is a vital degree in terms of trying to develop more dental hygiene educators, I have always kept my personal situation in mind when counseling students. FYI-I always start with a MSDH first!!!! However, I truly counsel them in the direction their goals are.”

“In an ideal world, the MSDH is the preferred degree since it is specific to the professional discipline, and specifically prepares the graduate to move into advanced career opportunities in dental hygiene. Historically, many hygienists have received the master’s in another field and have been extremely successful in dental hygiene education and other dental hygiene positions, so would never discount the value of the other degrees or the individuals possessing them. Due to the increased number of dental hygiene programs in the country, and the obvious graying of dental hygiene educators, we must be addressing the need for graduate level preparation for dental hygiene educators of the future (and near future that is!)”

“Ability to teach in DH programs.”

“Advantages include availability of a MS in another discipline as well as
providing the individual with expanded employment opportunities external to the
dental hygiene profession. On the whole however, I see more disadvantages. As
a program director, I would prefer to include on my faculty individuals who have
advanced knowledge in the dental hygiene and dental hygiene education areas.
The ADHP concept will further necessitate expanding the dental hygienist's
knowledge within the discipline.”

“Advantages... it is very content specific but usually includes courses on
teaching methodologies. An MS in another area would only have that content
matter without coursework on teaching skills, etc. Another advantage may
be that for accreditation of dental hygiene programs. We have recently heard that
at a site visit it was specifically asked if any faculty held a MSDH degree.”

“Now, advantages of having an MS in another field... sometimes when DH
faculty have master’s in other areas, (which is a variety of other educational
backgrounds), it can broaden the faculty and a complimentary skill set from
which the students will greatly benefit.
Disadvantages of having a MS in another field may hamper certain
employment opportunities outside of dental hygiene education and other dental
related employment settings.”

4. Do you feel that an MSDH degree program is needed in Ohio?

“I believe question 4 would be valid if it asked: "Do you think another MSDH
degree program is needed?"

“I think it would be helpful.”
“I feel an MSDH degree program is needed in Ohio. Having just conducted a site visit at Ohio State, I learned of the "rural needs" in the State of Ohio. You already have an expanded duties certification; it makes perfect sense for the MS degree in terms of meeting the needs of the population in these rural areas.”

“I definitely believe a MSDH degree program is needed in Ohio. With 12 existing dental hygiene programs and one possibly on the way we need educators! Again, with the developing ADHP, we will need master’s level educators to offer this program as well.”

“I believe we need to be increasing the number of hygienists with advanced degrees. Given the number of undergraduate hygiene programs in Ohio, one would think there is a significant untapped source of potential graduate students. Obviously dental hygiene struggles with the high percentage of hygienists who receive the associate degree rather than BS, so the pathway to graduate education is more challenging.”

“Not sure”

“I really can't respond knowledgeably about the need for a MSDH in Ohio. I think there is a need in general for additional MSDH programs. I think online options would make the degrees exceptionally marketable.”

“At this time, I'm not sure it is “needed”. We have very few students matriculating thru the program at this time. We are working diligently to get our courses online as the other programs have done. So many dental hygiene students graduate with an assoc degree only and have to complete their bachelors
first. I wish I had an idea of many students are now matriculating thru the other MSDH programs.”
CHAPTER 5

CONCLUSIONS AND FUTURE RESEARCH

This chapter will include the discussion of the results obtained in this study. This chapter will be divided into three sections. The first section will include the discussion of the questionnaire data. The second section will include the discussion of the interview data. The final section will draw conclusions from both and discuss further research.

The Questionnaire

As the discipline evolves, graduate education in the science of dental hygiene is becoming the focus of discussion for both medical and dental professions. The literature suggests, based on a 2004 survey report of dental hygiene faculty, that the purposes of a Master of Science Degree Program in Dental Hygiene are to prepare dental hygienists to teach, develop dental health programs in a variety of settings, conduct research, and provide care as collaborative dental hygiene practitioners (19). For example, it provides the dental hygienist the opportunities to be involved in increased decision making and problem solving skills scenarios. These experiences contribute to the dental hygiene scientific body of knowledge and enable the dental hygienist to assist in and/or conduct research and theory development in the dental hygiene science, provides career opportunities in alternative practice settings, and prepares dental hygienists to meet the professional and educational concerns. Results from our study indicate that our sample of dental hygienists do not agree as the majority has indicated that they do not see the
value in obtaining an MSDH degree with regard to increase job satisfaction, increased competitive advantage, career satisfaction, better qualified practitioners or improved access to quality care.

The literature also cites the recognized and published relationships of oral health to total general health underscoring the need for quality health care to be delivered by qualified dental hygienists (7). This well qualified dental hygienist necessitates a higher level of degree to benefit the public in a way that reduces inequalities of health care access and accomplish the goals of Healthy People 2010. The central message of the report was that oral health is essential to general health with goals and objectives to obtain that health (7). Each goal from the Oral Health Section of Healthy People 2010 could be accomplished utilizing the skills of a master’s level degree prepared dental hygienist (7). When asked if the MSDH degree would contribute to better quality practitioners, the majority of our subjects believed that a MSDH will not lead to better quality practitioners nor did the majority believe that an MSDH would improve access to and the quality of care. The data of this study suggests that the majority of the sample does not agree that the goals or message of Healthy People 2010 can be met by utilizing the skills of a master’s level degree prepared dental hygienist. For the profession, hygienists’, educators and the professional organizations might have to think of other ways to meet the goals of Healthy People 2010. This is a topic that needs to be further studied.

Enrollment in MSDH programs has declined over the past two decades (24). According to a 2000 study which surveyed 252 graduates of MSDH degree programs, between the years of 1980 and 1995, respondents stated that many hygienists with
master’s degrees have the degree in areas other than hygiene, because MSDH programs are not easily accessible and cannot relocate for graduate school due to family responsibilities and or financial constraints (22). Similarly, the majority of our subjects thought that there were many barriers to pursuing an MSDH with the subjects indicating that the need to maintain an income, the cost of attaining such a degree, proximity issues and family responsibilities were major obstacles to obtaining an MSDH degree. One possible solution to these obstacles is distance education. This type of education may provide a way for individuals who may otherwise not pursue a graduate degree in dental hygiene to attain an advanced degree. Further research is necessary to address this possible need.

Concurrent with the decline in enrollment in MSDH degree programs, there is also a decline in the number of MSDH degreed practitioners seeking faculty positions. Due to expanding career opportunities in private industry and research, recent graduates of MSDH programs are finding more lucrative positions in nontraditional settings, not in academic settings (22). The results of a 1999 survey assessing two hundred and twenty-two dental hygiene program directors and their perceptions of graduate dental hygiene education indicated that the existing MSDH degree programs are experiencing difficulty recruiting students into the program because hygienists are not aware of the graduate opportunities available to them in dental hygiene (11). The majority of our subjects believed that a MSDH would lead to better qualified faculty but as a whole did not feel that an MSDH was part of their future plan.

Overall, respondents of the questionnaire did not perceive a value in obtaining an MSDH degree. Respondents agreed that there is a need for such a program in Ohio, but it
was not likely that they would utilize a MSDH degree program if such a program was implemented in Ohio. Responses of associate degree dental hygienists’ against the responses of bachelor degree dental hygienists’ were analyzed and similar trends were revealed. Of the 72 respondents with bachelor degrees, the majority did feel that there is a need for a MSDH Degree program in Ohio. The majority also felt that a MSDH degree is not part of their plan for future professional advancement and they would not consider traveling to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University.

The Interview

Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession. Each director interviewed stated that an MSDH degree is important to the dental hygiene profession to help satisfy the educator shortage, the need for increased access to graduate programs in dental hygiene being essential to the continued growth of the dental hygiene profession.

Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that students in their programs would not be interested in obtaining a MSDH degree if a program existed in Ohio. Directors felt that their students most likely would take advantage of MSDH degree programs in their own state due to proximity issues. The Director at The Ohio State University did feel that students at OSU would be interested in obtaining their MSDH degree a program existed in Ohio.

Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, stated advantages and disadvantages of obtaining an MSDH degree
verses obtaining a Master’s degree in another field. “Advantages... it is very content specific but usually includes courses on teaching methodologies. An MS in another area would only have that content matter without coursework on teaching skills, etc.”

“Disadvantages of having a MS in another field may hamper certain employment opportunities outside of dental hygiene education and other dental related employment settings.” One director felt that until there is further delineation from the profession, both types of degrees would be acceptable.

Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio. In general, the directors were divided equally as to whether or not they believe that a MSDH degree program is needed in Ohio. One director stated that having just conducted a site visit at Ohio State, she learned of the "rural needs" in the State of Ohio. She stated “You already have an expanded duties certification; it makes perfect sense for the MS degree in terms of meeting the needs of the population in these rural areas.” Another director felt, “I definitely believe a MSDH degree program is needed in Ohio. With 12 existing dental hygiene programs and one possibly on the way we need educators! Again, with the developing ADHP, we will need master's level educators to offer this program as well.” “I believe we need to be increasing the number of hygienists with advanced degrees. Given the number of undergraduate hygiene programs in Ohio, one would think there is a significant untapped source of potential graduate students. Obviously dental hygiene struggles with the high percentage of hygienists who receive the associate degree rather than BS, so the pathway to graduate education is more challenging.” The remaining four directors were not sure if another MSDH program is needed in Ohio. One of those four
directors questioned as to whether another MSDH degree program is needed in general, let alone Ohio.

Conclusion

Overall, the majority of Ohio licensed dental hygienists did not believe that there was value in obtaining an MSDH with regard to their own personal and professional growth. However, the majority did feel that there was value to pursuing an MSDH for those interested in dental hygiene faculty positions. When asked to indicate the obstacles to pursuing an MSDH degree they indicated that family responsibilities and the need to maintain an income would prevent them from pursuing a MSDH.

This study of the perceptions of Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, reveals that an MSDH degree is important to the dental hygiene profession and that an MSDH degree program is needed in Ohio. Directors’ perceive that students in their programs would be interested in obtaining their MSDH degree if a program existed in Ohio however they felt that their students most likely would take advantage of MSDH degree programs in their own state. The Ohio State University Director did feel that students at OSU would be interested in obtaining their MSDH degree a program existed in Ohio.

Directors stated advantages and disadvantages of obtaining an MSDH degree verses obtaining a Master’s degree in another field. Comments include, “advantages... it is very content specific but usually includes courses on teaching methodologies. An MS in another area would only have that content matter without coursework on teaching skills, etc.” Also, “disadvantages of having a MS in another field may hamper certain employment opportunities outside of dental hygiene education and other dental related
employment settings.”

The majority of Ohio licensed dental hygienists as well as Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, feel that a MSDH degree program is needed in Ohio. The majority of Ohio licensed dental hygienists however did not include an MSDH degree in their plans for future professional advancement. According to this study, even if an MSDH degree program was implemented at The Ohio State University, in Columbus, the majority of Ohio licensed dental hygienists, who live more than 60 miles away from Columbus probably would not travel. This data is consistent with the many of the directors’ comments.

Implications for a Program in Ohio

For The Ohio State University Dental Hygiene program this may be a step in the direction of the establishment of an MSDH degree program. The data suggests that out of 249 respondents, a small majority include an MSDH degree as part of their plan for future professional advancement and they would travel to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University. According to several of the existing MSDH degree programs, admission is limited to four or five students per year. Also, undoubtedly there is enough published literature to support the need for another MSDH degree program and with the small majority of respondents expressing interest, OSU may have the data to support a proposal.

Future Research Considerations

Future research may include surveying dental hygienists and their knowledge of what a Master’s degree or a MSDH degree could do for them. Ohio dental hygienists’ must be better informed of other aspects of dental hygiene. Dental hygienists may be
more inclined to pursue a graduate degree if they were educated on the many benefits for them personally as well as the many benefits for the profession. Future research may also include surveying Ohio licensed dental hygienists perceptions regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio offered as a distance or on-line degree.
APPENDIX A

QUESTIONNAIRE COVER LETTER AND QUESTIONNAIRE

February 2006

Dear Dental Hygienist:

I am a hygienist and a graduate student at The Ohio State University in the College of Allied Medicine. I am assessing the need for a master’s level program in dental hygiene in Ohio.

Enclosed is a short questionnaire intended to gauge the level of interest in and perceived need for a Master’s of Science Dental Hygiene Degree program in Ohio. Please take a few minutes to complete the questionnaire, and return it in the self-addressed, stamped envelope by February 2006.

Please note that your responses will be used for research purposes only and will be kept confidential. The number on the questionnaire is for documentation purposes only. No attempt will be made to correlate your returned questionnaire with your name. Once the questionnaire is returned, the identifying number will be removed and only aggregate data used. I will recontact you one time if you do not respond within two weeks. Your participation is important not only to the success of this survey project, but to the profession of dental hygiene.

If you would like to receive a copy of the research findings, please contact me at dawson.239@osu.edu.

Your time and cooperation in completing and returning the questionnaire is greatly appreciated.

Sincerely,

Stephanie A. Dawson RDH, BSDH
General Questionnaire Instructions

Please read the instructions at the beginning of each section. Comments can be written on the last page of the questionnaire in the designated area.

Section 1: Perceived Values of obtaining a Master’s of Science Degree in Dental Hygiene (MSDH)

a. Please rate your level of agreement or disagreement with each of the following statements.
b. When completed, rank each of the following values to pursuing a MSDH degree from 1 (greatest) to 7 (least).

- 4=Strongly agree with the statement;
- 3=Agree with the statement;
- 2=Disagree with the statement;
- 1=Strongly disagree with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A MSDH degree would enhance my job performance.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2. A MSDH degree would enhance my personal career satisfaction.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3. Earning a MSDH degree would increase my competitive advantage when applying for jobs.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene faculty in educational settings.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Increasing the number of MSDH degree prepared dental hygienists would lead to better-qualified dental hygiene practitioners.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Increasing the number of MSDH degree prepared dental hygienists would improve the quality of and access to dental services for the public.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7. An MSDH program is needed to meet the evolving roles of dental hygiene professionals.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Section 2: Perceived Personal Obstacles to Pursuing an MSDH Degree

a. Please rate your level of agreement or disagreement with each of the following statements.
b. When completed, rank each of the following obstacles to pursuing a MSDH degree from 1 (greatest) to 6 (least).

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. At the present time the need to maintain an income would prevent me from pursuing a MSDH.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
<tr>
<td>9. At the present time living more than 60 miles from an educational setting would prevent me from pursuing a MSDH.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
<tr>
<td>10. At the present time family responsibilities would prevent me from pursuing a MSDH.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
<tr>
<td>11. At the present time my work schedule would prevent me from pursuing a MSDH.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
<tr>
<td>12. At the present time educational costs would prevent me from pursuing a MSDH.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
<tr>
<td>13. At the present time the amount of time to attain an MSDH would prevent me from pursuing such a degree.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>_____</td>
</tr>
</tbody>
</table>

Section 3: Personal Need for a MSDH Degree in Ohio

Please circle the appropriate answer regarding your opinions of personal need for a Master’s of Science Degree in Dental Hygiene in Ohio.

14. I feel there is a need for a MSDH Degree program in Ohio.
   
   Yes   No

15. A MSDH degree is part of my plan for my future professional advancement.

   Yes   No

16. Would you consider traveling to Columbus, Ohio if a MSDH degree program were implemented at The Ohio State University?

   Yes   No

83
Section 4: Demographic Data
Please circle the most suitable response.

17. Which of the following best describes your highest level of dental hygiene education?
   a. Associate degree/Certificate
   b. Bachelors degree
   c. Master’s degree

18. How long have you been a licensed dental hygienist?
   a. 0-5 years
   b. 6-10 years
   c. 11-20 years
   d. 21 years or more

19. How many hours do you currently work as a dental hygienist per week?
   a. Fewer than 32
   b. 32 or more
   c. I do not currently practice

20. Which of the following best describes your primary work setting?
    (majority of work hours per week)
    a. Private practice
    b. Educational setting
    c. Government (e.g., city, county)
    d. Other (please specify) ________________
    e. I do not currently practice

21. In which state do you primarily practice? (majority of work hours per week)
    a. Ohio
    b. Pennsylvania
    c. West Virginia
    d. Kentucky
    e. Indiana
    f. Michigan
    g. Other, please specify______________________________

22. What is your age? ______

Comments regarding this survey.

Thank you for completing this questionnaire. Please return it in the self-addressed, stamped envelope by February 2006.
APPENDIX B

BACCALAUREATE DEGREE DENTAL HYGIENE PROGRAM DIRECTOR RECRUITMENT LETTER

Dear Ms. ______,

I am a hygienist and a graduate student at The Ohio State University in the College of Allied Medicine. Within the next month, I would like to speak with you concerning your participation in a structured interview of Baccalaureate Degree Dental Hygiene program directors in this region of the U.S. regarding the personal and professional advantages of an MSDH degree, obstacles to pursuing an MSDH degree and perceived need for a MSDH degree program in Ohio. The overarching goal of this study is to identify if there is a need for a MSDH degree program in the State of Ohio. Specifically, I will be conducting a interview via conference call to determine each of the following specific objectives:

1. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree is important to the dental hygiene profession.
2. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that students in their programs would be interested in obtaining their MSDH degree a program existed in Ohio.
3. To determine the perceptions of the Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, regarding the advantages and disadvantages of obtaining an MSDH degree versus obtaining a Master’s degree in another field.
4. To determine if Baccalaureate Degree Dental Hygiene Program Directors, in Ohio and the bordering states, perceive that an MSDH degree program is needed in Ohio.

Altogether the interview will last about one hour and I will be recording the responses. I will be contacting you within the next few days to schedule a date and time.

Your help and that of other BS dental Hygiene Program directors is essential to the study’s success.
If you have any questions, please do not hesitate to contact me by phone at (614) 890-2663 or by email at dawson.239@osu.edu.

Sincerely,

Stephanie A Dawson RDH, BSDH
APPENDIX C

BACCALAUREATE DEGREE DENTAL HYGIENE PROGRAM DIRECTOR INTERVIEW QUESTIONS

1. Is an MSDH degree important to the dental hygiene profession? Yes or No. Give me two reasons why it is. Give me two reasons why it is not.

2. Would students in your programs be interested (or more interested) in obtaining their MSDH if there was a program in Ohio? Yes or No. Why or why not?

3. Name 1 or 2 advantages and 1 or 2 disadvantages to having an MSDH degree verses having a Master’s degree in another field?

4. Is an MSDH degree program needed in Ohio? Why or why not?
REFERENCE LIST


caries in the primary and permanent dentition of children and adolescents 1-17


25. American Dental Hygienists' Association and National Research Workshop.
American Dental Hygienists' Association. 6-25-2005. Washington, DC.

26. American Dental Hygienists' Association. American Dental Hygienists'
Association: Education and Careers.

27. Gay B. Diversification through continuing education. The Surgical Technologist

28. McCloskey JCMBE. Satisfaction, commitment and professionalism of newly

29. Henson HA. Parallel Professions: Dental Hygiene and Nursing. Contemporary


32. Dillman D. Mail and Telephone Surveys; The Total Design Method. New York:

33. Peers I. Statistical analysis for education and psychology researchers. Bristol, PA:
Falmer Press, 1996.


35. Hammersley M. Some notes on the terms 'validity' and 'reliability. British