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# Exploring the Perceptions of Novice Dental Hygiene Faculty Toward Mentoring Within Academic Settings

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# EXPLORING THE PERCEPTIONS OF NOVICE DENTAL HYGIENE FACULTY TOWARD MENTORING WITHIN ACADEMIC SETTINGS

DISSERTATION

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ABSTRACT

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Barry University, 2009

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Purpose: The purpose of the study was to explore the perceptions of novice dental hygiene faculty members toward the mentoring process. This phenomenological qualitative study was conducted with seven purposively selected associate degree dental hygiene faculty members who had been full-time for five years or less. The participants provided perceptions and beliefs concerning the effect of mentoring on a novice faculty member's adjustment to academic work.

Method: An online questionnaire was employed using SurveyMonkey™. The participants were selected from a population of dental hygiene educators in Florida following guidelines prescribed by researchers Creswell (1998) and Patton (2002). Data were analyzed following the research of Moustakas (1994), Patton (2002), and Rubin and Rubin (2005). Using an inductive process, themes emerged through coding the responses individually and as a group.

Major Findings: The participants revealed an overwhelming acknowledgment of the impact of mentoring on their academic careers. The participants believed wholeheartedly that their career satisfaction was guided by the support from mentors and colleagues. It was the perception of the participants that difficult issues could be

overcome with the guidance and support of mentors and with formal faculty development course work. One of the most revealing themes of the participants' responses was how much they enjoyed their work. Recommendations for further research include additional studies on a variety of topics including: novice community college faculty members; mentoring from a culturally diverse perspective; the needs of adjunct dental hygiene faculty members; the perceptions of retiring faculty members on how they perceive their worth to novice faculty; and lastly, a quantitative study to confirm the hypotheses on mentoring using a larger population. Results of this study indicated that individual dental hygiene programs could provide new faculty members with the tools to be successful by developing a structured mentoring program. Also, by taking a leadership role with a focus on both mentoring and on formal faculty development course work, institutions could affirm and further the mission of the institution, facilitate the enhancement of education, and adopt practices that will help retain quality educators.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS ..... viii

DEDICATION ..... x

LIST OF FIGURES ..... xi

LIST OF TABLES ..... xii

Chapters

I. THE PROBLEM ..... 1

Introduction ..... 1
Statement of the Problem ..... 2
Purpose of the Study ..... 4
Research Questions ..... 5
Significance of the Study ..... 5
Origins of the Researcher's Interest in the Topic ..... 6
Theoretical Framework ..... 7
Research Design ..... 8
Definition of Terms ..... 9
Limitations and Delimitations ..... 10
Organization of the Study ..... 11
Chapter Summary ..... 12

II. REVIEW OF THE LITERATURE ..... 13

Introduction ..... 13
Mentoring ..... 14
The Role and Duties of a Mentor ..... 16
The Role and Duties of a Protégé ..... 17
Risks, Rewards, Challenges, and Opportunities of Mentoring ..... 18
Conditions that Encourage Mentoring ..... 19
Mentoring in Higher Education ..... 21
Transformative Learning ..... 22
Role of the Dental Hygienist as a Healthcare Provider ..... 24
Importance of Oral Health ..... 25
Dental Hygiene Professional Paradigm ..... 27
Licensure and Educational Requirements ..... 27
Dental Hygiene Education ..... 28
History of Dental Hygiene Education ..... 28
Institutions and Their Mission ..... 29
Dental Hygiene Faculty and Credentials ..... 31

Faculty Retention and Professional Development ..... 32
Institutional Responsibility and Leadership ..... 33
Issues of Diversity ..... 37
Mentoring Dental Hygiene Faculty ..... 40
Chapter Summary ..... 43

III. RESEARCH METHODOLOGY ..... 45

Introduction ..... 45
Philosophical Paradigm ..... 45
Social Constructionism as a Philosophical Framework ..... 46
Assumptions of Social Constructionism ..... 47
Rationale for a Qualitative Study ..... 50
Rationale for a Phenomenological Study ..... 52
Research Questions ..... 54
Methods ..... 55
Role of the Researcher ..... 55
Sample Selection ..... 57
Data Collection and Processing Procedures ..... 58
Recruitment and Consent ..... 59
Instrument ..... 61
Timeline ..... 62
Confidentiality ..... 63
Record Keeping ..... 63
Data Analysis Procedures ..... 64
Standards of Quality and Verification ..... 67
Credibility ..... 68
Transferability ..... 70
Dependability ..... 71
Confirmability ..... 71
Ethical Considerations ..... 72
Codes of Ethics ..... 72
Purpose and Worthiness ..... 73
Ethical Methods ..... 73
Ethical Analysis ..... 75
Ethical Study Results ..... 76
Chapter Summary ..... 77

IV. RESULTS OF THE STUDY ..... 79

Introduction ..... 79
Data Analysis and Coding ..... 80
Description of Participants ..... 83
Years of Experience ..... 83
Involvement in a Mentoring Relationship ..... 83
Findings ..... 84

Adjustment to Academic Work ..... 84
Adjustment from Novice to Experienced Faculty ..... 88
Role of Mentoring on Faculty Retention and Professional Development ..... 93
Summary of Findings ..... 96
Chapter Summary ..... 97

V. DISCUSSION OF THE FINDINGS ..... 99

Introduction ..... 99
Summary of the Study ..... 99
Purpose ..... 100
Significance of the Study ..... 102
Method ..... 103
Discussion of the Findings ..... 104
Adjustment to Academic Work ..... 105
Adjustment from Novice to Experienced Faculty ..... 108
Role of Mentoring on Faculty Retention and Professional Development ..... 111
Summary of Findings ..... 115
Adjustment to Academic Work Is Facilitated by Support from Others ..... 115
Support of Others Guides the Adjustment from Novice to Experienced ..... 115
Mentoring Does Play a Role in Faculty Retention and Professional Development ..... 116
Conclusions ..... 117
Recommendations ..... 117
Further Research ..... 118
Implications for Practice ..... 119
Chapter Summary ..... 120

REFERENCES ..... 123

APPENDICES ..... 140

APPENDIX A: Introduction/Recruitment Flyer ..... 140
APPENDIX B: Email Letter of Introduction ..... 141
APPENDIX C: Follow-Up Email Request for Participation ..... 142
APPENDIX D: Goal Reached Letter ..... 143
APPENDIX E: Barry Informed Consent Form ..... 144
APPENDIX F: Online Survey Inclusion Criteria and Demographics ..... 145
APPENDIX G: Online Survey Open-Ended Questionnaire ..... 146
APPENDIX H: Thank You For Participation ..... 147
APPENDIX I: Moustakas' Modification of the Stevick-Colaizzi-Keene Method of Data Analysis ..... 148

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# DEDICATION

To those dental hygiene faculty members who are committed to guiding students' dreams to fulfillment and improving their lives through entrance into the profession of dental hygiene, I dedicate this study to you.

Most especially, I dedicate this work to my husband, Ray R. Woods, III. You have been there every step of the way by making breakfasts, packing my lunches and dinners, and listening to my exhilarations and frustrations. Your constant devotion to my success humbles me. I will never be able to reciprocate your love and support. Everyone needs a champion, and Ray, I cannot thank you enough for being mine.

LIST OF FIGURES

Pages

1. Anticipated effect of mentoring on professional development, faculty retention, and transformation into experienced faculty ..... 67

2. Assistance for novice dental hygiene faculty ..... 89

LIST OF TABLES

Pages

1. Topics of Professional Development Courses..... ..... 91

# CHAPTER I

# THE PROBLEM

## Introduction

Members of the baby boomer generation will be retiring in large numbers in the next few years, and many professions, including the academic world, will be searching for replacements for the projected shortage of employees. Allied health education, which includes dental hygiene, is one of the areas that will be severely affected.

The average age of full-time dental hygiene educators is 46 years (Nunn et al., 2004). A survey of 266 dental hygiene programs in the U. S. estimated that within the next few years, 68% of the responding programs would need to replace full-time faculty; 73% attribute the problem to retirement of existing faculty (Nunn et al., 2004). The dilemma dental hygiene program directors and deans face is finding qualified, dedicated faculty members who, once hired, will feel acclimated enough to academia to stay in the job.

One of the traditional methods used to retain employees and improve their professional practice is the use of a mentor. For many years, mentoring has been a hot topic in professional circles; whether in business and industry or in education, mentoring has been seen as a way to develop professional behaviors in new employees (Clawson, 1996; Schrubbe, 2004; Woodd, 1997) or in workers who have moved into different positions within the organization (Blass & Ferris, 2007; Perry, 2006). Mentoring has also been perceived as a way to create a more effective organization (Headlam-Wells, Gosland, & Craig, 2006; Scandura, Tejeda, Werther, & Kankau, 1996).

*Mentor* is a term that comes from Greek mythology. Ulysses, while fighting the Trojan War, needed someone to watch over his son, Telemachus, and asked Mentor, the son of his friend, to take on the task. Athena, goddess of wisdom, would often take the shape of Mentor when visiting Telemachus (Murrin, 2007). Mentor was known as a counselor and teacher, which is how the term mentor came into being. However, today's researchers have not come up with a definition of mentor with which everyone concurs, nor is there a definitive treatise on what constitutes good mentoring. In allied health, including dental hygiene, two issues are in question: how the knowledge base will be passed on to new educators and who will be the future mentors for new dental hygiene educators.

## Statement of the Problem

Faculty members in dental hygiene programs in the United States will be retiring at a high rate in the coming years. Seventeen percent of responding dental hygiene programs reported vacancies in faculty positions with the average length of vacancy being five months (Nunn et al., 2004). The numbers were even bleaker for dental assisting programs participating in the study; 45% of respondents reported vacancies averaging 12 months.

Reasons dental hygiene programs are having trouble filling faculty positions include non-competitive salaries compared with those of private practice, lack of appropriate teaching credentials, and lack of flexibility in the work schedule (Nunn et al., 2004). In order to alleviate the projected shortage of faculty members, new baccalaureate programs are graduating more students to fill the vacancies. These recent graduates will need guidance in their new roles as faculty members. Often, after four years of didactic

and clinical course work, the new graduates are thrown into teaching with little real world preparation for life in academia. It is important that dental hygiene educational programs be proactive in attracting the best and brightest dental hygienists into academia to help alleviate faculty attrition.

*Oral Health in America: A Report of the Surgeon General* (United Sates Department of Health and Human Services [USDHHS], 2000) discussed the significant barriers to access to care for many people in the U. S. One of the key barriers included the shortage of oral health professionals to care for the population's oral health needs. The report detailed information on the link between oral disease and systemic disease. The recent death of a 12-year-old from complications resulting from bacteria from an untreated dental abscess spreading to his brain brought to light the need for more oral health professionals to care for U.S. citizens (American Dental Hygienists' Association [ADHA], 2007a). In light of these facts, the need for additional dedicated educators will increase, not only due to the retirement of current faculty, but also due to the opening of additional dental hygiene programs to help ease the shortage of dental hygienists (Nunn et al., 2004). How institutions of higher education adapt and outline strategies to alleviate the shortage of dental hygiene educators will directly impact the oral health of the U. S. population.

Mentoring in dental hygiene has traditionally taken on the task of acculturating new graduates into clinical life through a mentoring relationship with a clinical hygienist. For the most part, members of dental hygiene professional associations have assumed this responsibility. Blanchard and Blanchard (2006) found few mentoring programs in dental hygiene schools in the United States. The findings showed that, of those schools that

responded, only 25.9% had mentoring programs as part of the dental hygiene curriculum. Many weaknesses were cited in those existing mentoring programs. Administrators stated that the curriculum in two-year programs left little time for structured mentoring activities (Blanchard & Blanchard). Other weaknesses with mentoring programs included the lack of time to devote to mentoring and a lack of faculty members who even supported being involved with mentoring. Unfortunately, findings for mentoring activities specific to baccalaureate programs that graduate dental hygiene educators were not available.

## Purpose of the Study

The purpose of this study was to explore if mentoring is a viable way to contribute to the retention and professional development of novice dental hygiene educators in the United States through researching the attitudes, beliefs, and values that mentors and protégés (novice faculty members) have toward the process. The research sought to uncover the role that a mentor can play in the academic life of dental hygiene faculty members thus enabling the retention of dedicated, competent professionals. In addition, the information gathered from faculty members in the roles of mentor and protégé can be used to develop ideas for training programs to mentor new dental hygiene educators. The directions for further research in many studies on mentoring indicate the need for qualitative research on student mentoring, professional development, and leadership (Blanchard & Blanchard, 2006; Jacobi, 1991; Livingston, Dellinger, Hyde, & Holder, 2004; VanDerLinden, 2005). It is postulated that, with adequate mentoring, dental hygiene educators will stay loyal to the academic discipline throughout their careers.

## Research Questions

The research is guided by the purpose of the study: namely, to ascertain how mentoring can help alleviate a projected shortage of dental hygiene educators through retention and improved loyalty to the discipline. The overarching research question is:

What are the perceptions of novice dental hygiene faculty toward a mentoring process as a factor in developing experience within academic settings?

The design of this study will use qualitative methods to answer the following questions:

1. How can mentoring affect a novice faculty member's adjustment to academic work?
2. What changes are needed to adjust from being a novice to an experienced faculty member?
3. What are novice dental hygiene faculty members' perceptions of the role of mentoring on faculty retention and development?

## Significance of the Study

This study is important for several reasons. The need for more oral health practitioners, particularly dental hygienists, will play a critical role in the availability of oral health care for many Americans. At the same time, faculty shortages are projected to skyrocket in the very near future. There are few research studies that focus on mentoring in the profession of dental hygiene. The results of this study will generate theories on how mentoring enhances professional development and will enable institutions to adopt practices that will help retain quality educators.

The audience for the study includes current dental hygiene educators, new faculty members, and administrators who are determined to improve program efficiency through retention of dedicated faculty members. This study will contribute to the body of knowledge on mentoring, hopefully, leading to program improvement through faculty retention as a result of a mentoring process. It is also hoped that, having been taught by well-mentored dental hygiene educators, associate degree-level dental hygienists will choose to further their education to the baccalaureate level and beyond and enter the world of dental hygiene academia.

## Origins of the Researcher's Interest in the Topic

The potential bias of the researcher will be examined. One way is by bringing to light the researcher's perspective and presenting the reason that the topic was chosen. In this case, the researcher became interested in the topic of mentoring when asked to be a mentor to a baccalaureate student who was finishing her studies with a capstone project. The researcher did not know what to expect of the student or what the student's expectations were. The only instructions received by the researcher were to show the student how to teach. The student happened to be a very good friend of the researcher, and they worked well together. The student knew exactly what the capstone experience objectives were and was prepared for her tasks. The researcher actually had very little to do but to guide the student's lecturing and clinical expertise when working with associate degree-level students.

When the researcher was asked to mentor another capstone student from the program, she readily agreed, which, in hindsight, was a mistake. The student not only did not wait for the capstone course to begin before making plans as to what she wanted to do

for the capstone, but she was not prepared for what was expected of her both as a student protégé or as an intern faculty member. The results were less than satisfactory on both sides. In asking for guidance from the dean, the researcher found that there was no prescription for what was expected of a mentor and no guidelines; only a directive to "show her how you do what you do." After the researcher met with the student protégé, both realized that there was a communication gap when it came to expectations on both sides, and the researcher vowed to improve the mentoring experience for baccalaureate students in the future. The researcher needed to learn how to make mentoring a good experience both for the protégé and for the mentor.

## Theoretical Framework

The theoretical framework that will guide this study is based on transformative learning as proposed by Mezirow (2000). The following suggests that educating adult learners brings about a change.

> Adult learners participate in sustained informal or formal activities that lead them to acquire new knowledge, skills, or values; elaborate on existing knowledge, skills, or values; revise their basic beliefs and assumptions; or change the way they see some aspect of themselves or the world around them. (Cranton, 2006, p. 2)

Thinking of the protégé as an apprentice leads one to view the mentoring process as one that will facilitate an exchange of information leading to a transformation of the protégé from novice to expert in the academic arena. Mentoring seeks to transform a student or new faculty member to be an efficient, effective member of the academic world (Jacobi, 1991; VanDerLinden, 2005).

## Research Design

This research study on mentoring for dental hygiene educators is a qualitative study due to the nature of the purpose of the study, which is to gain insight and a holistic perspective on the topic. The use of qualitative methods facilitates a study of mentoring at a depth and level of detail not allowed by a quantitative approach (Patton, 2002). It measures the reactions of a limited number of people to the phenomena of mentoring, allowing for an increase in the depth of understanding of the lived-experiences of those under study. The setting of the phenomenon of mentoring is social and creates a complex system between the mentor, the protégé, and their surroundings, which lends itself to qualitative research.

This phenomenological study is devoted to gaining an understanding of the process of mentoring dental hygiene educators and looks at how mentoring can strengthen the dedication, retention, and success of new faculty members. This qualitative study allowed the researcher to gain a deeper and more in-depth understanding of the mentoring process and its utility for retention of dental hygiene faculty. The study focused on the real-life experiences using the voices of dental hygiene faculty members including their values, opinions, and beliefs and provides a rich log of data that was analyzed for common themes on the meaning of mentoring and being mentored.

The Code of Ethics of the American Dental Hygienists' Association helped guide the researcher (ADHA, 2006a). An online open-ended questionnaire was designed to ascertain novice dental hygiene educators' perceptions of mentoring process. The questionnaire was developed from a review of the literature and previously designed tools on mentoring, including work by Cambria (2006), Freking (2006), Zachary (2000), and

Rose (2003). The questions were organized into three categories which included mentoring, faculty retention, and faculty development, all of which align with the overarching research question.

## Definition of Terms

*Accreditation.* A non-governmental peer-review process in the United States that measures educational programs and hospital dental services against predetermined national requirements or standards (Donaldson et al., 2008).

*Competencies.* Competencies are written statements describing the levels of knowledge, skills, and values expected of graduates of dental hygiene programs (American Dental Association Joint Commission on Dental Accreditation, 1998).

*Dental hygienist.* A licensed health care professional who supports the health and well being of the American public through oral health promotion, education, prevention, and therapeutic services (Mueller-Joseph, Homenko, Wilkins, & Wyche, 2009).

*Mentor.* An experienced person who provides a protégé "with knowledge, advice, counsel, support and opportunity in the protégé's pursuit of full membership in a profession" (Johnson & Ridley, 2004, p. xv).

*Novice.* As determined by the researcher for the purposes of this study, a novice faculty member will have been teaching for five years or less.

*Protégé.* A person whose welfare, training, or career is promoted by an influential person (Protégé, 2000); often referred to as a mentee.

The researcher will use the words novice and protégé interchangeably. Both of these terms will apply to dental hygiene faculty members who meet the criteria for this study—having been in academia five years or less.

## Limitations and Delimitations

Limitations of a study sum up the problems in the methodology that may hinder the usefulness of the data. The following are limitations of this study:

1. The design of this study is limited to 10 self-designated participants who may or may not be representative of all those dental hygiene faculty members who have experienced mentoring processes. Those who have had negative experiences with mentoring may not have participated in the study, and those who had positive experiences may be over-represented in the study. The study was limited to dental hygiene educators who chose to participate in the study and who were involved in the role of a protégé.
2. The researcher is an active member of the professional associations in Florida and knows many of the dental hygiene educators in the state. It is possible that the participants answered the questionnaire with responses that they believed the researcher expected to find.
3. Respondents may not have expressed descriptions of critical situations in faculty development or the mentoring process.

Delimitations restrict the scope of the research. In this study, the delimitations include the following:

1. Only full-time dental hygiene faculty members were included in the research. The views of adjunct faculty members may have provided further perceptions on the importance of mentoring.
2. This study was conducted in Florida. Dental hygiene faculty perceptions of programs in other parts of the country may be different.

## Organization of the Study

The organization of this study consists of five chapters which include figures, references, and appendices. Chapter 1 presents of an overview of the study including a statement of the problem, the purpose of the study, the theoretical framework guiding the study, the research questions, significance of the study, the origins of the researcher's interest in the topic, a definition of terms, limitations and delimitations, and a chapter summary. Chapter 2 includes a review of the literature on the topics of mentoring, transformative learning, the dental hygiene professional paradigm, dental hygiene education, faculty development and retention, and concludes with a chapter summary. Chapter 3 describes in detail the following: the philosophical framework; the rationale for a qualitative study; the rationale for a phenomenological study; the research questions; and the methodology utilized during the research including the role of the researcher, sampling methodologies, data collection and processing procedures, data analysis procedures, standards of quality and verification, and ethical considerations. Chapter 3 ends with a brief chapter summary. Chapter 4 consists of an introduction; a description of the demographics of the participants; the results of the study including the thick, rich descriptions of the phenomenon based on perceptions of the participants; a summary of findings; and a chapter summary. Chapter 5 summarizes the study including the purpose, significance, methods employed, and limitations. This chapter also discusses the results, makes recommendations for further research on the topic, and concludes with a chapter summary.

## Chapter Summary

Dental hygiene education will face tough choices in the next few years. Many current educators will leave the field as more dental hygiene programs are opening their doors. The dental hygiene profession needs to secure a way to keep new educators in rich, rewarding environments, and to encourage more dental hygienists to become dental hygiene educators who remain loyal to the academic discipline. Using the transformative learning theory, this study answers the basic questions on whether mentoring can enhance the roles of novice dental hygiene educators, leading to professional development and higher rates of retention of dedicated, qualified dental hygiene faculty.

# CHAPTER II

# REVIEW OF THE LITERATURE

## Introduction

The role of the dental hygienist as a healthcare provider began in the early 20th century with Dr. Albert C. Fones, who trained his dental assistant to provide preventive educational services for patients (Daniel, 2002; Darby & Walsh, 2003; Wilkins, 2005). Since then, the dental hygiene profession has undergone changes in many areas, from licensure and educational requirements, to the role of the dental hygienist in healthcare, to changes in the scope of practice for the profession (American Dental Hygienists' Association [ADHA], 2005; Daniel, 2002; Darby & Walsh, 2003; Mueller-Joseph, Homenko, Wilkins, & Wyche, 2009). These changes necessitate competent, focused dental hygiene faculty members who can bring new information to students and colleagues.

Since the dental hygienist is part of the dental team, and many dental schools have baccalaureate dental hygiene programs that graduate dental hygiene educators, dental and allied health faculty serve as an appropriate source for information about mentoring programs. In addition, given that dental hygiene is also part of overall health care, data on faculty at colleges and universities providing medical and nursing programs also serve as a stepping stone for research in dental hygiene faculty mentoring.

The purpose of this study is to determine if mentoring is a viable way to contribute to the transformation from novice to experienced faculty and if mentoring leads to the retention and professional development of dental hygiene educators in the

United States. The study researches the perceptions, attitudes, beliefs, and values that mentors and protégés have toward the process.

The context for this study is a broad setting of dental hygiene faculty members from associate degree dental hygiene programs in Florida. This chapter reviews the significant literature in dental hygiene and dental hygiene education, the theoretical framework of transformative learning on which this study was developed, mentoring in higher education and business, and how mentoring can lead to increased retention and professional development for dental hygiene educators. The following holds true for all faculty both as students of the academic processes and as life-long learners:

> The aim of education is not only to prepare students for productive careers, but also to enable them to live lives of dignity and purpose; not only to generate new knowledge, but to channel that knowledge to human ends, not merely to study government, but to help shape a citizenry that can promote the public good. (Boyer, 1990, p. 77-78)

## Mentoring

Mentors have influenced many leaders throughout modern history. Both social activist Nelson Mandela and Malcolm S. Knowles, an influential figure in the field of adult education, cited the guiding influence of their mentors on their studies in social responsibility and adult education, respectively (as cited in Daloz, 2000; Knowles, 1989). Mandela and Knowles each stated that meeting and working with their mentors facilitated a change in how they learned and led them to question previously held assumptions. Daloz (2000) indicated that part of the transformative process relies on the power of relationships that we experience. Relationships that encourage professional development

assist individuals when faced with challenges moving through careers and through life experiences (Kram, 1988).

An early review of the literature on mentoring found that the settings that most often utilized a mentoring process were business, adult development, and academia (Merriam, 1983). Evidence has suggested that there are two main functions of mentoring: career functions and psychosocial functions (Hopkins & Grigoriu, 2005; Kram, 1988; Merriam, 1983; Scandura, Tejeda, Werther, & Lankau, 1996). Career functions include coaching, protection, and sponsorship, which may enhance career advancement. Psychosocial functions of the mentoring relationship include role modeling, counseling, and friendship, which add to a sense of competence in the role of a professional. The mentoring relationship allows mentors to address concerns about self, career, and family, and it benefits both mentors and protégés by acknowledging the concerns of both parties (Kram).

In business, the mentoring process is recognized as a helping relationship with superiors, peers, and or subordinates, and often plays a key role in leadership (Bennis & Nanus, 1997; Johnson & Ridley, 2004; Kram, 1988). Leaders learn from experience and are able to identify mentors who helped form their beliefs, characteristics, and operating styles (Bennis & Nanus). An analysis of leadership found that attributes of leadership and leadership development can be strengthened or weakened by a mentor (Gardner, 1990). Gardner referred to mentors as people who recognize the task of their jobs, have a willingness to try, have concern and patience, and are "good farmers rather than inventors or mechanics" (p. 169), a metaphor used in other studies on mentoring to describe the mentoring process and cultivating competent employees (Zachary, 2000).

*The Role and Duties of a Mentor*

A mentor is a role model who teaches a protégé how to respect those whom the protégé will one day lead and who is seen by the protégé as a friend, guide, advisor, teacher, sponsor, coach, listener, and resource person (Gardner, 1990; Johnson & Ridley, 2004). Mentors provide protégés with knowledge, advice, support, and opportunity; they set high expectations and model the same excellence (Johnson & Ridley). Administrators in higher education institutions often have had mentors who played roles in their careers. VanDerLinden (2005) investigated professional development and mentoring with community college administrators in Michigan and found that significant sources of social support came from mentors and the professional networks that had been formed during the process. In addition, the participants in the study stated that mentors can assist in learning, provide advice and encouragement, and may help reduce obstacles concerning both professional development and family socialization (VanDerLinden).

The Association of California Community College Administrators (ACCCA) sponsored a mentoring program for junior-level administrators in that state (Valeau & Boggs, 2004). It was found that, for those who had participated in the statewide mentoring program, mentors provided exposure to certain activities and networks, offered training on special skills, and assisted with political aspects of the job. An assessment of the ACCCA mentoring program found that 97% of the respondents indicated they would recommend the program to others (Valeau & Boggs).

The context of the mentoring environment is an important consideration. Just as teachers construct an educative moment in order for students to learn, mentors can do the same for their protégé. Two primary activities that provide a positive mentoring

experience include providing emotional support and creating a strong relationship (Yendol-Hoppey & Dana, 2007). One of the duties of the mentor is to guide the protégé's knowledge development in areas such as curriculum, classroom management, content, and context. In addition, the mentor may provide emotional support and may also have the responsibility of cultivating the protégé's disposition as a successful educator through work ethic, inquiry, and collaboration (Yendol-Hoppey & Dana).

*The Role and Duties of the Protégé*

More studies have focused on the role of the mentor than on the role of the protégé. The role of a protégé is that of a learner who knows what he/she wants to learn and why it is important to do so (Zachary, 2005). In recent years, the role of the protégé has grown from passive recipient to active participant in the process. The perceived goals of the mentoring process and how success will be measured are important considerations for the protégé. In addition, it also is prudent for the protégé to know how to negotiate challenges and to have a plan to achieve the goals (Zachary, 2000).

Further, a protégé needs to clarify requirements, take responsibility, be an objective observer, ask questions, take risks, reflect, and give feedback to mentors (Portner, 2002). Portner stated that since mentoring takes place in a working relationship, both parties are required to participate. The researcher found that it would be in the best interest of the protégé to take the initiative and follow the stages of group development, which include exploring the boundaries of the relationship to build trust; understand that not all aspects of the relationship will be smooth, employ collaboration, and share a sense of loyalty.

*Risks, Rewards, Challenges, and Opportunities of Mentoring*

The mentor, the protégé, and the organization all reap benefits from high-quality mentoring (Scandura, Tejeda, Werther, & Lankau, 1996). It has been argued that mentored employees are more likely to remain committed to the organization (Johnson & Ridley, 2004). It is imperative that the mentor and protégé have a relationship that is mutually beneficial to the dyad and to the institution (Schrubbe, 2004). Relationships that contribute positively to one's growth in both a personal and a professional sense help ensure a high quality work life (Kram, 1988). Kram posited that one's overall sense of well-being can be enhanced by the quality of life achieved through work. It is not only the protégé who benefits from the mentoring process; the mentor also benefits. For faculty members who are in the middle years of academic life, mentoring serves as a way to reflect and assess their own careers, reinforce their achievements, and offer collegial support (Baldwin & Chang, 2006; Kram).

The mentoring relationship is limited in its duration due to its inherent nature (Kram, 1988). In addition, the protégé may learn quickly and no longer need a mentor's guidance, the mentor may be reassigned to another department or protégé, and/or the mentor may feel that the time is not well-spent when there are so many other issues that take up the little free time of a faculty member (Kram). Threats to the relationship may include unmet expectations on the part of the mentor, the protégé, and the institution; apprehension; confusion; indifference; frustration; and anxiety (Zachary, 2005).

Within education, there are many logistical factors that can complicate mentoring (Yendol-Hoppey & Dana, 2007). The mentor's and the protégé's life experiences, abilities, language, race, culture, and entry routes into teaching can all be complicating

factors either individually or in combination. The mentoring program itself can also create hurdles. These hurdles may include whether the length of the program will allow a successful relationship between the mentor and the protégé, whether the program is based on an apprenticeship or cohort model, or if the mentor is a retired educator or an educator who is still working full-time. In addition, the educational institution itself may provide some impediment to a thriving mentoring process, such as the location of the school in a rural or urban setting, whether the school is public or private, or the socio-economic statuses of those involved in mentoring at the school. The answers to these questions may have a direct relationship on the success of the mentoring process (Yendol-Hoppey & Dana). Although the research of Yendol-Hoppey and Dana was based on mentoring in a variety of primary and secondary educational settings, the information was valuable to this researcher as background on mentoring processes.

*Conditions that Encourage Mentoring*

Fagenson-Eland, Baugh, and Lankau (2005) interviewed 27 mentoring dyads at two high technology companies and found that a single-source approach to studying mentoring processes provides accurate representation of the perceptions of both partners in the dyads. In this study, there were differences in the perceptions of mentoring activities if the age difference between mentor and protégé and time spent in the profession were significantly different. In a study of novice teachers, Giebelhaus and Bowman (2002) found that mentors who had training in the process of mentoring had a more positive impact on new protégés. The researchers posited that mentoring is a critical issue for teacher education programs when the political aspects of assessment and accountability of these programs and their graduates are taken into account.

Whether the relationship is a formal or informal process depends on the participants and the organization (Hopkins & Grigoriu, 2005; VanDerLinden, 2005). A study of college administrators suggested that formal processes were not necessarily requisite for success (VanDerLinden). A study of mentoring and leadership development practices in health care organizations looked at the leadership development and mentoring programs being used, what had been done in the past, and suggestions for the future (McAlearney, 2005). Most health care experts in the study stated that they did not participate in institution-wide formal leadership development or mentoring programs. The same held true for the health care executives who were interviewed. In the study, healthcare programs with a history of mentoring suggested that the culture of the organization and the development of future leaders were dependent on the mentoring process. The results of the study suggested that future development of leaders in health care organizations is dependent on formal mentoring programs supported by the organization.

Mentoring has been perceived as a type of learning community in which the mentor and the protégé form an alliance with common goals (Zachary, 2005). It is important that mentoring is embedded in the culture of the institution to promote shared responsibility, create openness, maximize resources, and support integration of processes (Zachary). To embed mentoring into the institution's culture, the leaders of the institution could provide value for mentoring, have an understanding of the time invested in a mentoring relationship, be willing to commit both financial and human resources to mentoring activities, and be able to apply and support technology to communicate and disseminate information on mentoring (Zachary).

*Mentoring in Higher Education*

The goals of teaching students to learn, creating a collaborative culture, and focusing on results require hard work and commitment (DuFour, 2005). Upon accepting a faculty position, a faculty member may find the actual work environment one of the most challenging aspects of the job. The top challenges often faced by faculty development professionals include the multi-faceted roles of the faculty, teaching for student-centered learning, and the integration of technology (Sorcinelli, Austin, Eddy, & Beach, 2006). These challenges can lead to disillusionment and low retention of faculty. The ultimate goal is for novice faculty members to become quickly acclimated into the social environment found in academe (Mullen, 2008). Often the best way to navigate through this maze is to emulate those who are successful faculty members.

In higher education, mentors are often called on to assist students in understanding concepts and are often seen as role models. It is a mentor who can help transform the student into the educator or transform a new educator into a successful educator by facilitating communicative knowledge through understanding demographic differences, encouraging and supporting learning, encouraging reflective discussion, and providing opportunities (Cranton, 2006; Daloz, 2000). Mentoring creates a learning community whereby the mentor and the protégé can work collaboratively to help achieve the mission of the institution (Zachary, 2005).

While informal mentoring may take place without the institution's knowledge, many institutions have formal mentoring programs for new faculty members. Mullen (2008) compiled several case studies of formal mentoring programs found at various colleges and institutions of higher education across the country. The research showed that

successful mentoring programs depend on synergistic partnerships through various forms and are assessed in a variety of ways, depending on the institution.

## Transformative Learning

The major theory that guides this study is Mezirow's Transformative Learning Theory. This theory seeks to explain how adults make meaning of their experiences using frames of reference or assumptions found in their worlds (Mezirow, 1997). The participant's frame of reference is comprised of "habits of mind" (Mezirow) and point of view. This framework focuses on the communication through a discourse of values and beliefs. Mezirow stated that the process of transforming involves "critical reflection of assumptions, validating contested beliefs through discourse, taking action on one's reflective insight, and critically assessing it" (p. 11). The transformative theory has been firmly rooted in the literature of adult learning theory and adult development (Anfara & Mertz, 2006). The theory guided this study by providing a process for determining the research questions, making meaning of the process of mentoring to help the participant transform to an experienced faculty member, and, thereby, added to the body of knowledge on mentoring for dental hygiene faculty.

There is evidence to suggest that the primary goal of adult education is transformative learning (Cranton, 2006; Mezirow, 2000; Mezirow & Associates, 1990). The views held by the novice faculty member (as a student) may not be the same views held by the faculty member as an educator. The move from student to academician calls for a new set of ideas and ideals in order to be a successful educator (Sparks, 2005). Sparks referred to the learning community occurrences that lead to this transformation as the experiences that literally change the epistemology of teachers and administrators. The

researcher posited that these are the experiences that enhance professional judgment. The focus of the theory holds that one learns to negotiate and justify his/her own assumptions by constructive discourse or searching for a common understanding with others, rather than blindly relying on assumptions of others (Mezirow, 2000).

The nature of adult learning is to allow the individual to become an "autonomous thinker by learning to negotiate his or her own values, meanings, and purposes rather than to uncritically act on those of others" (Mezirow, 1997, p. 11). Adult learners make knowing a learning process and emphasize understanding, reflection, and validation of the interpretation of accepted truths (Mezirow, 2000). Experienced faculty rethink their assumptions about teaching; experiences that are collaborative and participatory can transform knowledge and lead to changes in self-perception (Cranton, 2006; Fink, 2003; Knowles, 1989). Thinking of the protégé as an apprentice leads one to view the mentoring process as one that will facilitate an exchange of information leading to a transformation of the protégé from novice to expert in the academic arena.

Mentoring seeks to transform a student or new faculty member to be an efficient, effective member of the academic world (Jacobi, 1991; Cranton, 2006; VanDerLinden, 2005). The educated person of the 21st century will be one who is not only a knowledgeable person, but one who has the ability to anticipate new conditions and transform from simply a knowledgeable person into also being a competent person (Knowles, 1989). Knowles further acknowledged the transforming era in which educators are now working, that of a "third wave of humanity--people who value and excel in constant change" (p. 150).

Transforming oneself from a student to an educator requires that the previously held assumptions, beliefs, values and perspectives are called into question. The heart of what transforms during a transformative learning experience is a way of knowing or a frame of reference (Mezirow, 2000). When using the transformative learning theory, it has been stated that the learner becomes more aware and critical in assessing assumptions, more aware of different paradigms and frames of reference, and more responsible and effective at working with others to solve problems (Mezirow, 1997). Faculty shift from a socialized epistemology on how they know what they know to an epistemology that is self-authored (Kegan, 2000). The publication of *Women's Ways of Knowing* (Belenky, Clinchy, Goldberger, & Tarule, 1986) was an example of how commonly held beliefs about how women learn and know were transformed. Previous to the authors' study, it was held that men and women learned the same. Consideration of this significant research is especially important for dental hygiene faculty who facilitate the learning of primarily female students.

## Role of the Dental Hygienist as a Healthcare Provider

The dental hygienist has developed from the girl who cleans teeth in the dental office to a consummate preventive expert, and the profession has evolved into an integral component of the healthcare system. The profession of dental hygiene has evolved through the recognition of conceptual models of dental hygiene care, the responsibilities of the individual professional, the dental hygienist's interrelated roles, the evolution of educational programs, the advancement of the professional organizations, and the expansion of scientific literature to support these endeavors (Daniel, 2002; Darby & Walsh, 2003; Lautaur, 1995).

The development of the plaque theory of oral disease ushered in the era of the dental hygienist as an oral health promotion and disease prevention specialist (Daniel, 2002; Matsuda, 2005; USDHHS, 2000). This new paradigm brought with it a new understanding of dental hygiene education. Educators now had the challenge of teaching students not only how to technically be able to prevent disease through thorough clinical treatment of clients, but also how to teach the student to educate the individual client on taking responsibility to prevent his/her own illness and disease (Cohen, 2002; Harfst, 2002; Harfst & Vick, 2002; Johnson, 2003; USDHHS, 2000).

*Importance of Oral Health*

*Oral Health in America: A Report of the Surgeon General* (USDHHS, 2000) was the first comprehensive report on the status of the U. S. population's oral health. The Surgeon General's report described the strides made in the 20th century including the decrease in the caries (decay) rates due, in part, to community water fluoridation. However, the report also discussed the significant barriers to access to care for many people in the U. S. One of the key barriers cited in the report included the shortage of oral health professionals to care for the population's oral health needs. The Surgeon General's Report detailed information on the link between oral disease and systemic disease and the importance of good oral health to total health. For instance, caries (tooth decay) and periodontal diseases are two of the most infectious diseases present in the U. S. population; invasive dental procedures may result in infective endocarditis; and, the oral complications associated with HIV can lead to loss of appetite, painful sores, weight loss, and potentially life-threatening fungal infections. Periodontal diseases have been linked

to low birth weight, premature births, heart disease, stroke, uncontrolled diabetes, and stress.

The 2007 death of a 12-year-old from complications after bacteria from an untreated dental abscess spread to his brain brought to light the need for more oral health professionals to care for U.S. citizens (ADHA, 2007a). This case is especially troubling since dental caries is one of the most prevalent childhood diseases in the U. S. (USDHHS, 2000).

According to the Bureau of Labor Statistics (2007), there were approximately 167,000 dental hygiene positions in 2006, and it has been projected that there will be a 30% increase in employment by the year 2016, or as many as 217,000 available positions for dental hygienists in the United States.

The advancement in the recognition of the interface between oral health and overall health and the increase in the number of elder age individuals with a complete or partial dentition suggested the need to change the dental education paradigm in order to improve the availability of accessible preventive and restorative services (Cohen, 2002; USDHHS, 2000). Cohen postulated that as a consequence of the link between oral and overall health and the future merger of medical and dental education, dentistry may become a specialty of medicine known as stomatology, thus leading to a more holistic approach to dental and dental hygiene education.

After the publication of the *Surgeon General's Report on Oral Health*, the American Dental Education Association (ADEA) brought together a team of educators to explore the roles and responsibilities of academic dental institutions (Haden et al., 2003). The Commission recommended that dental academic institutions involve themselves in

several activities including monitoring workforce needs, improving the oral health care delivery system, educating students to provide care to diverse populations, increasing diversity in the oral health workforce, and improving the effectiveness of allied health professionals in reaching the underserved.

*Dental Hygiene Professional Paradigm*

As an oral health promotion and disease prevention specialist, the dental hygienist is on the front line to assist the client in the prevention of dental caries, the prevention of periodontal disease, the prevention and early detection of oral cancer, and the prevention and control of unintentional and intentional injuries (USDHHS, 2000). In order to accomplish these tasks, the conceptual framework for the practice of dental hygiene consists of five key categories: assessment, diagnosis, planning, implementation, and evaluation (Darby & Walsh, 2003; Mueller-Joseph & Peterson, 1995). These categories are incorporated into the dental hygiene curricula of schools in the United States and abroad (Johnson, 2003).

*Licensure and Educational Requirements*

Health professionals and members of society at large recognize the unique knowledge and skills of dental hygienists. Although it is necessary to obtain a license to practice the profession of dental hygiene in all 50 states, requirements for licensure vary by state (ADHA, 2007b; Wing, Langelier, Continelli, & Battrell, 2005). For instance, in Florida, prospective dental hygiene licensees must be age 18 or older, be a graduate of a dental hygiene program accredited by the Commission on Accreditation of the American Dental Association or be a foreign-trained dentist, pass the National Dental Hygiene Board Examination (NDHBE) within 10 years of application, pass a state jurisprudence

examination, and pass a clinical examination on a live patient (Florida Board of Dentistry, 2007).

In Georgia, licensure may be obtained by graduation from an accredited dental hygiene program, successful completion of the NDHBE and the Southern Regional Testing Agency (SRTA) examination, and a jurisprudence examination and certified report from the National Practitioner Data Bank (Georgia Board of Dentistry, 2007). Dental hygiene educators in several states must also obtain a license to teach (ADHA, 2007b). In all 50 states, dental hygienists serve on governing boards, and in several states, dental hygienists participate directly in regulation of the profession through advisory committees or through varying degrees of self-regulation (ADHA, 2006b).

## Dental Hygiene Education

In the past, dental hygiene education focused strictly on technical skills; today, dental hygiene education focuses on both scientific and technical knowledge and the ability to engage in evidence-based decision making, all while keeping in mind the competencies needed by graduates of the program (Darby & Walsh, 2003). This change has facilitated modifications in the curricula in dental hygiene programs to include a variety of topics, from cultural competency and problem-solving to implementation of new technologies.

### *History of Dental Hygiene Education*

In 1907, Irene Newman became the first member of the dental hygiene profession when she was hired to scale the teeth of the patients of her cousin, Dr. Alfred C. Fones. Due to the popularity of this type of preventive therapy, Dr. Fones realized the need for an educational program to train more hygienists. In 1913, he opened a school in the rear

of his carriage house, which had also served as his office. The first class consisted of 34 women, some of whom were nurses, teachers and the wives of doctors. Instructors included local dentists, instructors from Yale and Columbia University dental schools, and foreign dentists. The first dental hygienists graduated from Dr. Fones' school in 1915; the school stayed open for several years. The first college courses in dental hygiene were held in 1949 at the University of Bridgeport, Fones School of Dental Hygiene (University of Bridgeport, n. d.). Since that time, there has been a growth in the need to educate more oral health preventive care specialists. With the exception of some on-the-job-trained dental hygienists in Alabama, and foreign-trained dentists in some states, the entry-level dental hygienist has a two-year degree from a dental hygiene school accredited by the American Dental Association Joint Commission on Accreditation (Bureau of Labor Statistics, 2007).

*Institutions and Their Missions*

The number of dental hygiene programs in the United States has increased by 111 since 1990; in 2008 there were 296 programs (ADHA, 2008a). There are approximately 80 programs centered in four-year institutions and just over 200 programs housed in two-year institutions. A recent change is the inclusion of online learning. As of February 2007, there were 26 degree completion programs that were totally online and six online masters degree programs (ADHA, 2007c). The changes in trends in dental hygiene education are not limited to the United States.

One of the missions of a dental hygiene educational program is to produce graduate students who will become capable, ethical, and competent dental hygienists (St. Petersburg College, 2008). Competency documentation is facilitated by following the

guidelines set out by the American Dental Association (ADA) Commission on Dental Association (CODA). The core competencies include all aspects of the profession based on ethics, values, skills, and knowledge (American Dental Association, 2004; ADEA, 2008; ADHA, 2007d). These core competencies provide the foundation for health promotion and disease prevention, patient/client care, community involvement, and professional growth and development. In addition to developing competencies necessary for graduation, the ADA CODA also provides other guidelines including the ratio of faculty to students and educational requirements for full-time faculty.

How institutions of higher education adapt and outline strategies to alleviate the shortage of dental hygiene educators will directly impact the oral health of the U. S. population (DePaola & Slavkin, 2004; Haden et al., 2003). In addition to hiring baccalaureate-degree faculty, some associate-degree programs hire adjunct faculty with associate degrees to serve as clinical instructors; however, since the associate programs focus on preparing students for clinical practice, there is little, if any, opportunity to acclimate these adjunct faculty members to educational theory and research methods (Rowe, Massoumi, Hyde, & Weintraub, 2008).

According to a recent report of the American Dental Education Association, the focus for the future of oral health delivery may change dental hygiene education as it is currently structured (McKinnon, Luke, Bresch, Moss, & Valachovic, 2007). The three new workforce models, as proposed by the three major contributors to dental hygiene education, include the American Dental Hygienists' Association's Advanced Dental Hygiene Practitioner; the Community Dental Health Coordinator of the American Dental Association; and the Dental Health Aid Therapist, as proposed by divisions of the federal

government. Each of these workforce models is different in the levels of supervision, education, and credentialing requirements. This may have a profound effect as the institutions of higher education that house the dental allied health programs will need to adapt to the new models. The authors of the report recommended that the academic community be prepared for the changes that are ahead (McKinnon et al., 2007). These changes may include new faculty structure, curriculum adjustments, and financial support for the educational alterations that the programs establish.

*Dental Hygiene Faculty and Credentials*

One of the fields of academia most severely affected by a decline in the number of faculty is allied health education, including dental hygiene. The average age of a full-time dental hygiene educator is 46 years (Nunn et al., 2004). A survey of 266 dental hygiene programs in the U. S. estimated that within the next few years, 68% of the responding programs would need to replace full-time faculty; 73% of the programs attributed the problem to retirement of existing faculty (Nunn et al., 2004). This projected shortage of qualified faculty is also found in Canadian dental hygiene programs (Mitchell & Lavigne, 2005).

Currently, professional dental hygiene organizations in the U. S. and Canada have called for standardization of entry into the field at the baccalaureate level rather than at the associate degree or certificate level (ADHA, 2005; Mitchell & Lavigne, 2005). This paradigm change poses several challenges. Dental hygiene educators and administrators have an opportunity to develop curricula that address teaching and learning new technologies, new delivery of dental hygiene services, higher-level educational models,

and new scientific evidence-based knowledge, while at the same time preparing a large number of dental hygienists to meet the clinical and non-clinical workforce demands.

If the baccalaureate degree is to be the degree for entry into the profession, the education of faculty may also undergo a change. Associate degree programs often hire full-time faculty with baccalaureate degrees; the baccalaureate programs will need more educators with advanced degrees. This will put a further strain on the already diminishing number of qualified faculty. In light of these facts, the need for additional dedicated educators will increase, not only due to retirement of current faculty, but also due to the opening of additional dental hygiene programs intended to ease the shortage of dental hygienists (Nunn et al., 2004; USDHHS, 2000).

## Faculty Retention and Professional Development

Faculty members are, according to research, the most valuable resource and an essential investment of education (Menges, 1999; O'Banion, 1997; Schuster & Finkelstein, 2006; Shepherd, Nihill, Botto, & McCarthy, 2001; Sorcinelli, Austin, Eddy, & Beach, 2006). Consequently, the importance of professional development in serving the needs of faculty members cannot be overstated (Boyer, 1990; Sorcinelli, Austin, Eddy, & Beach). Faculty development programs may include topics on course preparation, research and teaching methodologies, and ethnic and social diversity. The primary goals of faculty development programs include producing cultures of teaching excellence, answering faculty needs, and moving new proposals in teaching and learning forward (Sorcinelli, Austin, Eddy, & Beach). The modern history of faculty development has gone through several stages since its beginnings. From the Age of the Scholar in the 1950s and 1960s, to the Age of the Network in the 2000s, faculty development has had to

change with the times and needs of the academic society (Sorcinelli, Austin, Eddy, & Beach).

In order to support new dental faculty members at a research university, a faculty development seminar was designed (Behar-Horenstein, Schneider-Mitchell, & Graff, 2008). The seminar consisted of six consecutive weekly meetings and the curriculum for the faculty development seminar was based on the importance of the curriculum, the relationship between curriculum and instruction, critical thinking, and learning styles. The faculty members were asked to provide the researchers with learning journals which required critical thinking and reflection on their beliefs and perceptions about teaching practices. The study of faculty perceptions uncovered several themes which were supportive and encouraged growth. The themes included new knowledge, planned change, awareness, changes made, current practice, and challenges to learning. The researchers stated that the collegial community of learners created through the faculty development seminar had a positive effect on the participants and could be used as a model for other institutions (Behar-Horenstein, Schneider-Mitchell, & Graff).

*Institutional Responsibility and Leadership*

The U.S. Secretary of Education, Margaret Spellings, convened a commission in 2005 to study higher education in the U.S. The Commission found that the environment of higher education in the first decade of the 21st century was full of challenges. Indeed, the title of the Spellings Report of 2006 is *A Test of Leadership,* and administrators in higher education in the 21st century may be faced with seeing if higher education will meet the challenges that are ahead. The goals of the report include providing a world-class higher-education system accessible to all Americans and high-quality instruction

from postsecondary institutions that give Americans the workplace skills needed to adapt to a changing economy (U.S. Department of Education [USDOE], 2006). In order to meet the goals of the Spellings Commission, faculty involvement is important since institutions will not be able to provide first-class education to students without a learned faculty.

Misunderstandings about faculty work and socialization often lead to problems in retaining competent faculty (Boice, 2000; Menges, 1999). Menges's research on new faculty and their acculturation into academia was undertaken to learn how new faculty members transitioned best into new jobs. The New Faculty Project was based on data gathered from new faculty members from five diverse colleges and universities. The findings of the research centered around four topics fundamental to faculty lives: stress, time allocation, job expectations, and performance evaluation. Menges (1999) suggested that higher education administrators use this information to develop faculty development strategies to assist in faculty transition. Boice (2000) posited the following strategies for new faculty: a clarification of unspoken rules, an explanation of faults that are common to novice teachers, suggestions on how to more easily perform research, and mentoring for success.

Leadership plays a critical role in the success of the college or university. Slavkin and Lawrence (2007) examined the Dean's Leadership Course at the University of Southern California, School of Dentistry. A learning organization was formed with faculty, staff, and students to incorporate leadership knowledge into the curriculum. The researchers concluded that the course provided a learning opportunity to nurture individuals who are interested in leadership in the dental education environment.

Organizations can be transformed by a leadership style that uses a transformation model (Leithwood, Jantzi, & Steinbach, 1999; Palestini, 1999). The transformational leader or organization guides by recognizing opportunities and capacities, creating new visions, and organizing commitment from faculty and administration. Looking at research concerning faculty stress, a strong relationship was found between community college teacher burnout, leadership, and organizational factors (Leithwood, Jantzi, & Steinbach). The researchers posited that establishment of an institutional culture of mutual support among teachers and colleagues will assist in maintaining a sense of personal accomplishment for all parties involved in the educational processes.

Additionally, Palestini (1999) stated that the culture of the organization is of great importance when determining the course of direction the institution will take in the future. Key issues in institutional viability include motivation, communication, conflict management, and strategic planning. Institutions of higher education must recognize the rapid pace of change found in learning, motivation, the faculty, and the needs of faculty leading to increased faculty retention.

It is important for faculty development to acknowledge the changing pace of careers. The ADEA Commission on Change and Innovation (CCI) queried faculty members in U.S. dental schools to ascertain which changes were needed to promote successful academic careers (Trotman, Haden, & Hendricson, 2007). It was found that the level of satisfaction with professional development opportunities at the dental schools ranged from adequate to highly dissatisfied. Considering the changes occurring in the 21st century, the mission statements of the educational programs need to reflect the value of faculty development. These changes include, but are not limited to, the demographics of

the client, student, and faculty; the use of technology; and the scientific knowledge base (Boyer, 1990; Knowles, 1989). Educators in the 21st century have the task of coping with an accelerated pace of change requiring a new paradigm from knowledge to competence (Knowles).

Faculty members must have an awareness of their needs, the encouragement that professional development can provide, the time to learn how to succeed, the resources necessary to change, an understanding about learning, recognition for their accomplishments, and reward for their hard work (Fink, 2003). It would be in their best interest for faculty members to establish credentials as researchers, stay up to date with developments in their chosen fields, have high integrity, and undergo performance assessment because, as Boyer (1990) stated, the art of teaching has a direct influence on both research and practice.

A primary dilemma facing dental hygiene program directors and deans is finding qualified, dedicated faculty members who, once they are hired, will feel acclimated enough to academia to stay on the job (ADHA, 2008b). The survey of dental hygiene program directors found that recruitment of qualified faculty was a primary concern for 32% of the respondents. In addition, the program directors described recruitment as either very difficult (22%) or somewhat difficult (44%) (ADHA, 2008b). New faculty members have to contend with two roles: that of a faculty member and that of a learner or student of the processes involved with becoming a successful faculty member (Boyer, 1990). Pressure is also exerted on faculty trying to meet demands of others' expectations at work, personal commitments, and lack of interaction with other faculty members (Shepherd, Nihill, Botto, & McCarthy, 2001). Career satisfaction of faculty members in

higher educational institutions is dependent on several factors including the work environment, salary, and the workload (Collins, Zinskie, Keslula, & Thompson, 2007; Shepherd et al., 2001).

The literature on advice for faculty is extensive, and one of the seminal texts on being a member of academia discusses some of the ideological differences in what it means to be a scholar (Boyer, 1990). Boyer posited that the art of teaching is as valuable an asset to the quality for institutions of higher education as is the art of research. This especially holds true in two-year colleges in which the focus for faculty is on teaching and learning rather than on research; it is in the two-year colleges where most dental hygienists are educated and where most dental hygiene faculty work (ADHA, 2007d).

The importance of new faculty feeling comfortable reaching out for help is critical to the retention of competent faculty members (Boice, 2000). Boice found that faculty who, early in their careers, reached out for help thrived while those who were struggling without help often left their positions. It was further determined that new faculty members will benefit from understanding how mentoring can assist in their success when pride and suspiciousness are left out of the mentoring process.

*Issues of Diversity*

The total population of students attending accredited dental hygiene programs in 2006 was overwhelmingly white (82.6%) and female (97.1%), as was the dental hygiene faculty, with 88.9% white and 80.1% female (American Dental Association, 2007). The number of white students enrolled in dental hygiene programs in the United States in 2007 dropped to 81.1%; the number of female students dropped to 96.9%; and the number of white faculty rose to 89.1% (American Dental Association, 2008). Research

has shown that there is a lack of diversity in dental hygiene faculty characteristics and that this shortage of underrepresented minorities and males may lead to an overall shortage of faculty to meet the needs of future dental hygiene students (Collins, Zinskie, Keskula & Thompson, 2007).

Some key challenges for dentistry in the coming years include access to care and diversity of faculty (Davis et al., 2007). An important aspect determining the effectiveness of an institution is the diversity of the faculty. It is critical that the demographics of the faculty represent those of the students and the clients who are served by the profession (Davis et al., 2007; Gates, Ganey, & Brown, 2003). In order to increase the access to care for those in need of oral health care, an equal balance is needed between the diversity of the workforce and the diversity of the clients (USDHHS, 2000). One of the ways the dental education community can fulfill their mission to be community health leaders is to graduate socially and culturally aware graduates (Davis et al., 2007). Mentoring will help faculty be more culturally aware and understand their responsibilities to the community.

Research with the New Faculty Project showed that, often, faculty of color found it difficult to have working relationships with mentors (Alexander-Snow & Johnson, 1999). Respondents of the New Faculty Project declared frustration over the lack of mentors and also with a lack of commitment to mentoring faculty of color. Without adequate mentoring, faculty of color may have a difficult time with the tenure process. Recommendations for institutions, based on the New Faculty Project, include the following: anticipatory socialization, or taking on the norms of a faculty member while still in school; orientation programs that describe in detail what the expectations and

policies are; providing a promotion and tenure handbook for all faculty; setting an agenda for research and teaching productivity; and a strong mentor-mentee (protégé) program (Alexander-Snow & Johnson).

Conklin and Robbins-McNeish (2006) uncovered four barriers to faculty diversity in their research on student populations and faculty. The findings asserted that barriers to progress in having a more diverse faculty included four interrelated issues. First, organizations resist change. The culture and climate of the institution often have difficulty adapting. Rudolph (1990) stated that from the beginning of higher education in the U.S., institutions of higher education were typically designed for the benefit of selected white males. Second, published versus real rules on the diversity of faculty differ. On paper, college missions concerning diversity issues often are not reality, as discussed in the research of McPhail and McPhail (2006) on prioritization of community college missions. Third, hiring, retention, and upward mobility were found to be problematic. In order for more diverse faculty to be retained, it was stated that the diverse faculty have to have a chance to succeed through use of a pipeline to recruit more competent faculty into academia. The last barrier, according to Conklin and Robbins-McNeish (2006), was the difficult environment in which diverse faculty members are expected to work. The researchers cited issues with isolation and lack of support from the institution.

Concurring with the findings of Conklin and Robbins-McNeish (2006), the American Dental Education Association has also called for increased diversity in students, educators, and practitioners (DePaola & Slavkin, 2004). The academic environment is such that minority professionals choose other careers over academic

appointments. The research of Conklin and Robbins-McNeish confirmed that people of color lack mentors, are seen as the source for all multicultural information, and feel accountable for mentoring all minority students and solving minority conflicts. The authors suggested that institutions implement policies and procedures to tackle diversity issues which, in the near future, will become both political and economic concerns.

## Mentoring Dental Hygiene Faculty

The aging of educators is a problem within the dental profession as well as in other areas of academia (Livingston et al., 2004; Nunn et al., 2004). Consequently, there is a need to find a way to elicit prospective faculty and to retain them in faculty positions. The most important reasons for accepting dental faculty positions include department working conditions, benefits, quality of program leadership and administration, program resources and facilities, opportunities for professional development, program and faculty reputation, and salary (Shepherd et al., 2001). One of the problems facing dental hygiene faculty retention is centered around the disparity in pay between a career in clinical practice and one in academia; the mean hourly earning of clinical practice dental hygienists in May 2006 was $30.19 (ADHA, 2008b; Bureau of Labor Statistics, 2007) or approximately $56,000 per year, based on a 36 hour work week. In comparison, the guideline for a full-time dental hygiene faculty position at Georgia Perimeter College was $46,350 for a new hire with a masters degree (Georgia Perimeter College, 2007).

There are several solutions to the shortage of faculty in dentistry including recruiting the best faculty, enticing the best students into careers in academia, making an academic career financially realistic, and mentoring faculty (Haden, Beemsterboer, Weaver, & Valachovic, 2000; Shepherd et al., 2001). The mentoring process can

acknowledge the reasons that faculty made the decision to go into academia and aid faculty in realizing the worth of staying in academia, thereby helping them reach their individual goals (Shepherd et al.). Dental and dental hygiene education training programs may be able to provide opportunities for faculty development through good mentoring (Hand, 2007). The research base in the area of mentoring dental hygiene educators is in the initial stage of development, although several studies have been completed that address mentoring educators in community colleges, dental schools, and mentoring dental hygiene students. Peer mentoring was found to be an effective tool for faculty development in community colleges, especially when the mission of the college was tied to faculty development (Murray, 2002).

A report of the ADEA found that there were several areas that needed to be addressed in dealing with dental faculty shortages (Haden et al., 2000). The strategies that the report recommended included publicizing the benefits of the mentoring process and establishing mentoring programs. Mentors are vitally important in dental education, confirming the roles of the educator in dental programs, including teacher, scholar/ researcher, mentor, discipline leader, curricula developer, information manager, committee member, and clinician (Hand, 2006).

A recent study on mentoring dental hygiene students pointed to the important effect that professional organizations could have on mentoring future dental hygiene professionals with the hope of increasing their retention as members of the professional organization (Furgeson, 2007). The American Dental Hygienists' Association initiated a mentoring program between students and members in the profession realizing that the future leaders of the profession need to tap into the knowledge and expertise of practicing

dental hygienists (ADHA, 2006b; ADHA, 2007e). Mentoring in dental hygiene has traditionally taken on the task of acculturating new graduates into clinical life through a mentoring relationship with a clinical hygienist. For the most part, members of dental hygiene professional associations have taken on this responsibility.

Blanchard and Blanchard (2006) found few mentoring programs in dental hygiene schools in the United States. The study reported that of those who responded, 25.9% had mentoring programs as part of the dental hygiene curricula. However, many weaknesses were cited in these existing mentoring programs. Administrators stated that the curricula in two-year programs left little time for structured mentoring activities. Other weaknesses with mentoring programs included lack of faculty with time to devote to mentoring and a lack of faculty members who even supported being involved with mentoring.

In the future, the practice of dentistry may shift to a medical model of care with a focus on prevention (Cappelli & Mobley, 2008). Dental hygiene education in the 21st century has an opportunity to follow the changing standards and meet the needs of society. As recent evidence has suggested, because caries may be on the decline in some segments of the population due to fluoridation of public water supplies, the focus in education may shift from treatment of disease to prevention (Cappelli & Mobley, 2008; Cohen, 2002; USDHHS, 2000). The lack of trained health care professionals, including clinical professionals and educators, ultimately results in a decline in the health of the public (USDHHS, 2003).

The American Dental Hygienists' Association developed a new model for the profession, the Advanced Dental Hygiene Practitioner (ADHP) (ADHA, 2004). It is modeled after the nurse-practitioner model in nursing and is an effort to address the

severe oral health disparities across the United States (ADHA, 2007f). The ADHA is currently developing the educational curriculum, which will incorporate five domains: provision of primary oral healthcare, healthcare policy and advocacy, management of oral care delivery, translational research, and professionalism. Should the baccalaureate-level become the standard for entry into the dental hygiene profession and the ADHP become the standard for advanced dental hygiene practice, these new educational models will necessitate the need for new faculty members who understand theory development in adult education, technological advances in health and allied health education, and advances in healthcare research.

## Chapter Summary

There are several aspects of mentoring about which much is known. Research has shown the positive impact of mentoring on employees, both in the business environment and in academia. Several important concerns surrounding the mentoring relationship itself have been researched including the role of the mentor, the role of the protégé, and formal and informal mentoring systems which assist in retention and professional satisfaction. A review of the literature has also shown the importance of faculty diversity and how mentoring is a significant factor in guiding students into academia. A challenge that academia will face in the 21st century is how to better reflect the communities that are served by institutions of higher education. Mentoring can assist new faculty from diverse populations.

What is not known is the impact of mentoring on novice dental hygiene faculty members. The lack of literature on the subject of mentoring and its utility in professional development and retention regarding dental hygiene educators provides credibility for

this study. Research exploring the perceptions of novice dental hygiene educators towards mentoring within academic settings will show how their retention and professional development have been impacted by mentoring relationships. Knowledge on the topic is essential for dental hygiene program directors and administrators when addressing professional development and retention of competent, qualified faculty members.

# CHAPTER III

# RESEARCH METHODOLOGY

## Introduction

This chapter describes the methodology used to conduct the study on novice dental hygiene faculty members' perceptions of mentoring. The chapter explains the philosophical framework that guided the study, the rationale for using a qualitative study, and the guiding research tradition. The chapter also provides a detailed description of the methods used to gain a purposeful understanding concerning the impact of mentoring on novice dental hygiene faculty. A brief summary follows the detailed description of the process used in the study. The study explored how novice dental hygiene faculty members perceive the transformation process to becoming veteran members of academia. The research provides guidance to dental hygiene faculty members and academic administrators regarding the impact of mentoring on faculty retention and professional development.

## Philosophical Paradigm

According to *Webster's II New Riverside Dictionary* (1996), a philosophy explains the source and nature of human knowledge. In a research study, a philosophical framework is utilized as a starting point to help define and discuss a topic from a philosophical perspective. It presents a foundation for analyzing the topic and synthesizing the information with current beliefs, often creating potential topics for further study. A philosophical framework provides the researcher with a broad perspective or worldview to explain the study (Creswell, 1998; Guba & Lincoln, 1994). Within the philosophical framework is the concept of how knowledge is derived, the

epistemology, the study and nature of knowledge (Audi, 1999). A researcher has an obligation to question the truths of a topic when contemplating a study. To find that truth, a common concern for researchers is "how we know what we know" (Crotty, 1998, p. 8). Knowledge is based on individually-constructed reality, culture, and what is known because of the relationships with individuals and how the world is shared with others. An example of how knowledge is derived in an atmosphere based on social interactions can be experienced in the cohort model in education; members have shared experiences, are led by social interaction, and through these shared experiences, knowledge is gained (Lawrence, 2002; Maher, 2005).

*Social Constructionism as a Philosophical Framework*

The philosophical framework chosen for this study was social constructionism, a postmodern viewpoint on knowing and learning based on the social processes and relationships people have with one another (Slife & Williams, 1995). The social constructionism framework served as the basis for this study due to the researcher's belief in the important influences that social environments have on daily living. How people experience and describe daily life has a profound effect on society as a whole. This approach is especially important to social sciences and higher education, including the health sciences. The three key parties in health education are the faculty, the students, and the client or patient with whom the students work. All three parties have a significant influence on the actions and interactions of each group.

A term often confused with social constructionism is social constructivism. According to Burr (1995), the difference is whether the individual is in control of the construction process, or the construction process is the result of the social forces. The

terms social constructivism and social constructionism are sometimes used interchangeably (Audi, 1999). Schwandt (2001) stated that the terms radical constructivism and social constructionism are two wide-ranging elements of a related thought.

Social constructionism has its basis in social processes and their meanings, rather than strictly on interpretation as seen in the hermeneutic modes or on empirical facts. Knowledge is determined by the social interactions and negotiations between humans (Audi, 1999). Though the interpretation of scientific research provides its value, there can be no interpretation without a process of negotiating meaning within the scientific community (Gergen, 1996). Burr (1995) discussed historical and cultural specificity and stated that ways of understanding are relevant to historical and cultural perspectives, that knowledge is sustained by social processes, and that knowledge and social action go together.

*Assumptions of Social Constructionism*

There are key philosophical assumptions that are involved in the development of a philosophical framework (Creswell, 1998). The assumptions answer the question, "What is truth?" and include ontological, epistemological, axiological, rhetorical, and methodological assumptions. These assumptions are based on what the researcher believes, how the knowledge is arrived at, the role of values, how the design is expressed through spoken or written discourse, and the design of the research in terms of processes and outcomes. Research studies include a discussion of these key assumptions. The following are the philosophical assumptions that guided this study.

Ontology is defined as what the researcher believes is the truth concerning knowledge and the topic under study or, in other words, the study of being (Crotty, 1998). It is the perspective of the researcher that is the nature, constitution, and structure of reality. In social constructionism, the roots of reality lie in idealism and relativism (Audi, 1999; Guba & Lincoln, 1994). Nightengale and Cromby (2002) discussed social constructionism as ontology. The authors made a case for using a social constructionist framework to "elaborate the social material and biologic *processes* that shape our subjectivities rather than confine itself to an analysis of nothing more than the discursively available *outcomes* of such processes" (p. 710). In this study, the ontological assumption was based on the fact that the researcher believed that mentoring is a viable tool that, if utilized well, can significantly impact faculty retention and professional development.

As previously stated, the epistemological assumption for social constructionists is that it is in the social interaction and discourse where truth can be found and that knowledge is based on social context (Audi, 1999). Interaction between the researcher and the participants creates the truth that will be discovered in the research (Guba & Lincoln, 1994). This study looked at the social context of mentoring and the perceptions of novice dental hygiene faculty members to see if they perceived that their experiences as protégés impacted their transformation into experienced members of academia.

Axiology deals with the values of the framework, including aesthetics, ethical, and epistemic value of justification, or what is intrinsically valuable or ultimately worthwhile (Audi, 1999). According to the principles of social constructionism, values are culturally dependent. Interpretations as to what is ethical, what is justified, and what

has value are derived from cultural norms and mores. In order to justify discovery and knowledge, social interests and values, not empirical explanations, lead to beliefs (Anderson, 2001). In this study, the voices of the novice faculty members provided the truths — their perceptions lead to the meaning of the phenomenon. The study's value was generation of discussion concerning the need to retain qualified faculty members.

Relativism plays a role in social constructionism since the point of view of any culture under study is valid relative to the principles of that culture (Crotty, 1998). This study was based on the perceived value of mentoring to the novice dental hygiene faculty member in the setting of higher education rather than in clinical dental hygiene practice. The researcher believed that the experience of mentoring is itself value-laden since it is a socially-constructed phenomenon between an experienced counselor or teacher and a novice.

*Webster's II New Riverside Dictionary* (1996) defined rhetoric as the art of effective and persuasive use of language. In social constructionism, the nature of reality lies in social discourse; the ways in which experiences and perceptions are brought into existence are due to the shared language of the culture (Burr, 1995). Social constructionists see language and its use as a shared resource for creating different explanations of the world (Burr). Discourse, either spoken or written, strongly directs consciousness by giving it structure and a framework for understanding based on cultural norms and further allows for the interpretation of the world of the individual and the individual's role in society (Burr). The holistic report of this study is rich with beliefs, attitudes, and opinions, which were documented in the narrative using the voices of the novices.

The methodological assumptions are those that direct the actual research including the design of the study (Patton, 2002). The methodologies commonly employed in research using a social constructionism framework constitute a variety of approaches including analyses of conversations, discourse, rhetoric, and critical inquiry (Burr, 1995). The methodological assumption of the framework guided the researcher through the study design, data collection and analysis, and reporting. The methods employed in this study were based on past qualitative research using multiple sources (Berg, 2007; Creswell, 1998; Miles & Huberman, 1994; Patton, 2002). In the analysis of the data, inductive reasoning was used, going from a specific theme to generalizations brought forth by the responses, and conclusions about the impact of the phenomena of mentoring were generated. The design of the study emerged as the study evolved; implications for practice also surfaced. In this study, knowledge about the impact of mentoring was arrived at through an in-depth engagement of the researcher and the participants.

## Rationale for a Qualitative Study

The study on novice dental hygiene educators' perceptions of mentoring was a qualitative study, rather than a quantitative study, due to the nature of the purpose of the study which was to gain insight and a holistic perspective on the topic (Patton, 2002). The research focused on the naturally occurring situations as presented by the novice faculty members who were selected for inclusion based on their experiences with mentoring as well as their power to transform their thoughts and insights in order to develop from novice to experienced faculty members.

There are considerable differences between a qualitative study and a quantitative study. The purpose of a qualitative study is to bring forth emergent themes and detailed

information from a limited number of participants in order to increase the understanding and the meanings of things, while a quantitative study facilitates generalization of findings of a larger number of contributors (Berg, 2007; Creswell, 1998; Patton, 2002). The use of a qualitative approach makes possible research at a depth and level of detail not allowed in a quantitative approach (Patton). Qualitative research methods measure the reactions of a limited number of people, allowing for an increase in the depth of understanding of the lived-experiences of those under study, and shed new light on old problems (Rubin & Rubin, 2005).

Behavior is studied naturalistically in a qualitative study rather than under tightly controlled situations, as in a quantitative study (Berg, 2007; Creswell, 1998; Patton, 2002). The setting of a mentoring experience is a social and complex system between the mentor, the protégé or apprentice, and their surroundings, and it is this social setting that lends itself to qualitative research. Realities are socially constructed in a qualitative study, and the researcher is the principle instrument of the study. In a quantitative study, the instruments have been pre-tested and standardized. The method used in a qualitative study is inductive with attention to processes and interrelationships, and assumes that change may occur during the study to elicit understandings or meanings, while a quantitative study consists of testing hypotheses through empirical data (Patton; Rubin & Rubin, 2005).

Qualitative analyses are used to collect linguistic data (Gergen, 1996), as seen in this study on novice dental hygiene faculty members' perceptions. Giving voice to participants is a key to understanding in qualitative research (Belenky et al., 1986; Belenky & Stanton, 2000). The report of a qualitative study is a narrative filled with the

rich, thick descriptions of lived experiences, unlike the report of a quantitative study, which is a statistical report containing mostly numerical data (Berg, 2007; Creswell, 1998; Patton, 2002). This qualitative study allowed the participants to give voice to their personal views on the impact of mentoring. It is the belief of the researcher that the findings showed that the phenomenon of mentoring can change novices into seasoned faculty members by transforming their daily professional lives in academia into productive experiences.

## Rationale for the Phenomenological Study

The qualitative researcher has a variety of traditions available to use when designing a study. These traditions include investigation of a portrait of an individual or a group using a case study, a biography or an ethnography; examination of a theory in a grounded theory study; or exploration of a phenomenon or concept (Creswell, 1998). The researcher of a phenomenological study focuses on understanding the experiences about the phenomenon using long open-ended interviews with up to 10 people who have experienced the phenomenon, and analyze their statements for meanings, themes and descriptions of the experience (Creswell).

The definition of phenomenon, according to Strauss and Corbin (1998), is an occurrence that respondents believe is meaningful. According to Mezirow (2000), learning takes place through examination of one's frame of reference about the issue at hand, by learning new frames of reference, by transforming points of view, or by transforming one's *habits of mind* or assumptions about the experience. These core concepts about transformation theory and adult learning help explain what goes on when adults become accomplished.

The key objective of phenomenological knowledge is "the understanding of meaningful concrete relations implicit in the original description of experience *in the context of a particular situation*" (Moustakas, 1994, p. 14). Moustakas further stated that the common qualities of several traditions of qualitative research, including phenomenology, are the following: the recognition of qualitative research's value, a focus on a holistic experience, a search for meanings and essences, reports of first-person explanations, recognition that the experience is the data which helps in understanding, creation of research questions that reflect the investigator's connection, and viewing as essential the experience and behavior of the participants. A study based on phenomenology is developed on an all-encompassing account of what an experience means for the persons who have the experiences (Moustakas). It is essential to note that the importance of the event is defined by the respondents, not by the researcher, and in order to truly understand the participants' perceptions, the insiders' views are the keys to understanding the phenomenon (Guba & Lincoln, 1994).

Mentoring in academia is a perfect milieu for a phenomenological study due to the socialization that takes place between the mentor and the novice faculty member during the process of teaching and learning. The social reality of the every-day experience lends itself to learning what the experience means to the participants (Denzin & Lincoln, 2003). The purpose of this phenomenological study was to elicit the perceptions of novice dental hygiene faculty members. It was devoted to gaining an understanding of the meaning and essence of the phenomenon of mentoring and its value by focusing on the real-life experiences using the voices of novice faculty members, which provided a rich log of data that was analyzed for common themes on how the

phenomenon of mentoring can assist faculty members in transforming from novices to ones with experience who will stay committed to their positions in academia.

The researcher looked at the academic settings of the faculty members and sought to understand the wholeness of the phenomenon through the interpretations of the participants. The processes used in a phenomenological tradition include epoch, phenomenological reduction, imaginative variation, and synthesis of meanings and essences (Moustakas, 1994) and is further explained later in the chapter. In order to conduct the investigation of the phenomenology, the researcher began by asking the overarching questions and sub-questions concerning the phenomenon.

## Research Questions

The development of the research questions begins with the researcher's ideas about a problem or phenomenon (Berg, 2007). The research for this study was guided by the aim of the study, namely, to ascertain how mentoring can help alleviate a proposed shortage of dental hygiene educators through retention and professional development. The overarching research question was:

> What are the perceptions of novice dental hygiene faculty toward a mentoring process as a factor in developing experience within academic settings?

The qualitative study design included three questions to help reveal the descriptions of the novice faculty members' lived experiences while being mentored. The questions that guided the research were:

1. How can mentoring affect a novice faculty member's adjustment to academic work?

2. What changes are needed to adjust from being a novice to an experienced faculty member?
3. What are novice dental hygiene faculty members' perceptions of the role of mentoring on faculty retention and development?

The findings of this study will guide professional development and faculty retention initiatives in order to retain confident, experienced dental hygiene faculty.

## Methods

Often the terms methods and methodology are used interchangeably; however, there are differences in their meanings. A methodology deals with the underlying theory upon which the research study is based. It includes the underlying assumptions and serves as a mid-point between the methods employed to answer the research questions and the explanations about the issues under study (Schwandt, 2001). The methods of a research study are those procedures that are utilized to gather data for the study and include instruments for interviewing, observation, and analysis (Schwandt). This section of the chapter offers specific information regarding the research design. Included in this section are the role of the researcher; the sample of participants; the data collection, processing, and analysis procedures; standards of quality and verification; and ethical considerations.

### *Role of the Researcher*

The role of the researcher is as the instrument of the study and as a participant observer with a focus on interaction with the participants (Patton, 2002). In this study, the researcher was involved in the design, data collection, data analysis, and interpretation with the results presented in a narrative format. In order for the study to be significant, credibility and reliability were addressed. According to Patton (2002), the strength of any

study is directly related to the training, preparation, and processes that the researcher employs, and the researcher's perspective is part of the framework for the conclusions Also, the criteria for judging quality includes taking into account biases on the part of the researcher and understanding the multiple perspectives of the participants (Patton, 2002).

The researcher became interested in the topic of mentoring when asked to be a mentor to students in a capstone course for dental hygiene baccalaureate students. The researcher became even more immersed in the topic when a colleague, a novice dental hygiene faculty member, left her position after only two years. After discussing the issue with her, the researcher realized that there was a lack of interaction between the novice and other seasoned faculty members about basic faculty issues such as new teaching methodologies and student learning strategies. The researcher vowed to learn how to improve faculty retention and make mentoring a good experience both for the mentor and for any future protégé who desires to become an experienced faculty member. The institution, the novice faculty member, or a student about to graduate and take a faculty position can benefit from a mentoring experience.

Subjectivity was attended to by addressing the biases of the researcher. These biases emanated from a variety of experiences as a faculty member, including as a one-time novice to academia after more than 20 years in clinical practice. The potential bias of the researcher was examined through reflective processes. Credibility and reliability were addressed through the rigorous and systematic methods used for data collection (Creswell, 1998; Patton, 2002). According to Creswell, the hallmark of a qualitative study lies in the multifaceted participation in matters of concern. The researcher's bias was the belief that mentoring can lead to improved faculty retention and professional

development for novice dental hygiene faculty members. The biases of the researcher were further addressed by cross-checking responses of the participants and systematically coding and classifying the responses. Empathic neutrality was employed due to the fact that, in qualitative studies, the researcher has an obligation not to be seen as too objective or too subjective for fear of distancing the participants (Patton). Using this approach, the researcher had the opportunity to become immersed only in the voices of the novice faculty members and their perceptions.

Research studies using social constructionism reflect certain issues such as objectivity and value-freedom, the researcher-researched phenomenon, and reflexivity (Burr, 1995). Burr stated that reflexivity can be described in several ways: first, as the way a theory provides a new structure for the role of the respondent; second, by giving an account of an event which makes one a part of the event; third, through the critical analysis of the writer's own work; and finally, acknowledgement of personal and political values. Gergen (1996) looked at reflexive deliberation with the assumed world and stated that when conversing from a cultural perspective, there is an opportunity to be open to many voices. For this study, the researcher's preconceived ideas regarding the impact of the mentoring phenomenon were also addressed. It was important in this phenomenological study that the researcher bracketed or suspended perceptions about the phenomenon while identifying the experiences of the participants (Schwandt, 2001).

*Sample Selection*

The dental hygiene programs in Florida consist of associate degree programs and baccalaureate degree-completion programs. For this study, the maximum sample of 10 participants (minimum of six) included novice dental hygiene faculty from associate

degree programs who had been in academia five years or less and who had been involved in the phenomenon of mentoring. Only full-time faculty members were part of the sampling process. The sample size of participants for this qualitative study met the criteria for the investigation as the number of participants followed the guidelines set forth by researchers Creswell (1998) and Patton (2002) on the topic of qualitative studies, although Patton stated that there are no prescribed guidelines for sample size.

The key to this criterion sample is that each respondent met the criteria in order for the researcher to understand the meaning to those who have lived the experience (Creswell, 2003; Patton, 2002). The sampling strategy supported the grounds of the study which was to determine the beliefs, attitudes, and opinions of the participants concerning the phenomenon of mentoring and how it can impact retention and professional development. Although there are several ways to gain a sample of participants (Patton; Schwandt, 2001), the purposive strategy for sampling allows the researcher to glean information from those who have experienced the phenomenon (Schwandt). It was assumed that the researcher would learn the most from participants faced with professional development and retention issues and who were or have been involved in the mentoring process as a protégé. For the purpose of this study, gender and ethnic background were not germane to the research; instead, the demographics of the study included employment status and years of full-time teaching experience at a dental hygiene associate-degree granting institution.

## Data Collection and Processing Procedures

In a first-rate qualitative study, rigorous data collection procedures are employed (Creswell, 1998). Some of the most common ways to collect data in a qualitative study

are from direct observations; through face-to-face interviews; or from focus groups, surveys, case studies, historical analysis, or document analysis (Berg, 2007; Creswell; Patton, 2002). For several reasons, this researcher chose to use a technology-based platform designed to survey perceptions of participants. An online questionnaire administered through SurveyMonkey™ allowed the researcher to gain access to participants from a variety of institutions without the logistical problems often found in scheduling and travel for face-to-face interviews. Since the researcher was acquainted with many of the dental hygiene educators in the state, an online format allowed for detachment between the researcher and the respondents. In addition, the online format and participants from multiple dental hygiene programs helped alleviate a group-think response, which can happen when participants discuss their opinions together.

*Recruitment and Consent*

Once Barry University Institutional Review Board (IRB) consent was secured, the study was introduced to the potential participants through the use of an online flyer for recruitment (Appendix A), which was sent out via email to dental hygiene educators through the publicly-accessed databases of the Florida Allied Dental Educators Association. In addition, a letter of introduction (Appendix B) and the flyer were sent via email to all dental hygiene program directors requesting them to post the information about the study to all full-time faculty members who may not be members of the professional association. It was anticipated that the dental hygiene educators would self-identify, and dental hygiene program directors would serve as gatekeepers and forward the flyer explaining the study and the research criteria. In this way, the sample was drawn from participants from a variety of locations rather than from one educational institution.

By identifying potential participants through professional dental hygiene associations and through dental hygiene program directors, the researcher employed a snowball sampling method to recruit participants through those individuals who are familiar with other novice faculty members who have experienced the phenomenon under study (Berg, 2004; Creswell, 1998; Patton, 2002). When the number of participants had not met the expected goal of 10, the researcher sent follow-up email messages (Appendix C) to possible participants who did not respond by the required deadline. Any individuals who inquired after the maximum number of participants were selected received an automatic reply (Appendix D) thanking them for their offer to participate and alerting them that a sufficient sample size had been reached.

The Informed Consent Form (Appendix E) was prepared using the format provided by the Barry University Institutional Review Board. The form identified the title and purpose of the study; provided the name of the doctoral student, academic program, university, and the dissertation committee chair; explained the procedures and estimated time associated with participating in the study; stated any known risks or adverse effects; described measures to ensure privacy and confidentiality; provided a deadline for submission of the survey; and indicated the researcher's contact information for further communication. The Informed Consent Form (Appendix E) was embedded in the first page of the SurveyMonkey™ questionnaire for potential respondents. Prospective participants were given the choice of voluntarily agreeing to participate in the study, to refuse to participate, to refuse to answer any question, or to pull out of the study at any time.

Once prospective participants agreed to be a part of the study, they were directed to the remainder of the questionnaire and asked to enter demographic data, which included the criteria for inclusion in the study. Participants whose demographic information did not meet the inclusion criteria, as stated in the Inclusion Criteria of the survey, were thanked for their time and directed out of the study (Appendix F). Participants were informed that their electronic survey responses would be recorded confidentially. Each participant also had the option of providing home contact information in case the researcher had additional questions concerning clarification of participants' responses (Rubin & Rubin, 2005). This allowed the respondents to receive a copy of the findings and results of the study, should they desire the information.

*Instrument*

The online, open-ended questionnaire (Appendix G) was designed to determine participants' beliefs. This study was conducted on the Internet using a secure researcher-developed instrument that was specifically designed to capture responses to the research questions about the utility of mentoring as a feasible way to improve faculty retention and development. The questionnaire was developed from a review of the literature and previously designed tools on mentoring, including work by Cambria (2006), Freking (2006), Rose (2003), and Zachary (2000). The questions were organized into three categories, which aligned with the overarching research topics: mentoring, faculty retention, and faculty development.

For this study, the researcher determined that the most efficient way to gather the data would be through an online instrument developed by the researcher and targeted to dental hygiene educators throughout the state. While this format for qualitative studies is

relatively new, it is one of the most innovative changes in social research (Berg, 2007). Instruments in qualitative studies may include several types of questions based on the nature of the information being sought (Patton, 2002). The questionnaire for this study included questions that elicited experiences and behaviors, opinions and values, and feelings concerning mentoring, faculty retention, professional development, and transformation into experienced faculty members.

A Computer Assisted Self-Administered Interviewing (CASI) style was used, which allowed the researcher to have the data readily available and afforded the participants privacy while responding (Berg, 2007). In order to protect the identities of the participants, the SurveyMonkey™ questionnaire asked standardized open-ended questions without identifying the participants. Open-ended questions were used in order to permit the researcher to understand the protégé respondents' beliefs about the phenomena (Patton, 2002). It was anticipated that the participants would spend a maximum of one hour answering the questionnaire and that follow-up with the respondent by the researcher for clarification was anticipated to take approximately 30 additional minutes, for a total of 1½ hours (or 90 minutes) of participant time.

*Timeline*

Data collection took two weeks after the flyer (Appendix A) and letter of introduction for recruitment (Appendix B) were sent out and the participants' involvement was secured. Prospective respondents were given one week to respond to the request for participation in order to take part in the study, and participants were given one week to complete the questionnaire. The respondents were allowed time to reflect on the answer to each question at a convenient time and place without intervention from others

and were told about the one-week limit in the introductory pages of the questionnaire. This time allowed participants to complete the questionnaire and add to or amend any response. By being allowed time to critically reflect on their answers, it was assumed that the respondents would answer truthfully and with frankness. Once the respondents completed the questionnaire, the respondents were sent an automatic thank you (Appendix H) for participating in the research study and contributing to the body of knowledge regarding dental hygiene faculty retention and professional development. The information was then collected and analyzed.

*Confidentiality*

To insure confidentiality, the researcher asked to communicate individually with the participants only through home contacts. Accessing the participants through their home contact information, rather than through their work sites, would enable the participants to make more candid appraisal of their mentoring experiences without fear that the email responses would be tracked by the institutions, as required by law; however, some participants preferred to be contacted at work. For the purpose of this study, demographics, such as ethnic background and gender, were not considered. SurveyMonkey™ protocol offered Secured Sockets Layer (SSL) encryption for the survey link and survey pages during transmission.

*Record Keeping*

Hard copies of all data are kept in a locked file at the researcher's home office. The identifiers of the participants are kept separate from the research data. All data and identifiers will be destroyed five years from the date of completion of the doctoral

program, in accordance with the requirements of the Barry University Institutional Review Board.

## Data Analysis Procedures

Upon completion of the data collection process, the researcher analyzed the data. During qualitative research, the focus of the analysis is to construct meaning out of the participants' responses (Creswell, 1998; Patton, 2002). The perceptions of the novice faculty members were analyzed to reveal the true meaning and essence of the lived experiences (Moustakas, 1994; Patton; Rubin & Rubin, 2005). A preliminary coding list was developed as the data were analyzed using the review of the literature with an appreciation of the overarching research question.

The data of this study were analyzed using Moustakas' modification of the Stevick-Colaizzi-Keen method of data analysis (Moustakas, 1994) (Appendix I). This approach represented a systematic way to analyze the phenomenological data provided by the respondents (Creswell, 1998; Moustakas). According to the teachings of Moustakas, the first step includes the process of epoch, which enables the researcher to clear the mind of preformed views of the phenomenon. This process allows preconceived notions to be set aside and only the perceptions of the participants noted. By doing so, the researcher helped alleviate the tendency to manipulate data to fit the researcher's truth. This researcher engaged in a process of self-reflection as an educator who came to the profession after several years as a practicing dental hygiene clinician, and who, as an educator, has been a mentor and observed the mentoring processes of others. These preconceptions were acknowledged and set aside, or bracketed, from the beliefs of the participants.

The next process was phenomenological reduction to construct a detailed description of the experience (Moustakas, 1994) to find the layers of deeper meaning. The researcher examined the responses as described by the participants, looked for common themes, and the relationships between variables were noted. The themes that emerged assisted the researcher in determining which issues should be examined in detail.

The remaining processes of analysis, as described by Moustakas (1994), included imaginative variation and synthesis of meanings and essences. The researcher considered the responses of each participant with respect to the significance to the phenomenon of mentoring, documented all relevant statements, determined the themes, classified the meanings and essences of the experiences of each participant, and ultimately integrated the information into a description of the essence of the mentoring experiences of the group as a whole. Descriptions of both the direct and the side-effects of mentoring were generated from the responses. The phenomenon of mentoring was investigated to see how it has impacted the respondents and transformed their personal views of their current roles as dental hygiene educators.

A meta-matrix was created using the information garnered from each individual case. The data then were extended and refined into new clusters of information to garner themes and responses to determine the effect of the phenomenon (Miles & Huberman, 1994). The researcher followed this process to generate meaning, test and confirm findings, and to look for core meanings in the participants' responses (Patton, 2002). Evidence was presented in the form of direct quotes that validated the themes and sub-themes. The outcomes of the phenomenological study were suggestive rather than

conclusive (Crotty, 1998), and the data were presented with an appreciation of two main foci: first, the impacts of the role of mentoring in the retention and professional development of dental hygiene faculty; and second, the theoretical framework of transformational learning as posited by Mezirow (1990, 2000). In the analysis, the researcher looked for the impact that participating in the mentoring process had on the transformations of novice dental hygiene faculty members. The goal was to conduct a study that would yield data meaningful to everyone involved with the process (Patton, 2002). It was assumed by the researcher that protégés would believe that their experiences as protégés would have effects on faculty retention and/or professional development (See Figure 1).

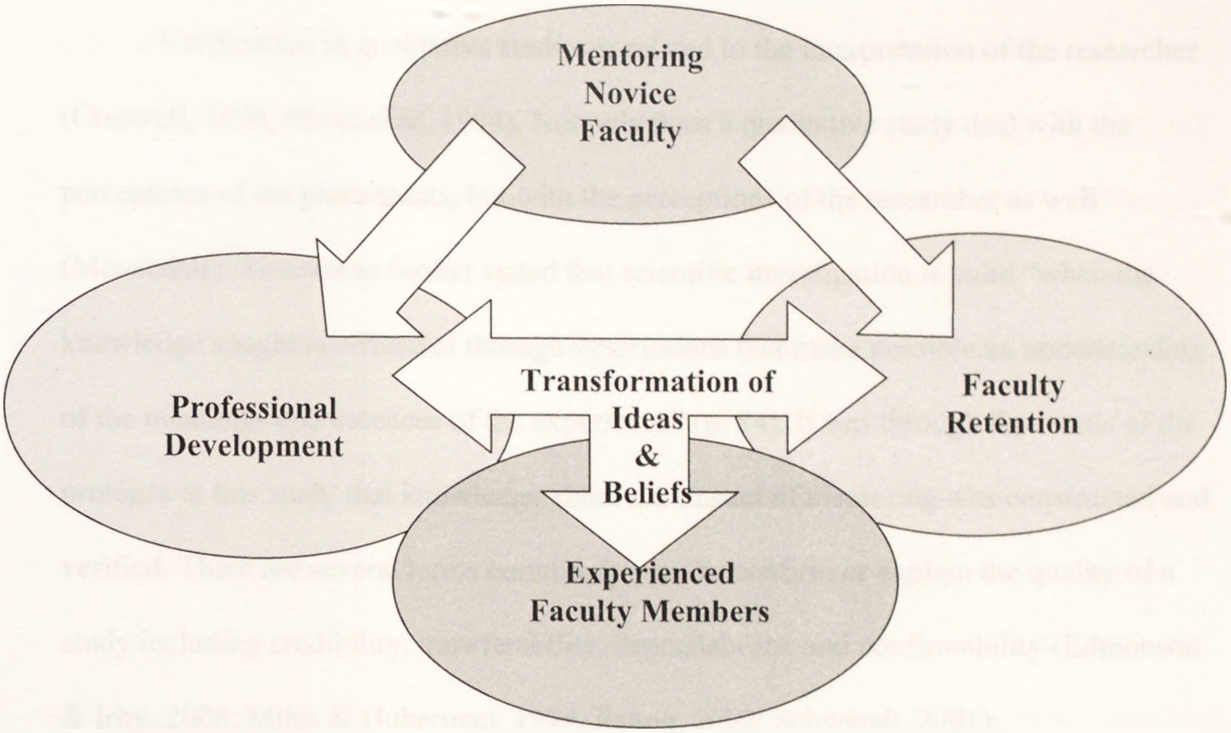


*Figure 1.* Anticipated effect of mentoring on professional development, faculty retention, and transformation into experienced faculty

## Standards of Quality and Verification

Quality and verification are essential to the credibility of any study. According to Berg (2007), quality is fundamental to the nature of all affairs. Characteristics of a good qualitative study include rigorous methodological procedures, a qualitative framework upon which a study is designed, inquiry through tradition, a single focus, an analysis that includes multiple themes, and production of a document so that the reader feels a part of and is engaged with the study (Creswell, 1998). The term rigor is often used to describe the strategies for enhancing the quality of a study (Patton, 2002). Processes used in this study to confirm quality included dense descriptions of the participants' responses, cross-

checking the data and interpretation, coding the responses, and then recoding the responses after passage of time to see if the original codes were confirmed.

Verification in qualitative studies is related to the interpretation of the researcher (Creswell, 1998; Moustakas, 1994). Not only does a qualitative study deal with the perceptions of the participants, but with the perceptions of the researcher as well (Moustakas). Moustakas further stated that scientific investigation is valid "when the knowledge sought is arrived at through descriptions that make possible an understanding of the meanings and essences of the experience" (p. 84). It was through the words of the protégés in this study that knowledge about the impact of mentoring was constructed and verified. There are several terms commonly used to confirm or explain the quality of a study including credibility, transferability, dependability, and confirmability (Edmonson & Irby, 2008; Miles & Huberman, 1994; Patton, 2002; Schwandt, 2001).

*Credibility*

Rigorous methodology includes following the teachings of the experts. Credibility is linked to internal validity and authenticity (Miles & Huberman, 1994) and assumes the fundamentals of rigorous methodology, the credibility of the researcher, and a belief in the value of qualitative inquiry (Patton, 2002). Making a study reliable and valid brings credibility to the study (Edmonson & Irby, 2008). Edmonson and Irby's research suggested a model for credibility/trustworthiness that was developed from several sources. Elements of the model included the value of truth, applicability, consistency, and neutrality. Since it is this researcher's belief that mentoring can have a positive impact on faculty retention and professional development, each time a respondent voiced an opinion, the researcher was guided by the teachings of Moustakas (1994) using the

method of epoch to set aside prejudgments and bracket out preconceptions. Without addressing these preconceived notions, neutrality would have been compromised, and the outcome of the study would have been jeopardized (Patton; Schwandt, 2001). In this research project, the researcher used reflective-meditation, an element of epoch, in which the researcher not only acknowledged and set aside the biases, but also was receptive to the fact that they were present.

The researcher also used the following methods to promote credibility: sampling of only those who have experienced the phenomenon and who met the other criteria of being novice faculty; clarification and follow-up, if needed, for validation; and use of an audit trail (Creswell, 1998). The sampling method confirmed that only those full-time dental hygiene faculty members who had been in academia for five years or less and who had been involved with mentoring were used as participants. Clarification and follow-up was accomplished by allowing the participants to have time to reflect on their answers and amend, if necessary, prior to submitting the online responses. If the researcher had additional questions about the responses, the participant was contacted, if available. An audit trail began with the research proposal and was carried out through the direct quotes of the participants under study.

The credibility of the researcher was demonstrated by the fact that the researcher has had experience working with dental hygiene faculty members as a colleague, as a provider of continuing education courses, and as an officer in professional associations. As a past leader of the Florida Allied Dental Educators Association, the researcher became aware of the problems that face institutions in hiring competent faculty who will stay in their positions. Additionally, as a protégé and as a mentor, the researcher has had

experience with the phenomenon of mentoring and transformation from a clinician to a novice faculty member to an experienced faculty member.

A belief in the value of a qualitative study is imperative for any qualitative researcher. This study on mentoring provided the thick, rich descriptions that led the researcher to construct credible meanings of the experience, which was accomplished only through narrative reports containing beliefs, values, and opinions of the protégés. It was this researcher's belief that an empirical study would not convey the true meanings and essences nor the significance and usefulness of the participants' perceptions of their experiences.

*Transferability*

In quantitative studies, a hallmark of quality is the generalizability of the findings or the probability that findings based on a sample are characteristic of the entire population; in a qualitative study, the sample is made up of individuals or groups who have experiences which help confirm or disprove the researcher's beliefs about the topic (Schwandt, 2001). It has been suggested that in qualitative research, the use of the terms fittingness or transferability are more appropriate than the term generalizability (Edmonson & Irby, 1994; Miles & Huberman, 1994). The findings of a qualitative study can be transferred to, or would be appropriate for, another case or in another context, or across multiple contexts and situations. In this study, the researcher posited that the findings would demonstrate that mentoring could have positive impacts on novice dental hygiene and allied health faculty members and assist in their transformation into veteran academicians.

*Dependability*

Dependability is achieved through vigilant documentation of methods for producing and making sense of data (Schwandt, 2001). Dependability, reliability, and auditability are linked owing to the fact that processes of any research study are both consistent and realistically unwavering in spite of differences over time, researchers, or the methods employed (Miles & Hubernam, 1994). For this study, the researcher used only those proven methods based on qualitative research described earlier to collect and analyze the data and synthesize the findings to make meanings of the phenomena. A review of the literature on mentoring and faculty retention and professional development guided the researcher.

*Confirmability*

Confirmability involves substantiating the meanings of patterns found in the responses of the participants, examining the emergent findings with new data as it comes in, and verifying the information with stakeholders, or with the literature (Patton, 2002). Miles and Huberman (1994) stated that confirmability and objectivity are linked, and the major issue is that of neutrality, especially freedom from researcher bias. Schwandt (2001) used Lincoln and Guba's research on the topic to define confirmability as having criteria for trustworthiness, just as the research of Edmonson and Irby (2008) suggested. During the process of analysis, the researcher confirmed the emergent findings from the study on protégés' perceptions of the impact of mentoring using the criteria described above.

Miles and Huberman (1994) stated that legitimacy is at issue when discussing standards of quality in qualitative studies. As described by several researchers (Creswell,

1998; Moustakas, 1994; Patton, 2002), the methodological approaches previously described constitute a rigorous and systematic way to carry out a qualitative study. By using legitimate methods in qualitative research, the value of the study to the participants, to the researcher, and to stakeholders was substantiated.

## Ethical Considerations

All researchers have an obligation to stakeholders and to the community at large to conduct studies under strict ethical guidelines (Berg, 2007). Indiscretion in research methodology in the past has brought about the need to now employ appropriate research standards based on ethical values (Berg; Patton, 2002). This project followed the suggestions set forth by several qualitative researchers (Berg; Creswell, 1998; Miles & Huberman, 1994; Moustakas, 1994; Patton; Rubin & Rubin, 2005; Schwandt, 2001; Strauss & Corbin, 1998). Ethical considerations utilized in this research study included attention to professional codes of ethics; awareness of the purpose and worthiness of a study; stringent attention to the study's methodology including competence of the researcher, participant participation and consent, and confidentiality; skillful analysis; and, honesty in the use of the results.

### *Codes of Ethics*

According to Schwandt (2001), there is a need for moral and ethical awareness when carrying out any research, and professional codes of ethics can guide researchers in their endeavors and help drive moral decision making, whether it be in practice or in research (ADHA, 2006a; Berg, 2007; Miles & Huberman, 1994; Rubin & Rubin, 2005). Several guiding standards and obligations are common to the codes of ethics of the American Dental Hygienists' Association and the American Educational Research

Association (AERA) (ADHA, 2006a; AERA, 2000). These guidelines and standards include informed consent, confidentiality, and use of accepted scientific standards, which have been discussed under the quality and verification section of this study.

*Purpose and Worthiness*

An especially important concept of the ADHA Code of Ethics is the assurance that the study will be valid and helpful to patients and to society and that the researchers will be responsible to the discipline (ADHA, 2006a). Miles and Huberman (1994) also posited that a study needs to be deserving of the time and effort involved and contribute to an understanding of the phenomenon. After reviewing the literature, the researcher found that within the next few years, dental hygiene programs may have a significant number of openings for new faculty members. In order to meet the projected shortage of faculty, approaches to advance the retention of novice faculty and professional development are essential. The researcher believes that mentoring is a way for institutions to assist novice faculty members to become acculturated to their academic positions. The respondents were given full disclosure on the purpose of the study in the Informed Consent Form (Appendix E), according to the research by Creswell (1998), Miles and Huberman (1994), and Patton (2002).

*Ethical Methods*

For this study, the competency of the researcher was identified in the section on quality and verification. The researcher followed Creswell's (1998) suggestion that the experiences of the researcher not be shared with the participants. In this way, bracketing was maximized in order to construct the participants' meanings of the phenomenon, rather than that of the researcher. The researcher completed the required National

Institutes of Health Office of Extramural Research "Protecting Human Research Participants" online tutorial, as required by the Barry University doctoral program requirements. The certification that the tutorial was completed indicated that the ethical and legal considerations and requirements were reviewed by the researcher. This certification, as well as adherence to the Barry University Institutional Review Board guidelines, shows that participants were protected from harm or negative consequences as a result of the study.

The guidance of an Institutional Review Board (IRB) is vital to the ethical value of many research studies that take place under the auspices of educational institutions (Berg, 2007; Rubin & Rubin, 2005). The Barry University IRB assured that only ethical and sound methods were used in this study to protect the participants, and that this researcher proposed a methodologically reliable and ethically sound study based on their guidelines. Following the guidelines of qualitative researchers including Berg, Rubin, and Rubin, and the principles of the Barry IRB, the risks and benefits of participation were known to the participants through the introductory flyer (Appendix A) asking for voluntary participation, as well as in the Informed Consent Form (Appendix E) that each participant completed prior to acceptance into the study. The Informed Consent Form also followed the ethical convictions of Patton (2002) and Moustakas (1994), who stated the importance of establishing clear agreements with participants, including the time commitment that will be expected, the ability to refuse to answer any question, or to withdraw at any time without consequences. As the study did not involve any individually identifiable health information about the respondents, the researcher did not need to follow the Health Information Portability and Accountability Act (HIPAA).

The researcher acknowledged two guiding issues in using the purposive sampling for this study (Schwandt, 2001). First, the criteria for inclusion in the study required participants to be full-time faculty members in dental hygiene programs for five years or less and having experienced a mentoring relationship. Second, the research questions were formulated to ensure that participants were not led to any assumptions or beliefs. In this study, since the questions asked in the questionnaire did not lead the participants to any assumptions about the process of mentoring, novice faculty members did not necessarily believe retention and faulty development could be improved through mentoring processes at their institutions.

Confidentiality was guarded using SurveyMonkey™, an online format. To protect the identities of participants, all participants were given monikers (PRO-1, PRO-2,...PRO-10) which were assigned in the order in which they responded. The researcher used these monikers in the report of the findings, as suggested in the literature (Creswell, 1998). Only those participants who wished to divulge personal contact information were contacted for member checking.

*Ethical Analysis*

Miles and Huberman (1994) stated several important ethical concerns that needed to be acknowledged during the analysis stage of the study, including the risks and benefits to all involved. In this study, the benefits to the researcher were an increased understanding about the phenomenon and the contribution that the research will make to the dental hygiene profession. The costs to the researcher were in time and financial outlay to accomplish the research. Both the benefits and costs were fully understood by the researcher.

The benefits to the respondents included the power to make their feelings known on how to improve their circumstances as faculty members. The main sacrifice to the respondents was the time required to answer the research questions in a comprehensive and honest manner. All risks, including the time required to answer the questionnaire, were described in the Informed Consent Form (Appendix E).

*Ethical Study Results*

The researcher is committed to using the findings only to draw attention to the use of mentoring as a way to improve faculty retention, professional development, and the transformation from novice to an experienced member of academia. Since the data and findings were not be affiliated with any specific institution, nor is the researcher being paid for doing the research, ownership of the data and conclusions were not an overarching concern for the participants or the researcher.

Recent research on what constitutes good educational research was undertaken by University of Kentucky researchers (Bradley, Royal, Cunningham, Weber, & Eli, 2008). The investigators found that, according to faculty and graduate students at a southern university, high quality research includes ethical standards, following professional codes of ethics, informed consent, protection of the participants, and established institutional policies. The study on novice faculty members' perceptions of mentoring acknowledged all of these issues. Another finding of the study on ethical educational research included the importance of recognizing researchers who contribute to studies. In the case of this study on protégé perceptions, Dr. Sharan Merriam, a Professor at the University of Georgia, a well-known researcher on faculty development and mentoring, and a member of the International Adult and Continuing Education Hall of Fame, was willing to share

with this researcher a seminal article that she had written on mentoring (Merriam, 1983). In addition, Dr. Gail Rose, Assistant Professor of Education at the University of Vermont, shared a mentor scale, which she developed for her dissertation on the subject (Rose, 2003). The contributions of these well-known researchers to this study further exemplify the value of a mentoring relationship, even if one of a short duration.

## Chapter Summary

This qualitative research study was undertaken to determine the impact of mentoring on novice dental hygiene faculty. The philosophical paradigm that guided this study was social constructionism, a postmodern stance based on social processes and relationships people have with one another. Due to the nature of the overarching research question about how mentoring transforms new dental hygiene educators from novices to experienced members of academia, and the complex socialization that takes place during the mentoring experience, a qualitative design was used. The qualitative tradition used was that of a phenomenological study, which allowed the researcher to elicit meaningful dialogue to explain what the experience, or phenomenon, of mentoring meant to the protégés.

A maximum of ten participants (minimum of six) was purposively chosen through a snowball sampling procedure from the dental hygiene educators in Florida. Participants had been full-time dental hygiene faculty members for five years or less and, in this study, were referred to as novice faculty members. Additionally, participants had experienced mentoring in academia. These sampling criteria ensured that the researcher collected information from those who had experienced the phenomenon. Recruitment was conducted via the information from the Florida Allied Dental Educators' Association

and through a flyer and letter of introduction to the study distributed to state dental hygiene program directors. Participants were directed to SurveyMonkey™ , an online site where the participants found the Informed Consent Form.

After agreeing to participate, the participants were directed to the online questionnaire. Participants were able to decide whether or not to answer any question, or to leave the study at any time without consequence. Data were collected via an online open-ended questionnaire on SurveyMonkey™ following strict qualitative research guidelines. Data analysis was accomplished using Moustakas's modification of the Stevik-Colaizzi-Keen method. The researcher's preconceived notions about the phenomenon of mentoring were set aside, and the researcher engaged in self-reflection about the process of mentoring. The researcher examined the participants' responses for common themes and meanings, and synthesized the meanings and essences to determine the lived experiences of the participants and how the lived experiences impact their work in academia.

Standards of quality and verification were met through attention to rigor. Quality was confirmed through the study's employment of credibility, transferability, dependability, and confirmability. In addition, ethical standards developed by the American Dental Hygienists' Association and the American Educational Research Association were followed by the researcher with concentration on the purpose and worthiness of the study and on the methods employed. The findings were used to determine the impact of mentoring on faculty retention, professional development, and the transformation to an experienced member of academia.

# CHAPTER IV

# RESULTS OF THE STUDY

## Introduction

The goal of this qualitative study was to explore the perceptions, beliefs, and opinions of full-time dental hygiene faculty toward mentoring in academic settings and the impact of mentoring on professional development and retention. The literature provided a wealth of information on studies involving mentoring in business and academic circles (Dolaz, 2000; Hopkins & Grigoriu, 2005; Knowles, 1989; Kram, 1988; Merriam, 1983; Sorcinelli, Austin, Eddy, & Beach, 2006). However, there were few studies specifically on mentoring dental hygiene faculty.

The literature has shown that dental hygiene program administrators cited time constraints as a reason why there are few structured mentoring activities in two-year programs. In addition, the administrators cited both a shortage of faculty with time to devote to mentoring and a lack of faculty support for mentoring activities (Blanchard & Blanchard, 2006). According to Mezirow (1997), it is the nature of adult learning to allow the individual to become an independent thinker by learning to negotiate his or her own values, meanings, and purposes. Knowledge can be transformed by questioning assumptions concerning teaching and learning which may eventually lead to changes in self-perception (Cranton, 2006; Fink, 2003; Knowles, 1989).

A phenomenological approach was used to gain a deeper understanding of the impact of mentoring on novice dental hygiene faculty retention and professional development. The phenomenological study allowed the researcher to elicit meaningful dialogue to explain what the experience, or phenomenon, of mentoring meant to the

protégés, enabling the researcher to gain insight and a holistic perspective on the topic (Patton, 2002). The emergent themes and detailed information from a limited number of participants were brought forth to increase the understanding and the meanings of the phenomenon (Berg, 2007; Creswell, 1998; Patton). The participants were purposively selected through a snowball sampling procedure from a population of dental hygiene educators in Florida. The number of participants followed the guidelines set forth by researchers Creswell (1998) and Patton (2002).

## Data Analysis and Coding Process

During the study, the focus of the analysis was to construct meaning out of the participants' responses (Creswell, 1998; Patton, 2002). The perceptions of the novice faculty members were analyzed to reveal the true meaning and essence of the lived experiences involved with the mentoring process (Moustakas, 1994; Patton; Rubin & Rubin, 2005). A preliminary coding list was developed using the review of the literature with an appreciation of the overarching research question. Data from this study were analyzed using Moustakas' modification of the Stevick-Colaizzi-Keen method of data analysis (Moustakas, 1994; Appendix I).

This study was conducted utilizing a secure online open-ended questionnaire. Upon completion of the questionnaire, participants' responses were downloaded and saved as documents for coding and analysis. The researcher used the process of epoch, which enabled the researcher to set aside, or bracket, initial personal views of the phenomenon; hence, only perceptions of the participants were documented. By doing so, the researcher alleviated the tendency to manipulate data to fit the researcher's reality.

Participants' responses were categorized by using the name of one of the most important instruments which a dental hygienist uses to determine health of the oral tissues, namely, the periodontal probe. Thus, the respondents were identified as Probe 1, Probe 2, Probe 3, etc.

To discover the layers of deeper meaning, the researcher looked for common themes by examining the responses as described by the participants; the relationships between variables were noted. First, personal perceptions were explored individually. The researcher read over each participant's complete submission numerous times to discover the individual's perceptions of the overall impact of mentoring and her/his perceptions of faculty development and retention. Next, the researcher looked at each online survey question and gathered each participant's individual response to that question; this process led to the discovery of beliefs and opinions which were common to the participants as a group. The different perspectives brought forth by the participants were instrumental in allowing the researcher to view the phenomenon that the participants experienced from multiple perspectives.

A color-coding system was devised by the researcher to label the common themes which corresponded to specific research questions. Notes were made in the margins of the documentation which allowed the researcher to cross-check the data from participant to participant and allowed the researcher to easily see commonalities between participants in the thick rich descriptions.

The remaining processes of analysis included imaginative variation and the synthesis of meanings and essences, as recommended by Moustakas (1994). The researcher documented all relevant statements, determined the themes, classified the

meanings and essences of the experiences of each participant, and integrated the information into a description of the mentoring experiences. A meta-matrix was created using the information garnered from each individual case. The data were extended and refined into new clusters of information to establish themes and meanings. The researcher followed up with some of the participants by submitting questions seeking clarification. In the analysis, the researcher looked for the impact that participation in the mentoring process had on the transformation of novice dental hygiene faculty members.

Processes used in this study to confirm quality included the use of thick rich descriptions of the responses of the participants, cross-checking the data and interpretation, coding the responses, and then recoding the responses after the passing of time to see if the original codes were confirmed. Credibility was enhanced by bracketing out the past experiences of the researcher. To further promote credibility, the researcher used the following methods: sampling only those who had experienced the phenomenon and who met the other criteria of being novice faculty, clarification and follow-up for validation, and use of an audit trail using direct quotes from the respondents. The sampling method confirmed that only full-time dental hygiene faculty members who had been in academia for five years or less and who had been involved with mentoring participated.

Clarification was achieved by allowing participants to have time to reflect on their answers and to amend their answers, if necessary. During the process of analysis, the researcher confirmed emergent findings from the study on the perceptions of the impact of mentoring by seeking clarification from the participants, as needed.

## Description of Participants

Demographic data relevant to the study were obtained utilizing the online questionnaire specifically designed for this study and posted on the SurveyMonkey™ website. Demographic questions centered on length of time as a full-time dental hygiene educator and whether or not the participant had been involved in a mentoring relationship. Age, ethnicity, and gender were not considered in this study, as the literature currently indicates that there are shared demographics and these are not relevant to the topic under study.

### *Years of Experience as a Full-time Dental Hygiene Faculty Member*

The research focused on dental hygiene faculty members who were in the beginning stages of their full-time academic careers. Of the seven participants in this study, approximately 43% had been a full-time dental hygiene instructor for one to two years. Each of these faculty members stated that she/he is engaged in some type of tenure process in order to gain permanent full-time status, known at some institutions as a continuing contract. The remaining 57% had been full-time for three to five years. One participant was an adjunct instructor for eleven years prior to being hired as a full-time instructor, and another had been with the institution as an adjunct instructor for several years before taking leave and coming back as a full-time faculty member.

### *Involvement in a Mentoring Relationship*

In keeping with the requirement for inclusion in the research on novice dental hygiene faculty, all participants had experienced a mentoring relationship. Only one participated in a structured faculty development program which included a mentor; the remaining participants were part of an informal mentoring process.

## Findings

Descriptions of the lived-experiences of the participants were assembled using themes common to the responses that served to address the overarching research questions. Outliers or comments and beliefs that were not common were also acknowledged. The participants were identified by an instrument commonly utilized to assess periodontal health and were named Probe 1, Probe 2, Probe 3, etc.

The aim of this study was to explore possible ways in which mentoring can help alleviate a proposed shortage of dental hygiene educators through retention and improved loyalty to the discipline. The following overarching research questions focus on this goal:

$RQ_1$: How can mentoring affect a novice faculty member's adjustment to academic work?

$RQ_2$: What changes are needed to adjust from being a novice to an experienced faculty member?

$RQ_3$: What are novice dental hygiene faculty members' perceptions of the role of mentoring on faculty retention and development?

The following section of this chapter presents the findings concerning specific research questions. Evidence is offered in the form of direct quotes that validate the themes and sub-themes.

### *Adjustment to Academic Work (RQ1) and Emergent Themes*

Dental hygiene faculty members have many concerns during their first years of academic life. Data gathered from the respondents in this study showed that there are numerous issues with which the novices need assistance and guidance. These issues

include: the administrative processes of teaching (paperwork and forms); dealing with college bureaucracy; calibration of faculty; dealing with difficult students; faculty development courses not geared specifically to dental hygiene; learning policies and procedures of the institution; limited computer skills of faculty; preparing course materials for online access; salaries, budget cuts, and layoffs; student club advising; the tenure process; time constraints; and using technology in teaching.

In exploring the perceptions of the participants on adjustment to academic work, the participants were asked to reflect on how the mentoring experience affected their adjustment as they transitioned into a full-time faculty position. Two interrelated main themes emerged from the responses: support and team work. While the main theme of support (Theme 1) is of no surprise, the means by which novice faculty received support was insightful. Support came about in several ways and from several people with whom the participants work. Those specifically selected as mentors were not the only elements of the supportive environment; others provided support, as well. Deans, program chairs, and other faculty members assisted the participants and impacted their adjustment to academic life. These other colleagues were also seen by some participants as mentors. Interestingly, participants did not mention that a mentor could act as a liaison to meeting other people who could provide assistance for novice faculty members at the institutions.

All participants (100%) confirmed the impact that the support of mentors made to helping meet the challenges of teaching. Probes 1, 2, 3, 4, 5, 6, and 7 all discussed the support of mentors and/or other faculty team members, some of whom were not necessarily categorized as mentors. Campus concerns, as well as classroom activities, were positively addressed and influenced by Probe 1's mentoring relationship. Probe 2

stated, "my mentor has helped me to develop a positive attitude and learning environment." Probe 3 stated that she/he, "Absolutely could not have come this far without the mentoring of seasoned faculty." The advantage of the mentoring experience for Probe 4 and for Probe 6 was in the area of dealing with difficult students, a sub-theme that transcended responses throughout the survey. As stated by Probe 4, "I think the biggest advantage to the mentoring experience was in the subject area of dealing with difficult students." Probe 6 stated that she looked to her mentor "for any advise [sic] on how to deal with difficult students." Probe 4's mentor "listened to my challenges" and provided positive comments. When replying about ease of transition to a full-time faculty member, the support for Probe 5 "made the transition very easy" and came from a volunteer mentor who "has always taken time to assist me in what ever I needed." Probe 5 also experienced informal mentoring from peers, the program chair, and the Dean.

Theme 2 was centered on the importance of a team approach to acclimate the novice faculty members to academia. This serves to reinforce the support of theme 1, already discussed. Both Probe 1 and Probe 2 spoke of the supportive team with which they worked. The faculty team of Probe 1 "contributes to the freedom to ask advice from others who have been teaching longer." Probe 5 discussed the benefits of team teaching that enables faculty members to learn from each other.

Data analysis on faculty experiences that could be improved through mentoring resulted in three emergent subthemes: the tenure process, formal structure for a mentoring program, and the myriad of documentation and paperwork that is required in academia. Probe 5 believed that a formal mentor would assist in the tenure process (Subtheme 1) due to the documentation and writing involved in the process itself and

stated, "Many of us in the tenure track feel like we are working on another dissertation" and, "The institution quickly forgets … that is on top of our classroom responsibilities." Probe 4 declared that several mentors both in and out of the department could provide help with student success, club advising, and explaining the different departments of the institution.

Probes 2 and 5 stated explicitly that a formal mentoring program (Subtheme 2) would benefit novice faculty. The more formal structure with more time allotted to mentoring would enable the novice to understand the documentation required by the colleges, allow an understanding of the institution's policies and procedures, and would also assist in evaluation of novice faculty members' teaching and learning. Probe 2 would like to have a more formal approach with specific timelines and goals, classroom evaluations by the mentor, and weekly meetings. Improved communication between all faculty and students and calibration in clinical courses were perceived as rationales for a formal mentoring program for novice faculty members by Probe 2. Interestingly, neither Probe 2 nor Probe 5 gave specific guidelines as to how long a formal mentoring relationship should take place.

The completion of paperwork required of faculty members (Subtheme 3) was a concern to Probes 1, 4, 5, and 7 (57%). Participants discussed issues such as online availability of forms, the paperwork that needs to be completed when advising student clubs, and documenting activities for the tenure process. As stated by Probe 7, "There are forms for everything and they are not always user friendly. Simple tasks like your door schedule and hours spent on daily tasks can and have been daunting." It was also noted

by Probe 7 that many new faculty members have limited computer skills, which serves to make many of these tasks seem intimidating.

*Adjustment from Novice to Experienced Faculty (RQ 2) and Emergent Themes*

Novice dental hygiene faculty members' perceptions presented emergent themes concerning the perceived difference between a novice and an experienced faculty member at their institutions. The overall themes that emerged were based on the support (Theme 1), the same theme discussed previously in the adjustment to academic work, and guidance (Theme 2) that the novice received. Probe 1 confirmed, "Most of the long-term faculty wished they had had the same kind of intentional orientation instead of learning everything by trial and error. I have resources, and know things about the campus that they are still learning." The observations of Probes 2, 5, and 7 (43%) concentrated on the fact that the other faculty members in their dental hygiene programs were supportive and helpful. While support and guidance were central to the experiences of many of the participants, subthemes emerged rooted in the lack of a formal support system for mentoring. Although support and guidance were received by the participants, Probe 2 stated, "Sometimes I just had to figure things out on my own." Probe 4 declared, "Although, some try to help, it seems like it is survival of the fittest."

Data from two participants provided a different perspective on the topic of being a novice faculty member in a dental hygiene program. Probe 1 and Probe 6 found that being a novice faculty member was an advantage. According to Probe 1, a fresh perspective is brought to the program by a novice, while Probe 6 declared that a novice will bring enthusiasm and real world experiences to the students, along with new ideas, knowledge, and attitude.

According to the respondents of the study, assistance in the adjustment to academic life came from many sources. Assistance came from college administrative programs and faculty development courses, program administrators including deans and program chairs, and from other faculty on campus. Informal and formal mentors in the dental hygiene programs also aided in the novice faculty member's adjustment, as acknowledged by Probe 2 and Probe 7 (Figure 2).

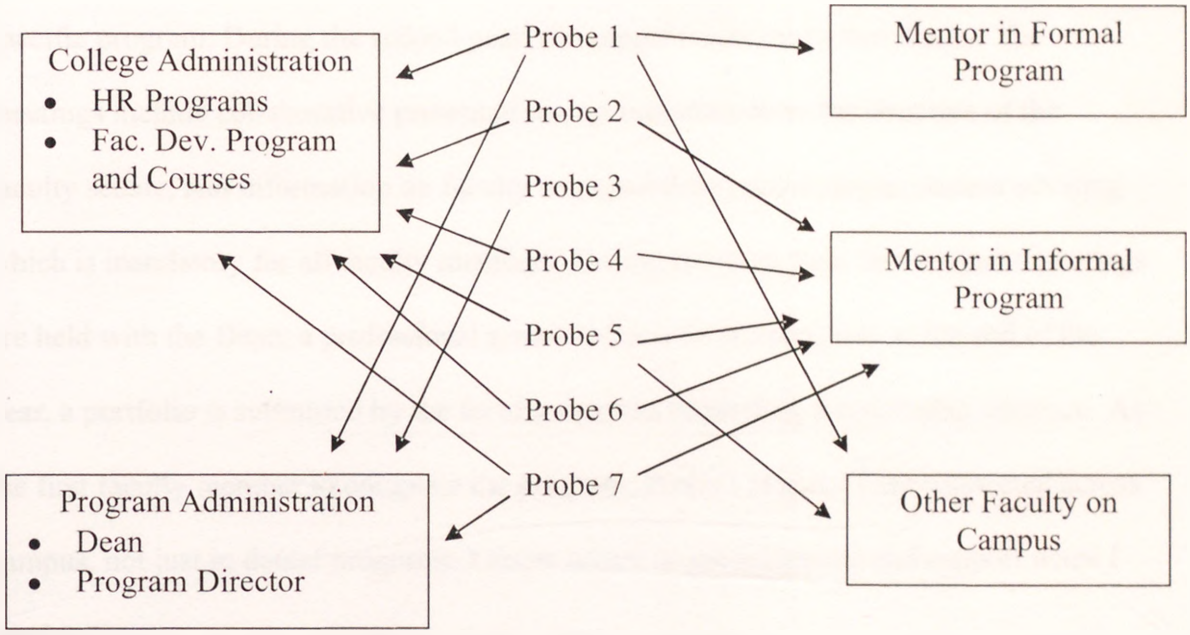


*Figure 2.* Assistance for novice dental hygiene faculty.

Most respondents (71%) found that the formal faculty development courses that they completed assisted in their adjustment to full-time academic life. Some of the institutions at which the novice dental hygiene faculty members work had specific course requirements for their faculty members. Some require in-depth courses which must be completed; one institution requires only two specific courses; one depends on a mentor and course work to assist the novice with online teaching and learning; and one of the institutions provides an in-depth faculty development program which lasts three years.

A structured three-year faculty development program, as discussed previously in a subtheme of adjustment to academic work, has enabled Probe 1 to transition from novice to full-time faculty member. As explained by Probe 1, the first year brings together a cohort of all full-time hires on campus for weekly meetings on several topics concerning the institution's administration, teaching, and learning. Cohort members are given the opportunity to attend the annual meeting of the National Institute for Staff and Organizational Development and are assigned mentors from within the faculty member's specific program. During the second year, the cohort meets every two weeks. The meetings include collaborative presentations, an introduction to the structure of the faculty senate, and information on faculty responsibilities pertaining to student advising which is mandatory for all faculty members. During the third year, less frequent meetings are held with the Dean, a professional growth plan is developed, and, at the end of the year, a portfolio is submitted by the faculty member requesting a continuing contract. As the first faculty member to complete the program, Probe 1 stated, "I am connected across campus, not just in dental programs. I know where to get assistance and support when I need it."

The formal courses required by institutions vary in topics and include assessment, distance learning, educational measurement and evaluation, engaging lectures, health care law, legal issues, the learning-centered college, and teaching methods, to name a few. A complete list of the course topics that the respondents have taken is found in Table 1.

Table 1

*Topics of Professional Development Courses*

- Assessment
- Classroom Management
- Community College in America
- Community College Philosophy
- Creating a Syllabus
- Curriculum and Instruction
- Curriculum Development
- Distance Learning
- Educational Design
- Educational Measurement and Evaluation
- Engaging Lectures
- Faculty Roles and Responsibilities
- Health Care Law
- Higher Education and the American Community College
- Learning Styles
- Learning Technologies
- Learning-Centered College
- Legal Issues
- Personal and Social Skills
- Reading Comprehension
- Rubric Construction
- Statistics for Education in the Health Professions
- Teaching and Learning in the Community College
- Teaching Methods
- Tests and M easurement

Probe 2 found that only one of the two courses required by the institution, *Teaching and Learning in the Community College*, contributed to faculty development. Probe 3 stated that a required course assisted in development of online resources for students. Probe 4 described an in-service orientation for new faculty and had taken faculty development courses required for the participant's graduate degree. Several courses have been completed by Probe 5, all of which deal with education, teaching, and learning. Topics included learning styles, emotional intelligence, rubric construction, and assessment as a tool for learning. The institution at which Probe 6 was employed requires 48 hours of continuing education in eight specific fields in higher education. Probe 6 stated, "All these courses were very helpful in providing me the latest insights, techniques, and knowledge in the *instructing* part of dental hygiene." Yet, because the

courses were not specifically geared to dental hygiene education, "I feel that I really needed the help of a colleague or mentor for guidance in teaching specifically dental hygiene students."

Support, as verified by Probes 1, 2, 4, and 5 (57%), assisted in the transformation to becoming an experienced member of the faculty, along with unity and respect. A subtheme commonly discussed was the opportunity to learn from others. The opportunity to observe and learn from peers was important to Probes 5 and 6. As stated by Probe 6,

> A picture is a thousand words. Watching, listening, observing another faculty member in action and in front of a class really gives you a feel of what to do or what not to do in order to keep the class interactive, interesting and productive.

In addition, feedback from a mentor was important to Probe 2 and acknowledgement as an expert and encouragement to share strengths was important to Probe 1.

Transformation from a novice to an experienced member of the dental hygiene faculty was facilitated by several activities. Though there was no single new recurring theme to the responses of the participants, there were several topics that were perceived as important to the novice faculty members. Teaching the same courses from year to year has contributed to the confidence of Probe 1. In addition, Probe 1 felt that being on the campus Academic Affairs Committee "has helped me to feel like I am contributing, giving something back." Changing the mentoring process to a more structured approach would assist in transformation, according to Probes 2 and 6. Shadowing the mentor was important to Probes 2 and 6. Observing interactions among faculty members and students is seen as important to Probe 2 and would help in the transformation from a novice to an experienced faculty member. Probe 6 was able to serve as a teacher's aid which "has

really helped to develop my ability to manage a classroom, provide a lecture and really concentrate on student learning." For Probe 3, assistance came from being allowed to try new ideas and learn first-hand. Probe 4 had to "hit the ground running" due to the fact that she was hired when the program was undergoing several changes without time to prepare for the adjustments.

The transformation of Probe 7 was made possible by the opportunity to develop online courses as a result of the advice of mentors and professional development courses. In addition, Probe 7 found, "Encouragement from department heads has really made a difference in my career here. They were all once new faculty like myself so that really helps us stay focused and aid in our transformations."

Another activity cited by the participants as having an impact on transformation to an experienced member of the faculty is the opportunity to interact with students through advising and assisting in student organizations. Probe 7 asserted that assisting in student organizations such as the Student American Dental Hygienists' Association enhanced the ability to be a mentor to students.

*Role of Mentoring on Faculty Retention and Professional Development (RQ 3) and Emergent Themes*

A supportive work environment, a recurring theme in the adjustment to academic work and the transformation to an experienced faculty member, was another reason that the novice faculty members cited for staying in academia. While, for some the support could be improved through a more formal and structured mentoring arrangement, all participants (100%) valued the mentoring experience. For Probe 2, mentoring for all faculty members, both part-time and full-time, is important and helps all faculty to "be on

the same page." When asked what determining factors would make the novice stay in academia, Probe 2 responded,

> Mentoring would help me understand the institution's philosophy and also help me to meet other faculty in the health professions. This would increase my opportunities to become involved in the college and therefore encourage me to remain with this institution.

The teamwork, support, encouragement, and friendships that were formed with campus-wide employees were important to Probe 1. "I am an integral part of a team, have clear expectations and goals and I am not looking to move to another community," stated Probe 5. "Having a supportive co-worker family can make a difference in any workplace," according to Probe 6.

The turning point in the participants' professional development was determined by many different factors. One of the participants, Probe 6, who has been a full-time educator for less than three years, stated, "I believe that every day is another opportunity to learn and I do not believe that I've come to a turning point." For some, namely Probe 1 and Probe 5, the turning point came when they were hired as full-time educators. For Probe 2, the turning point "will be my ability to mentor as well as I have been mentored." The same participant also stated that earning the respect of others and becoming a resource for adjunct faculty would be a turning point in professional development. The turning point for Probe 3 will come with more time and experience and for Probe 4 earning tenure, a Masters Degree in Health Professions, and participating in the accreditation process will offer a turning point. Professional development for Probe 7 took a positive turn when the participant was allowed to teach courses in which she/he

was interested, "...the freedom to take a course in a subject area that you really love and expound on it is precious."

Retention of faculty is an important issue facing institutions of higher education. If the decision to be retained in the full-time dental hygiene faculty position is theirs, the participants of the study would stay because they truly enjoy the work. However, if the decision is that of administration, that decision rests solely on whether or not tenure or a continuing contract is offered. For those participants of the study who are undergoing processes to achieve tenure or a continuing contract (57%), the overriding determination of whether or not participants will stay in their current positions is determined by the outcome of the administrative processes.

The full-time contract of Probe 4 will not be renewed if tenure does not go through and, "That is the only reason I would not continue as a faculty member at this institution." According to Probe 5, "I view the position I have as a positive aspect of my life" even though the outcome of the tenure process will determine the permanency of her/his full-time position. Other participants provided the following comments: "If it is my choice, I will stay until I retire" (Probe 1); "I love my work and as long as our budget holds out, and they continue to need me I will remain" (Probe 3); "I love my job and definietly [sic] want to maintain my current faculty position" (Probe 4); "I have been a RDH for many years and thoroughly enjoy sharing my experiences with students; education has given me the satisfaction that I am benefiting a future hygienist in their career" (Probe 5); "I plan on continuing in this position indefinitely. I really enjoy what I do" (Probe 6); and as stated by PROBE 7, "I so love what I am doing, they will have to

kick me out screaming!!! There are many things that go on that are agitating but never would I dream of leaving because of them."

Limited funding for professional development and salaries are also concerns. As Probe 7 cited, "[Professional development] also aids in dental hygiene faculty retention. Attending coursework and meetings with others who share our love for the field continues the cause of teaching excellence in dental hygiene." The issue of salary was a concern due to the fact that many dental hygienists in private practice make more than dental hygiene educators. According to Probe 5, the salary affects how the profession is seen by others: "We have had students come in to gain experience teaching and they just don't stay with it and again they can't believe the salary." The participant also stated that future educators do not realize what is involved in teaching, especially the number of hours of preparation that a full-time faculty position requires.

## Summary of Findings

This section provides a brief summary of the findings from the research concerning the exploration of the perceptions of novice dental hygiene faculty toward mentoring within academic settings. Vis-à-vis, an online open-ended questionnaire, participants expressed their perceptions of the importance of mentoring, professional development, and retention of dental hygiene faculty members.

The seven participants of this research study valued highly the mentoring relationships of which they were a part. The themes of support, guidance, and learning from others were important to them and to their success in the transition as full-time faculty members. However, participants believed that more time could be spent in the mentoring relationship, especially for those in the tenure-track programs, which would

enable information to be passed down from experienced to novice faculty members. A more formal mentoring structure was sought by several of the participants.

Across-campus assistance was seen as an important consideration for faculty retention and professional development, an issue which supports the perception of the participants that a team-oriented system is essential for faculty members. Perhaps one of the most telling themes of the participants' responses was how much they enjoy their work and their willingness to stay in their academic positions, if at all possible. Along with faculty retention, faculty development is crucial to institutions of higher education. Participants believed that the faculty development courses they took were valuable in assisting the transition to academia.

## Chapter Summary

The purpose of this study was to explore the perceptions, beliefs, and opinions of dental hygiene faculty toward mentoring in academic settings and its impact on professional development and retention. The sample consisted of seven full-time dental hygiene faculty members who have been full-time for five years or less and who teach at associate degree dental hygiene programs in Florida. Data were collected using an online, open-ended questionnaire developed by the researcher, administered through SurveyMonkey™, and analyzed utilizing the constant comparative method appropriate for a phenomenological study.

Data gathered from the participants resulted in emergent themes indications that support and guidance are seen as an important consideration for faculty retention and development. From the responses to what affected an adjustment to academic life, two main themes emerged: support and team work. Support for the participants came from

several people with whom the participants work, including mentors, deans, program chairs, and other faculty members. All participants confirmed the impact a mentoring experience made on their achievements. Many of the participants acknowledged the need for a structured mentoring system which would further enhance their abilities as dental hygiene educators.

Respondents confirmed that completing faculty development courses also assisted their adjustment to full-time academic life. The transformation to a full-time faculty member was facilitated by support of colleagues, centered on unity and respect, and the opportunity to learn from others. Support from colleagues was also seen as a reason to continue working in higher education. The turning point in the participants' professional development was determined by several factors, including being hired as full-time educators, becoming a mentor, earning the respect of others, and teaching courses in favorite subject areas. The fact that the participants enjoy what they do is a key factor in determining why the novice faculty members wish to continue working as full time dental hygiene educators.

# CHAPTER V

# DISCUSSION OF THE FINDINGS

## Introduction

Due to faculty retiring in large numbers, a focus for many institutions of higher education in the coming years will be to search for replacements in academia. Included among retiring academic professionals are dental hygiene educators. According to a survey of 266 dental hygiene programs in the U. S., it was estimated that 68% of the responding dental hygiene programs would soon need to replace full-time faculty (Nunn et al., 2004). The dilemma for dental hygiene program administrators is finding qualified faculty members who will feel acclimated and dedicated enough to stay on the job.

In business and professional circles, mentoring is perceived as a way to create a more effective organization (Clawson, 1996; Headlam-Wells, Gosland, & Craig, 2006; Scandura, Tejeda, Werther, & Kankau, 1996; Schrubbe, 2004; Woodd, 1997). Mentoring programs are often used in academia in order to retain employees and as a means of professional development. Mentoring processes are used in business, healthcare, and education, leading to several definitions of the term, depending on the setting and participants (Bennis & Nanus, 1997; Daloz, 2000; Gardner, 1990; Hopkins & Grigoriu, 2005; Johnson & Ridley, 2004; Knowles, 1989; Kram, 1988; Merriam, 1983; Scandura, Tejeda, Werther, & Lankau, 1996; Sorcinelli, Austin, Eddy, & Beach, 2006; Zachary, 2000).

## Summary of the Study

The goal of this qualitative study was to explore the perceptions, beliefs, and opinions of full-time dental hygiene faculty toward mentoring in academic settings and

the impact of mentoring on professional development and retention. Although the literature provided a wealth of information on studies involving mentoring in business and academic circles (Dolaz, 2000; Hopkins & Grigoriu, 2005; Knowles, 1989; Kram, 1988; Merriam, 1983; Sorcinelli, Austin, Eddy, & Beach, 2006), there were few studies specifically on mentoring dental hygiene faculty. New graduates of dental hygiene educational programs will need guidance in their new roles as faculty members. How the ever-changing knowledge base will be passed on and who will mentor new dental hygiene educators are two key issues facing dental hygiene program administrators.

## Purpose

The purpose of the study was to explore the perceptions of novice dental hygiene faculty members toward the mentoring process as a factor in developing experience within academic settings. This research study sought to uncover the role that a mentor can play in the academic life of dental hygiene faculty members. The findings presented ideas on how faculty members in the roles of mentor and protégé can be used to improve professional development and faculty retention.

This research study on mentoring for dental hygiene educators was a qualitative study due to the nature of the purpose of the study, which was to gain insight and a holistic perspective on the topic of mentoring and would not have been possible using a quantitative approach (Patton, 2002). The setting of the phenomenon of mentoring is social and creates a complex system between the mentor, protégé, and their surroundings, which lends itself to qualitative research. A phenomenological approach was used to gain a deeper understanding of the impact of mentoring on novice dental hygiene faculty with regard to professional development and retention.

The study explored the reactions of seven novice dental hygiene educators from Florida to the phenomena of mentoring, allowing for an increase in the depth of understanding of the lived-experiences of those under study. The emergent themes and detailed information from a limited number of participants were brought forth to increase the understanding and meanings of the phenomenon (Berg, 2007; Creswell, 1998; Patton, 2002).

The research was guided by the purpose of the study: namely, to explore how mentoring can help alleviate a projected shortage of dental hygiene educators through retention and improved loyalty to the discipline. The design of this study used qualitative methods to answer the following questions:

1. How can mentoring affect a novice faculty member's adjustment to academic work?
2. What changes are needed to adjust from being a novice to an experienced faculty member?
3. What are novice dental hygiene faculty members' perceptions of the role of mentoring on faculty retention and development?

The researcher was guided by the Code of Ethics of the American Dental Hygienists' Association and the American Educational Research Association (ADHA, 2006a; American Educational Research Association, 2000). An online open-ended questionnaire was designed to establish novice dental hygiene educators' perceptions of the mentoring process. The questionnaire was developed from a review of the literature and previously designed tools on mentoring, including work by Cambria (2006), Freking (2006), Zachary (2000), and Rose (2003). The questions were organized into three

categories which included mentoring, faculty retention, and faculty development, all of which align with the overarching research questions.

## Significance of the Study

This study is important for several reasons. *Oral Health in America: A Report of the Surgeon General* (United Sates Department of Health and Human Services [USDHHS], 2000) discussed the significant barriers to access to care for many people in the U. S. One of the key barriers included the shortage of oral health professionals to care for the population's oral health needs. The report detailed information on the link between oral disease and systemic disease and posited that, in the future, the availability of oral health care for many Americans will be determined by the number of oral health professionals, including dental hygienists. Due to a variety of factors, faculty shortages in dental hygiene programs are projected to skyrocket in the very near future. There are few research studies that focus on mentoring in the academic segment of the profession of dental hygiene. The results of this study will generate theories on how mentoring can enhance professional development and, thus, will enable institutions to adopt practices that will help retain quality educators.

The audience for the study includes current dental hygiene educators, new faculty members, and dental hygiene administrators who are determined to improve program efficiency through retention of dedicated faculty members. It is hoped that, having been taught by well-mentored dental hygiene educators, associate degree-level dental hygienists will choose to further their education to the baccalaureate level and beyond and enter the world of dental hygiene academia.

## Method

The participants were purposively selected through a snowball sampling procedure from a population of dental hygiene educators in Florida. The number of participants followed the guidelines set forth by researchers Creswell (1998) and Patton (2002). The prospective participants were sent an invitation via email and were asked to refrain from naming their institutions of employment in their responses. In order to be in the study, the respondents to the invitation to participate must have been teaching full-time in an associate degree dental hygiene program for five years or less and had to have been involved in a mentoring relationship. Age, ethnicity, and gender were not considered as the literature currently indicates that these are shared demographics and not relevant to the study.

Data were collected utilizing an online demographic data questionnaire specifically designed for this study and posted on the SurveyMonkey™ website. Upon completion of the questionnaire, participants' responses were downloaded and saved as documents for coding and analysis following the research of Moustakas (1994), Patton (2002), and Rubin and Rubin (2005). Participants' responses were categorized by using the name of one of the most important instruments which a dental hygienist uses to assess health of the oral tissues, namely, the periodontal probe. Thus, the respondents were identified as Probe 1, Probe 2, to Probe 7.

Individual perceptions were explored as the researcher read over each participant's complete submission numerous times to discover the perceptions of the overall impact of mentoring on professional development and faculty retention. A constant comparative method, appropriate for a phenomenological study, was used. Next,

the researcher considered each online survey question and gathered each participant's individual response to that question; this process led to the discovery of beliefs and opinions which were common to the participants as a group. The different perspectives were instrumental in allowing the researcher to view the phenomenon from multiple viewpoints.

The remaining processes of analysis included imaginative variation and the synthesis of meanings and essences, as recommended by Moustakas (1994). All relevant statements were documented, themes were established, and the information was integrated into a rich deep description of the mentoring phenomenon as experienced by the participants. The researcher followed up with some of the participants by submitting questions seeking clarification. In the analysis, the researcher looked for the impact that participating in the process of mentoring had on the transformation of novice dental hygiene faculty members.

Processes used in this study to confirm quality included the use of thick rich descriptions of the responses of the participants, cross-checking the data and interpretation, coding responses, and then recoding responses after the passage of time to see if the original codes were confirmed. To promote credibility, the researcher bracketed out past experiences and also employed an audit trail using direct quotes from the respondents. Clarification was achieved by allowing participants to have time to reflect on and amend their answers, if necessary.

## Discussion of the Findings

It became apparent to the researcher that the seven full-time novice dental hygiene faculty members who participated in this study emerged dedicated to their profession.

Participants expressed their perceptions on the importance of mentoring, professional development, and faculty retention using an online open-ended questionnaire specifically designed for the study. The data revealed that all of the participants (100% ) felt that mentoring is a worthwhile experience, although not all were involved in the phenomenon in the same way. The findings support the theoretical framework of transformative learning as posited by Mezirow (1997). Adults make meaning of their experiences using frames of reference or assumptions based their experiences. Mentoring was seen as a way to transform their learning experiences as novice dental hygiene faculty members. Participating in a mentoring relationship allowed the novices to move along the continuum to become experienced faculty members.

*Adjustment to Academic Work (RQ1)*

Both social activist Nelson Mandela and Malcolm S. Knowles, an influential figure in the field of adult education, cited the guiding influence of their mentors on their studies in social responsibility and adult education, respectively (as cited in Daloz, 2000; Knowles, 1989). The transformative process relies on the power of relationships that we experience (Daloz, 2000). When individuals are faced with challenges in their careers, Kram (1988) found that relationships are what encourage professional development.

The decision to pursue a career in academia can be confirmed by a successful mentoring relationship. Shepherd et al. (2001) stated that mentoring aided faculty in realizing the merit of staying in academia and assisted novice faculty members in reaching their goals. Dental hygiene faculty members are faced with many challenges during their first years of academic life. All participants (100 %) confirmed the impact of their mentors' support in helping them meet the challenges of teaching. Each participant

discussed the support of mentors and/or other faculty team members, some of whom were not necessarily categorized as mentors.

Campus concerns, as well as classroom activities, were positively addressed and influenced by Probe 1's mentoring relationship. Probe 2 stated the mentor contributed to a learning environment. The advantage of the mentoring experience for Probe 4 and for Probe 6 was in the area of dealing with difficult students, a sub-theme that transcended responses throughout the survey. When replying about ease of transition to full-time faculty member, the mentoring support provided Probe 5 with an easy shift to academic life.

Based on previous research, the role of the mentor is that of a role model and teacher (Zachary, 2000). Mentors were found to be vitally important in dental education to confirm faculty roles including that of a teacher, researcher, mentor, discipline leader, curricula developer, committee member, and clinician (Hand, 2007). The participants of this research study perceived their mentors as fulfilling these roles.

Those specifically named as mentors were not the only elements of the supportive environment. Deans, program chairs, and other faculty members assisted the participants and impacted their adjustment to academic life. Probes 1, 2, and 3 each spoke of the supportive team with which they worked. The faculty team of Probe 1 "contributes to the freedom to ask advice from others who have been teaching longer." Probe 5 discussed the benefits of team teaching that enables faculty members to learn from each other.

Research by Valeau and Boggs (2005) found that mentors can provide exposure to networking, training on special skills, and can assist with political aspects of an academic position. The importance of mentoring as a source of social support and

professional networking was confirmed by VanDerLinden (2005) when researching community college administrators. The community college administrators asserted that mentors assist in learning, provide advice and encouragement, and may help reduce obstacles concerning both professional development and family socialization (VanDerLinden).

According to the participants of this study, faculty experiences that could be improved through mentoring included the tenure process, providing a more formally structured mentoring program, and providing help with the paperwork required in academia. Probe 5 believed that a formal mentor would assist in the tenure process due to the documentation and writing involved in the process itself and stated, "The institution quickly forgets … that is on top of our classroom responsibilities." Probe 4 declared that several mentors, both in and out of the department, could provide help with student success, club advising, and explaining the different departments of the institution. Probes 2 and 5 stated that a more formal structure with more time allotted to mentoring would enable the novice to understand the documentation required by colleges, allow an understanding of the institution's policies and procedures, and would also assist in evaluations of novice faculty members' teaching and learning. The lack of structured mentoring programs for novice dental hygiene faculty members has been mentioned in previous research by Blanchard and Blanchard (2006).

Completion of paperwork required of faculty members was a concern to Probes 1, 4, 5, and 7 (57%). These issues included online availability of forms, the paperwork necessary when advising student clubs, and documenting activities for the tenure process. As stated by Probe 7, "There are forms for everything and they are not always user

friendly. Simple tasks like your door schedule and hours spent on daily tasks can and have been daunting." Probe 7 stated that many new faculty members have limited computer skills which can make tasks seem difficult. The responses further supported the idea that the mentoring relationship functions to enhance careers by providing coaching, protection, and sponsorship of novices, as stated in the literature (Hopkins & Grigoriu, 2005; Kram, 1988; Merriam, 1983; Scandura, Tejeda, Werther, & Lankau, 1996).

*Adjustment from Novice to Experienced Faculty (RQ2)*

Psychosocial functions of the mentoring relationship include role modeling, counseling, and friendship, which add to a sense of competence (Hopkins & Grigoriu, 2005; Kram, 1988; Merriam, 1983; Scandura, Tejeda, Werther, & Lankau, 1996). The mentoring relationship allows mentors to address concerns about self, career, and family, and it benefits the relationship by acknowledging the concerns of both parties (Kram, 1988). Probe 1 confirmed that "Most of the long-term faculty wished they had had the same kind of intentional orientation instead of learning everything by trial and error. I have resources, and know things about the campus that they are still learning."

The observations of Probes 2, 5, and 7 (43%) centered on the support and help that was received from other faculty members in their dental hygiene programs. Although support and guidance were received by the participants, Probe 2 stated, "sometimes I just had to figure things out on my own." Probe 4 declared, "Although, some try to help, it seems like it is survival of the fittest." According to Probe 7, mentoring helped bridge the gap between a career in clinical private practice and a career in higher education. These perceptions of novice faculty members suggest that the roles of the novice as a learner may not be well-defined. This is an important consideration of

any mentoring relationship, as hypothesized by Zachary (2005) and Portner (2002), who stated that the duties of novices include that of active participants who take the initiative using a plan to achieve goals.

Two participants provided a different perspective on the adjustment necessary to become an experienced faculty member. Probe 1 and Probe 6 found that being a novice faculty member was an advantage. According to Probe 1, a novice can bring a fresh perspective to the program, and Probe 6 declared that a novice can bring enthusiasm and real world experiences, new ideas, knowledge, and attitude to the students.

A structured three-year faculty development program has enabled Probe 1 to transition from novice to experienced full-time faculty member. The first year brings together a cohort of all full-time hires on campus for weekly meetings, and other activities are also encouraged. During the second year, meetings every two weeks include collaborative presentations, an introduction to the structure of the faculty senate, and information on faculty responsibilities pertaining to student advising. During the third year, less frequent meetings are held with the Dean, a professional growth plan is developed, and, at the end of the year, a portfolio is submitted by the faculty member requesting a continuing contract. As the first faculty member in the department to complete the program, Probe 1 stated, "I am connected across campus, not just in dental programs. I know where to get assistance and support when I need it."

As a consequence of modifications to dental hygiene curricula, faculty members will need to adapt to new methods of facilitating learning with a focus on student engagement and evidence-based decision making (Darby & Walsh, 2003). The formal faculty development courses required by institutions vary and include assessment,

distance learning, educational measurement and evaluation, engaging lectures, health care law, legal issues, the learning-centered college, and teaching methods.

Probe 2 found that only one of the two courses required by the institution contributed to faculty development. Probe 4 described an in-service orientation for new faculty and had taken faculty development courses required for the participant's graduate degree. Courses completed by Probe 5, included topics such as learning styles, emotional intelligence, rubric construction, and assessment as a tool for learning. Probe 6 was required to take 48 hours of continuing education in eight specific fields in higher education. Yet, because the courses were not specifically geared to dental hygiene education, "I feel that I really needed the help of a colleague or mentor for guidance in teaching specifically dental hygiene students." Faculty development programs, such as these provide cultures of teaching excellence, answer faculty needs, and advance new proposals in teaching and learning (Sorcinelli, Austin, Eddy, & Beach, 2006).

The transformative learning model established that the learner's questioning of previously held assumptions would open the learner to new ideas (Mezirow, 1997). According to Sparks (2005), the move from student to academician is based on learning community experiences, and these experiences can enhance professional judgment. Furthermore, collaborative and participatory experiences can transform knowledge and lead to changes in self-perception (Cranton, 2006; Fink, 2003; Knowled, 1989). The opportunity to observe and learn from peers was important to Probes 5 and 6. In addition, feedback from a mentor was important to Probe 2. Acknowledgement as an expert and encouragement to share strengths was important to Probe 1.

In this study, the transformation from a novice to an experienced member of the dental hygiene faculty was facilitated by several activities. Teaching the same courses from year to year has contributed to the confidence of Probe 1. Probe 1 stated that being on the campus Academic Affairs Committee "has helped me to feel like I am contributing, giving something back." As stated previously, changing the mentoring process to a more structured approach would assist in transformation, according to Probes 2 and 6. Shadowing the mentor was important to Probes 2 and 6. Observing interactions among faculty members and students is seen as important to Probe 2. Probe 6 was able to serve as a teacher's aid which was perceived as a valuable endeavor. For Probe 3, assistance came from being allowed to try new ideas and learn first-hand. Probe 4 had to "hit the ground running" due to the fact that she/he was hired when the program was undergoing several changes and without time to prepare for the adjustments. Probe 7's transformation was made possible by the opportunity to develop online courses as a result of the advice and encouragement of mentors and by participating in professional development courses. Another activity cited by the participants as having an impact on transformation to an experienced member of the faculty is the opportunity to interact with students through advising and assisting in student organizations, especially, according to Probe 7, organizations such as the Student American Dental Hygienists' Association.

*Role of Mentoring on Faculty Retention and Professional Development*

The mentoring process often plays a key role in leadership (Bennis & Nanus, 1997; Johnson & Ridley, 2004; Kram, 1988). Gardner (1990) referred to mentors as people who recognize the task of their jobs, have a willingness to try, have concern and patience, and who nurture and promote others, a metaphor used in other studies on

mentoring to describe the mentoring process and cultivating competent employees (Zachary, 2000). There are many conditions that encourage mentoring as well as threats to a mentoring relationship. Conditions that encourage mentoring include formal or informal training, time spent in the profession, and the culture of the organization (Fagenson-Eland, 2005; Giebelhaus & Bowman, 2002; Hopkins & Grigoriu, 2005; VanDerLinden, 2005). Threats include time involved in the process, unmet expectations, frustration, and life experiences (Kram, 1988; Yendol-Hoppey & Dana, 2007; Zachary, 2005). All participants of this research study (100%) valued their mentoring experiences. Mentoring for all faculty members, both part-time and full-time, is important to Probe 2 to help all faculty "be on the same page." When asked what determining factors would make the novice stay in academia, Probe 2 responded,

> Mentoring would help me understand the institution's philosophy and also help me to meet other faculty in the health professions. This would increase my opportunities to become involved in the college and therefore encourage me to remain with this institution.

The teamwork, support, encouragement, and friendships that were formed with campus-wide employees were important to Probe 1. "I am an integral part of a team, have clear expectations and goals and I am not looking to move to another community" stated Probe 5. "Having a supportive co-worker family can make a difference in any workplace," according to Probe 6.

The turning points in the participants' academic careers were determined by many different factors. For Probe 1 and Probe 5, the turning point came when they were hired as full-time educators. For Probe 2, the turning point "will be my ability to mentor as well

as I have been mentored." The same participant also stated that earning the respect of others and becoming a resource for adjunct faculty would be a turning point in professional development. The turning point for Probe 3 will come with more time and experience, and, for Probe 4, earning tenure, a Masters Degree in Health Professions, and participating in the accreditation process will offer a turning point. Professional development for Probe 7 took a positive turn when the participant was allowed to teach courses in which she/he was interested.

Solutions to the proposed shortage of dental hygiene faculty include recruiting the best personnel, enticing the best students into careers in academia, making an academic career financially realistic, and mentoring faculty (Haden, Beemsterboer, Weaver, & Valachovic, 2000; Hand, 2007, Shepherd et al., 2001;). Retention of faculty is an important issue facing institutions of higher education and is determined by several factors, including career satisfaction. In turn, career satisfaction is dependent on the work environment, salary, and workload (Collins, Zinskie, Kesluls, & Thompson, 2007). If the decision to be retained in the full-time dental hygiene faculty position were theirs, the participants of the study would stay because they truly enjoy the work.

For those participants of the study who are undergoing processes to achieve tenure or a continuing contract (57%), the overriding determination of whether or not participants will stay in their current positions is determined by the outcome of the administrative processes. The full-time employment contract of Probe 4 will not be renewed if tenure does not go through. According to Probe 5, "I view the position I have as a positive aspect of my life" even though the outcome of the tenure process will determine the permanency of her/his full-time position. Probe 1 stated, "If it is my

choice, I will stay until I retire." According to Probe 3, "I love my work and as long as our budget holds out, and they continue to need me I will remain." Probe 7 made the following statement: "I so love what I am doing, they will have to kick me out screaming!!! There are many things that go on that are agitating but never would I dream of leaving because of them."

Faculty members are the most valuable resource and an essential investment of education (Menges, 1999; O'Banion, 1997; Schuster & Finkelstein, 2006; Shepherd, Nihill, Botto, & McCarthy, 2001; Sorcinelli, Austin, Eddy, & Beach, 2006). Institutions of higher education have a mission to hire competent faculty members, and those employees who are mentored are more likely to remain committed to an organization (Johnson and Ridley, 2004). Consequently, the importance of professional development in serving the needs of faculty members cannot be overstated (Boyer, 1990; Sorcinelli, Austin, Eddy, & Beach). The participants of this study have concerns about the fact that there is limited funding for professional development at many institutions. As Probe 7 cited, "[Professional development] also aids in dental hygiene faculty retention. Attending coursework and meetings with others who share our love for the field continues the cause of teaching excellence in dental hygiene."

The issue of salary was a concern and, as indicated by Probe 5, the salary affects how the profession is seen by others: "We have had students come in to gain experience teaching and they just don't stay with it and again they can't believe the salary." Probe 5 also commented that future educators do not realize what is involved in teaching, especially the number of hours of preparation that a full-time faculty position requires.

## Summary of Findings

This section summarizes the themes that emerged from the perceptions and insights of the seven full-time dental hygiene educators who provided responses to the open-ended online questionnaire specifically designed for this study and posted on the SurveyMonkey™ website. The research allowed for an increase in the depth of understanding of the lived-experiences of those under study. The seven participants of this research study highly valued the mentoring relationships of which they were a part.

### *Adjustment to Academic Work is Facilitated by Support from Others*

When asked to reflect on how the mentoring experience affected adjustment into a full-time faculty position, two interrelated main themes emerged from the participants' responses: support and team work. The themes of support, guidance, and learning from others were important to them and to their success in the transition to a full-time faculty position, as stated by all of the participants. Probe 1 described the assistance from others in the cohort and around the campus that enhanced the adjustment to academic work.

The importance of a team approach to acclimate the novice faculty members to academia served to reinforce the support theme already discussed. A subtheme that emerged was the opportunity to learn from others. Another subtheme included a recommendation by several participants for a more formal structure for the mentoring process. The two themes of support and teamwork are consistent with the research of Hopkins and Grigouiu (2005), Kram (1988), Merriam (1983), and Zachary (2000).

### *Support of Others Guides the Adjustment from Novice to Experienced*

Along with unity and respect, the overall themes that emerged concerning the perceived difference between a novice and an experienced faculty were based on the

support and guidance that the novice received. In fact, support assisted in the transformation to becoming an experienced member of the faculty, as verified by Probes 1, 2, 4, and 5 (57%). Probe 3 was thankful for a supervisor who mentored on the administrative part of teaching, was not a micromanager, and allowed the novice to try new ideas. This further confirms the research by Daloz (2006) which found that transformation relies on relationships.

Another theme that came forth from the responses of the participants was the importance of formal faculty development courses about adjustment to becoming an experienced faculty member. Probe 4 stated that the faculty development courses have enhanced her/his ability as an instructor. Probe 6 acknowledged that formal faculty courses provided insight, new techniques, and knowledge.

As stated previously, a subtheme concerning the transformation from novice to experienced faculty member was the desire for a more structured approach to mentoring. Several participants stated that they would appreciate a more structured process. Only one participant, Probe 1, described a detailed mentoring program in which she/he was involved. Another subtheme that surfaced was based on the tenure process. Probe 5 stated that the tenure process created additional demands on top of regular faculty responsibilities. For Probe 4, who was undergoing the tenure process, the process will determine if she/he is retained as a full-time faculty member.

*Mentoring Does Play a Role in Faculty Retention and Professional Development*

When answering the online questionnaire, all of the participants (100%) emphasized the value of their mentoring experiences. Across-campus assistance was seen as an important consideration for faculty retention and professional development, a

finding which supports the perception that a team-oriented system is essential for faculty members. The concern and support from the mentoring relationship fostered an opportunity to learn from others, as stated by each participant. Five of the seven participants (71%) shared that having time to spend working with students contributed to faculty retention and professional development.

In addition to mentoring, formal faculty development courses were seen as a key to professional development. The varied course topics contributed to the different aspects of teaching and learning for the participants. Six of seven participants (85.7%) gave insight to the importance of specific courses for the facilitation of learning.

## Conclusions

One of the most revealing themes of the participants' responses to the online questionnaires was how much they enjoy their work. Their willingness to stay in their academic positions, if at all possible, is significant to their career satisfaction. Dental hygiene faculty members who participated in this research study are a dedicated group of individuals who value the impact that mentoring has had on their careers, on faculty retention, and on professional development. Mentoring programs that have a formal structure are perceived by the participants as the most efficient approach to accommodate the needs of novice faculty members. In addition, professional development and faculty retention can be improved by formal course work that focuses on topics related to improvement in teaching and learning.

## Recommendations

The findings of the study on the impact of mentoring on faculty retention and professional development have practical applications. This research study sought to

uncover the role that a mentor can play in the academic life of dental hygiene faculty members and in enabling the retention of dedicated, competent professionals. The information gathered from the participants can be used to develop ideas for training programs to mentor new dental hygiene educators. The observations that were made by the researcher demonstrated that the social processes that make up the academic environment are critical to a successful career as a faculty member. After analyzing the data, patterns were established that showed that the novice faculty members valued the support and assistance they received from mentors, administrators, and colleagues. It can be concluded from the research that mentoring is a viable way for institutions to contribute to faculty retention and professional development.

*Further Research*

As a result of this research, there are several recommendations for further study. First, since little research has been done on dental hygiene faculty members who teach in community colleges, it is recommended that research on the needs of novice community college faculty members may prove valuable as a tool for guidance in developing a formal structured mentoring program and for professional development programs. Since the cultural diversity of dental hygiene students and faculty members may change in the future, the study could focus on mentoring from a culturally diverse perspective.

Second, it is recommended that a study be carried out to acknowledge the needs of adjunct dental hygiene faculty members. Third, it is recommended that a research study on the perceptions of faculty members who are ready to retire be developed. This study could explore how they perceive their worth to the novice faculty and if they are interested in passing down valuable knowledge. Fourth, a quantitative study is

recommended to confirm the hypotheses on mentoring using a larger population. This would allow a more broad-based response and will facilitate generalization of findings of a larger number of contributors.

*Implications for Practice*

There are significant barriers to access to healthcare for many people in the U. S., including a shortage of oral healthcare professionals. Since dental hygiene programs graduate oral preventive care experts, it is important that the institutions employ dedicated quality educators. After exploring the perceptions of the novice dental hygiene faculty members toward mentoring within academic settings, several implications for practice surfaced. First, individual dental hygiene programs could provide new faculty members with the tools to be successful, including developing a structured mentoring program that includes not only information about the dental hygiene program itself, but also information on the relationship between the program, the campus, and the rest of the institution. Roles and responsibilities of both the mentor and the protégé should be well-defined, as well as the expectations of the mentoring experience.

Second, institutions of higher education could develop formal mentoring programs for all new faculty members. The structured program could pair faculty members from a variety of disciplines which would allow the cohort members to access information and ideas across the campuses. Third, institutions could take a leadership role and provide funding for faculty development with a focus on both mentoring and on formal course work. This could affirm and enhance the mission of the institution as a center of teaching and learning, facilitate in the transformation of educators from passive

to active learners, and enable the institutions to adopt practices that will help retain quality educators.

## Chapter Summary

The intention of this chapter was to provide a discussion of the findings of the study on novice dental hygiene faculty members. The findings supported the theoretical framework of transformative learning as the dental hygiene faculty members moved through the continuum from novice to experienced members of the faculty. The transformative learning with which the participants were involved brought a shift from being a dental hygiene clinician to becoming an academician. The findings were related to the three research questions designed to explore the perceptions, beliefs, and opinions of dental hygiene faculty toward mentoring in academic settings and its impact on professional development and retention.

The participants revealed an overwhelming acknowledgment of the impact of mentoring on their academic careers, although their mentoring relationships took on many forms. One of the participants was offered an in-depth three-year program for faculty development which included mentoring at several levels; yet, for the most part, the mentoring relationships of the rest of the participants were more informal. The key themes that emerged from the participants' responses were support and teamwork. The participants believe wholeheartedly that their career satisfaction is guided by support from mentors and colleagues. The issues with which novice dental hygiene faculty members had to deal vary and include difficult students, paperwork, and the tenure process. It was the perception of the participants that these issues could be overcome with the guidance and support of mentors and with formal faculty development course work.

The participants suggested that a more structured mentoring program for all faculty members would assist them in their transition to becoming a full-time faculty member. This would allow faculty to be calibrated with each other, to be on the same page with students, and improve communication. It would also provide dental hygiene faculty members with a clearer understanding of the institution as a whole. One of the most revealing themes of the participants' responses to the online questionnaire was how much they enjoy their work. Their willingness to stay in their academic positions, if at all possible, is significant to their career satisfaction.

Recommendations for further research include: (a) conducting a study on the needs of novice community college faculty members may prove valuable as a tool for guidance in developing a formal structured mentoring program and for developing professional development programs; (b) conducting a study on mentoring from a culturally diverse perspective; (c) carrying out a study to explore the needs of adjunct dental hygiene faculty members; (d) conducting a study to explore the perceptions of retiring faculty members on how they perceive their worth to novice faculty; and (e) a quantitative study to confirm the hypotheses on mentoring using a larger population that would allow a more broad-based response and will facilitate generalization of findings of a larger number of contributors.

There are several implications that have come from the research on novice dental hygiene faculty members. First, individual dental hygiene programs could provide new faculty members with the tools to be successful by developing a structured mentoring program. Second, institutions of higher education could develop formal mentoring programs for all new faculty members, integrating information across the institution.

Third, by taking a leadership role and providing funding for faculty development with a focus on both mentoring and on formal course work, institutions could affirm and further the mission of the institution, facilitate the enhancement of education, and adopt practices that will help retain quality educators.

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APPENDIX A

INTRODUCTION/RECRUITMENT FLYER

# Full-Time Educators Needed for Mentoring Study

**WE VALUE FACULTY OPINIONS!**

You can help advance the knowledge base on dental hygiene education!

We are searching for a maximum of ten (10), minimum of six (6) full-time dental hygiene faculty members from associate-degree programs to provide their input to a research study on mentoring. Criteria for participation in the research include being a full-time dental hygiene faculty member for five (5) years or less who has been involved in a formal or informal mentoring relationship as a mentor or a protégé. Confidentiality will be safeguarded via a secure website through SurveyMonkey™. The access to the online research questionnaire will take place from the faculty member's home computer address and should not interfere with faculty duties or responsibilities.

If you choose to participate in the research, you will be asked to do the following:

- Visit a secure website at http://www.surveymonkey.com (see access information below) to review an explanation of the study and the Informed Consent Form.
- If you agree to participate, you will need to indicate your intent to participate by selecting "yes" on the electronic Informed Consent Form. If you decide not to participate, you will respond by selecting "no" and proceed out of the website.
- Once you confirm your participation by selecting "yes" on the Informed Consent Form, you will then be asked to enter inclusion criteria, and answer the questions. You will also be asked to identify a home email address to receive further communication from the researcher, should you wish to do so. There are no known risks to participation. Should you not meet the criteria for inclusion, you will be directed out of the website.

The anticipated time to complete the questionnaire is approximately 60 minutes with 30 minutes for possible follow-up questions after initial submission – a total time commitment of no more than one and one-half hours over the course of the study. Your participation or decision not to participate in this study will not impact your employment or your professional standing. You may withdraw your data from this study at anytime without consequence. We look forward to learning about your perceptions regarding mentoring. Don't hesitate – ***a maximum of only 10 faculty members can participate!*** Please contact Katherine A. Woods at raysyacht@tampabay.rr.com ASAP!

## APPENDIX B

## EMAIL LETTER OF INTRODUCTION

Dear Dental Hygiene Program Director:

We are searching for a maximum of ten, minimum of six, dental hygiene faculty members from associate-degree programs throughout the state to provide their input for a research study on mentoring. This study will help advance the knowledge base on dental hygiene education. The access to the online research questionnaire will take place from the faculty member's home computer address and should not interfere with faculty duties and/or responsibilities.

A flyer has been enclosed which describes the study and the role of the participants. It would be appreciated if you could post the enclosed flyer at your facility for all adjunct and full-time faculty members to see. Please contact me if you are unable to comply with this request. The study will take place soon so your quick response would be greatly appreciated.

I appreciate your willingness to assist in this endeavor.

Sincerely,

Katherine A. Woods

Encl.

## APPENDIX C

## FOLLOW -UP EMAIL REQUEST FOR PARTICIPATION

Dear Fellow Dental Hygiene Educators:

We need your help! We are searching for a maximum of ten, minimum of six, full-time dental hygiene faculty members from associate-degree programs throughout the state to provide their input for a research study on mentoring. This study will help advance the knowledge base on dental hygiene education. The access to the online research questionnaire will take place from your home computer address and should not interfere with your faculty duties and/or responsibilities as it is anticipated to take up to one an hour to complete the initial questionnaire. If the researcher should need to contact you for clarification and follow-up, it is anticipated to take another 30 minutes. Please consider participating in this study ASAP!

If interested, see the attached flyer and contact the researcher at raysyacht@tampabay.rr.com or at (727)734-5113.

Thank you for your consideration.

Katherine A. Woods

APPENDIX D

GOAL REACHED

Dear Fellow Dental Hygiene Educator:

Thank you for offering to participate in the research study mentoring. We have reached our goal of ten participants. If we find that more participants are needed, you will be notified of the availability for additional input from you.

Thank you, again, for your offer to participate.

Katherine A. Woods

## APPENDIX E

## BARRY UNIVERSITY INFORMED CONSENT FORM

Your participation in a research project is requested. The title of the study is "Exploring the Perceptions of Novice Dental Hygiene Faculty Toward M entoring Within Academic Settings." The research is being conducted by Katherine A. Woods, a student in the Adrian Dominican School of Education in the Higher Education Administration and Leadership Department at Barry University, and is seeking information that will be useful in the field of dental hygiene education. The aims of the research are to learn if mentoring is a way to improve the professional development and retention of dental hygiene faculty. In accordance with these aims, a confidential online questionnaire will be used. We anticipate the maximum number of participants to be ten (10), minimum of six (6).

If you decide to participate in this research, you will be asked to complete an online questionnaire via SurveyMonkey™ which should take approximately 60 minutes. If clarification and follow-up are needed, it is anticipated to take approximately an additional 30 minutes, for a total of ninety minutes, maximum.

Your consent to be a research participant is strictly voluntary and should you decline to participate, choose to refuse to answer any question(s), or withdraw at any time during the study, there will be no adverse effects on your employment or professional standing.

There are no known risks to you as a participant in this study. Although there are no direct benefits to you, your participation in the study may help our understanding of the role of mentoring for dental hygiene faculty retention and professional development.

As a research participant, information that you provide will be held in confidence to the extent permitted by law. Any published results of the research will refer to participants' monikers and no names will be used in the study. Data will be kept in a locked file in the researcher's home office. Any identifiers will be kept separate from the data. All data will be destroyed within five (5) years from the date of completion of the doctoral program.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Katherine A. Woods, at (727) 734-5113; my supervisor, Dr. Carmen McCrink, at (305)899-3702; or the Institutional Review Board point of contact, Mrs. Barbara Cook, at (305)899-3020. If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form and faxing it to the researcher at 727-734-5113.

**Voluntary Consent**

I acknowledge that I have been informed of the nature and purposes of this experiment by Katherine A. Woods and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this experiment.

| | | | |
|---|---|---|---|
| _____ | _____ | | |
| *Signature of Participant* | *Date* | | |
| _____ | _____ | _____ | _____ |
| *Researcher* | *Date* | *Witness* | *Date* |

APPENDIX F

ONLINE SURVEY INCLUSION CRITERIA AND DEMOGRAPHICS

**SurveyMonkey™ Questionnaire**

**How long have you been a full-time dental hygiene educator?**

I am not a full-time faculty member.

1-2 years

3-5 years

6 years or more

**Have you been involved in a mentoring relationship (formal or informal)?**

Yes

No

**May the researcher contact you for follow-up, if necessary?**

Yes (please give HOME contact information below)

No

HOME contact information

## APPENDIX G

## ONLINE SURVEY OPEN-ENDED QUESTIONNAIRE

**SurveyMonkey™ Questionnaire**

1. **Describe any formal faculty development courses that you have had and how they contributed to your development as a faculty member. (Please be explicit)**

2. **Describe your perceptions on being a novice member, rather than an experienced member, of the faculty at your institution. (Please be explicit)**

3. **You have stated that you have been in a mentoring experience or have been seen as a protégé. How has the mentoring experience affected your adjustment to work as a full-time faculty member? (Please be explicit)**

4. **What will determine whether or not you will continue in your position as a faculty member at this institution? (Please be explicit)**

5. **Which aspects of the mentoring relationship that you were a part of contributed to, or could have contributed to, your development as a faculty member? (Please be explicit)**

6. **Which experiences did you have as a novice faculty member that may have been improved through mentoring? (Please be explicit)**

7. **Which activities or experiences contributed to, or could contribute to, your transformation from a novice faculty member to an experienced one? (Please be explicit)**

8. **What do you see as a turning point in your professional development as a dental hygiene educator? (Please be explicit)**

9. **Please provide any other information that you would like to add about dental hygiene faculty retention, faculty development, or mentoring. (Please be explicit)**

## APPENDIX H

## THANK YOU FOR PARTICIPATION

Dear Fellow Dental Hygiene Educators:

Thank you for participating in the research study on mentoring. By taking part in this research, you have contributed to the advancement of the profession of dental hygiene and contributed to the body of knowledge concerning dental hygiene faculty and the study may help our understanding of the role of mentoring for faculty retention and professional development. Your involvement has been extremely valuable. Should you wish a copy of the results, please contact me at raysyacht@tampabay.rr.com, and I will be happy to accommodate your request.

Sincerely,

Katherine A. Woods

## APPENDIX I

## MOUSTAKAS' MODIFICATION OF THE STEVICK-COLAIZZI-KEENE METHOD OF DATA ANALYSIS

Moustakas presents his version of the Stevick - Colaizzi - Keen method, which is constructed from his modification to methods of analysis used by the three authors.

The steps for this are given as follows:

1. Using a phenomenological approach, obtain a full description of your own experience of the phenomenon.
2. From the verbatim transcript of your experience, complete the following steps:
    a. Consider each statement with respect to significance for description of the experience.
    b. Record all relevant statements.
    c. List each nonrepetative, nonoverlapping statement. These are the invariant horizons or meaning units of the experience.
    d. Relate and cluster the invariant meaning units into themes.
    e. Synthesize the invariant meaning units and themes into a description of the textures of the experience. Include verbatim examples.
    f. Reflect on your own textural description. Through imaginative variation, construct a description of the structures of your experience.
    g. Construct a textural-structural description of the meanings and essences of your experience.
3. From the verbatim transcript of the experience of each of the co-researchers, complete the above steps a to g.
4. From the individual textural-structural descriptions of all co-researchers' experiences, construct a composite textural-structural description of the meanings and essences of the experience, integrating all individual textural-structural descriptions into a universal description of the experience representing the group as a whole.

Citation:
Moustakas, C. E. (1994). *Phenomenological research methods.* Thousand Oaks, CA: Sage Publications