ABSTRACT

NURSE PRACTITIONERS' PROMOTION OF ORAL HEALTH CARE PRACTICES IN UNDERINSURED AND UNINSURED ADULTS

By Vicki C. Ray

The purpose of this study was to explore how nurse practitioners promote oral health care in their underinsured and uninsured adult patients, as well as to identify factors that discourage and encourage the integration of oral health promotion. The lack of access to oral health care is a complex problem facing many Americans, especially the economically disadvantaged. The Surgeon General's Report on Oral Health emphasizes a need for a collaborative effort and call to action in promoting oral health. Many times nurse practitioners serve as an individual's point of first contact with the health care system. Nurse practitioners are in a position to influence the oral health care practices of individuals who otherwise may receive no oral health care.

Pender's Health Promotion Model (HPM) was used as a framework for this study. The HPM is based on assumptions that clients play an active role in their health care behavior and health maintenance (Pender, 1996).

This study used a descriptive design. The convenience sample was nineteen nurse practitioners who provided preventative and acute health care services, and are practicing in several clinics serving the underinsured and uninsured adult population in the Midwest. Data collection consisted of a demographics and an open-ended questionnaire relating to oral health care promotion practices. This questionnaire was mailed to participants. Anonymity and confidentiality was maintained by using numbers to identify questionnaires and asking participants not to sign their names. A narrative analysis of answers provided in the self report was implemented to identify categories and connection from the narrative content.

Respondents reported that their awareness of the connection between oral health and general health was the main reason they incorporated oral health care promotion in practice. They also reported many barriers the underinsured and uninsured adult populations face which make it difficult to help them with their oral health care needs. Mentioned throughout the data are lack of access, lack of time, patient and provider priorities, and cost. Over half of the respondents felt they needed more knowledge about how to screen for and promote good oral hygiene among the underinsured and uninsured patients.

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by

Vicki C. Ray

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This paper is dedicated to my husband Bill, and my two sons, Nathan and Adam, whose sacrifices were numerous over the past couple years. Through hard work and their support my goal of becoming a Family Nurse Practitioner has been attained. My message to my two sons, through hard work and perseverance, you can do anything you want to do. Nathan and Adam, whom I love more than anything in the world, have inspired me to always strive to be the best that I can be.

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CHAPTER I

INTRODUCTION

Introduction

Based on findings from a 2000 Report on Oral Health, the Surgeon General called for a national effort to improve oral health among all Americans. The report indicated a growing epidemic of dental and oral disease, especially among the poor, including increased risk for severe medical complications resulting from limited oral care and treatment. The report calls for a national collaborative effort among communities and the health professions to improve the nation's oral health and for oral health to become an accepted component of general health (U.S. Department of Health and Human Services, 2000b). In 2006, the Centers for Disease Control (CDC) reported that nearly one-third of all adults in the United States had untreated tooth decay and over 40 % of poor adults (20 years and older) had at least one untreated decayed tooth. One in seven adults aged 35 to 44 years had gum disease; this increased to one in every four adults aged 65 years and older (Centers for Disease Control and Prevention, 2006).

There are currently over 100 million Americans who do not have dental insurance. Many dentists do not treat individuals who are uninsured, and only one out of four treat those who have Medicaid (Wessel, Rhee, & Wolpin, 2007). Patients who are uninsured or of lower socioeconomic status have limited access to dental and oral care and, more often suffer from oral disease.

Recommendations proposed by the Surgeon General include educating non-dental health professionals about oral health and disease topics and the role professionals can play in

assuring that patients receive good oral care. Another recommendation is to increase the public's awareness and understanding of the link between oral health and overall health. As pointed out in the Surgeon General's report, medical and nursing personnel are in the unique position to incorporate oral health care prevention education and even treatments into their practice (U.S. Department of Health and Human Services, 2000b).

One of the focus areas of Healthy People 2010 relates to oral health. The United States government has established goals and objectives as part of a comprehensive set of national disease prevention and health promotion objectives in hopes of motivating action toward specific goals and objectives. The specific Healthy People goal statements that offer support to this research project involve: Increasing the proportion of local health departments and community-based health centers, including community, migrant and homeless health centers that have an oral health component; and reducing periodontal disease and untreated dental decay in adults, thus decreasing the proportion of older adults who have had all their natural teeth extracted (U.S. Department of Health and Human Services, 2000a).

Significance to Nursing

The underinsured and uninsured population face a variety of barriers when seeking access to health care services, especially when it related to oral care. With limited access to preventative oral health care, individuals tend to forego routine oral preventative care.

Many times nurse practitioners (NPs) serve as an individual's point of first contact with the health care system. Nurse practitioners focus on the patient holistically, integrating all aspects of health. They are in a position to identify and intervene with the health behavior of their patients. According to the Surgeon General and Healthy People 2010, the problem of

oral health care should be a collaborative effort involving various health care disciplines (U.S. Department of Health and Human Services, 2000b).

Studies relating to NP's education about oral health care promotion are limited. A comprehensive literature review revealed only one study that surveyed primary care nursing centers to determine to what extent nurses and NPs provide oral health screening, education, and referral services for clients, and to identify factors that discourage and encourage the integration of these services. Fellona and DeVore (1999) indicated that about half of responding nurses at the primary care centers report they almost always screen their clients for gum infections and oral lesions; however, more than half do not educate clients regarding oral hygiene or refer clients needing dental treatment. Lack of referral sources and unavailability of oral health professionals to provide on site basic oral health services were the leading factors that discouraged the integration of oral health services in the centers (Fellona & DeVore, 1999).

The American Academy of Nursing and the PEW Health Professions Commission call for a collaborative relationship between nursing and dental professionals to provide quality oral care to the elderly population who otherwise may not be getting their oral health care needs met (AAN, PEW as referenced by Colemen, 2005). Since the elderly are more likely to see a primary health care provider and not a dentist, oral health care promotion and prevention should be incorporated into the primary care visit (Colemen, 2005).

Certain aspects of oral health care have been successfully integrated into the primary care setting. Some health care organizations have pediatric physicians who provide preventive dentistry services, including dental screening, fluoride treatments, and referrals. The attempt

is to reach a larger number of children who may make a medical visit but not a dental visit (Cruz, Rozier, & Slade, 2004).

The fact that oral health is an integral part of general health has been recognized by many since there has been an increased focus on periodontal disease and probable associations between cardiovascular health, diabetes, preterm low birth weight, osteoporosis, and dental health (Kim & Amar, 2006). Evidence that diabetes is an added risk for oral disease suggests that prevention and treatment programs should be part of the standards of care for patients living with diabetes (Lalla, Park, Papapanou, & Lamster, 2004). Improved oral hygiene may assist with control of blood sugars in diabetics who suffer significantly from severe periodontal disease (Williams et al., 2008).

Problem Statement

Many underinsured and uninsured individuals and families lack access to and knowledge of basic oral health care, resulting in poor oral health. Dental disease, which can lead to serious overall health consequences, is many times preventable. It is important that individuals are educated about the importance of practicing good oral health. Nurse practitioners can offer simple suggestions such as brushing, flossing, and eating a balanced diet to help prevent tooth decay and gum disease.

Purpose

The purpose of this study was to explore how NPs promote oral health care practices related to the prevention of dental cavities and periodontal (gum) disease in their

underinsured and uninsured adult patients and, additionally, to identify factors that discourage or encourage the integration of these services.

Research Question

- 1. How do NPs promote oral health care practices among underinsured and uninsured adults?
- 2. What are factors that discourage or encourage the integration of the promotion of health care practices among underinsured and uninsured adults?

Definition of Terms

Conceptual Definitions

Nurse practitioner- a registered nurse who has completed graduate level education leading to a master's or doctorate in nursing degree and certification to practice as an advanced practice nurse and provide preventative and acute and chronic health care services to individuals of various ages and specialty areas, dependant on their degree emphasis (American College of Nurse Practitioners, n.d).

Promote-In relation to health, relates to enabling people to increase control over their health and its determinants, thereby improving their health (World Health Organization, n.d).

Oral health care practices- Activities one performs that assist in maintaining optimal oral health and preventing dental cavities and periodontal (gum) disease. These include brushing teeth twice a day with fluoride toothpaste, daily use of dental floss to remove plaque and food particles from between teeth and under the gum line, daily use of antiseptic mouthwash and discussing the importance of visiting the dentist intermittently.

Insurance- a contract in which "one party undertakes to indemnify or guarantee another against loss by a specified contingency or peril" (Merriam-Webster's Collegiate Dictionary, 2007, p 649).

Uninsured adult patient- an individual over the age of 18 seeking health care in a health clinic. An uninsured adult patient who does not have health or dental insurance coverage to assist with payment of care provided

Underinsured adult patient- an individual over the age of 18 seeking health care in a health clinic. An underinsured adult patient who has minimal health or dental insurance coverage to assist with payment of care provided.

Operational Definitions

Nurse practitioner- a registered nurse who has completed graduate level education leading to a master's or doctorate degree and certification to practice as a advanced practice nurse and provide preventative and acute health care services to underinsured or uninsured individuals.

Promote- enabling people to increase control over their oral health by offering counseling regarding maintaining good oral health care practices.

Oral health care practices- The following procedures and activities: while caring for an uninsured adult patient, at least annually, the NP inspects the oral cavity to identify gross caries, missing teeth, gingival infections, and intra oral lesions. Provides education related to the importance of: (1) brushing teeth twice a day; (2) using fluoride toothpaste; (3) daily use of dental floss to remove plaque and food particles from between teeth and under the gum

line; (4) daily use of antiseptic mouthwash; (5) the relationship between oral health and general health; and (6) discussing the importance of visiting the dentist for preventative care.

Insurance- a contract in which "one party undertakes to indemnify or guarantee another against loss by a specified contingency or peril" (Merriam-Webster's Collegiate Dictionary, 2007, p 649).

Uninsured adult patient- an individual over the age of 18 seeking health care in a health clinic. An uninsured adult patient who does not have health or dental insurance coverage to assist with payment of care provided and seeks health care by a NP at a clinic which serves the uninsured adult population.

Underinsured adult patient- individual over the age of 18 seeking health care in a health clinic. An underinsured adult patient who has minimal health or dental insurance coverage to assist with payment of care provided and seeks care by a NP at a clinic which serves the underinsured adult population.

Assumptions

- 1. Nurse practitioners are an accepted source of information when offering health care recommendations such as oral care.
- 2. Participants will answer the survey questions openly and truthfully
- 3. Patients can benefit from having a NP address their oral health care practices and offer appropriate suggestions for preventative oral health care.
- 4. Health professionals constitute a part of the interpersonal environment, which exerts influence on persons throughout their lifespan (Pender, 1996).
- 5. Individuals seek to actively regulate their own behavior (Pender, 1996).

Summary

There is little research found on whether primary health care providers are promoting oral health care practices and studies on nurses and NPs dated back to 1999 (Fellona & DeVore, 1999). One other study explored physicians and their beliefs and attitudes on oral health promotion in pediatric patients. This pediatric study related to the use of fluoride varnish application in the primary care setting (Lewis, Grossman, Domoto, & Deyo, 2000).

The current study examined the extent to which NPs serving the underinsured and uninsured adult population provided oral health care promotion and identified factors that discourage and encourage the integration of these services. Many individuals who need dental care are unable to obtain care for a variety of reasons. Studies support the Surgeon General's comments regarding oral health as being an integral part of general health. The U.S. Department of Health and Human Services, including Centers for disease control, Healthy People 2010, and the Surgeon General's Report on Oral Health, all emphasize that a call to action in promoting oral health is needed. The report from the Surgeon General, 2000, refers to the oral health care problem as a "silent epidemic" and calls for a collaborative effort to improve oral health among all Americans.

CHAPTER II

THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

Introduction

This chapter includes a description of the theoretical framework used to guide the study, including a description of the model. A review of literature follows, including statistics and studies related to oral health care access, barriers among the uninsured, and the importance of receiving preventative oral health care.

Theoretical Framework

Pender's Health Promotion Model (HPM), which is derived from expectancy-value cognitive theory and social cognitive theory, is based on assumptions that clients play an active role in their health care behavior and health maintenance (Pender, 1996). Pender's HPM was used as a conceptual basis for this study. The rationale for choosing this model is that the NP's role is to assist the patient towards various health promoting behaviors. A theoretical framework uses a framework to analyze and guide practice. Pender's HPM (Figure 1) incorporates theoretical variables, all important when it comes to motivational influences and applying interventions. The following will be considered as influential factors for this study.

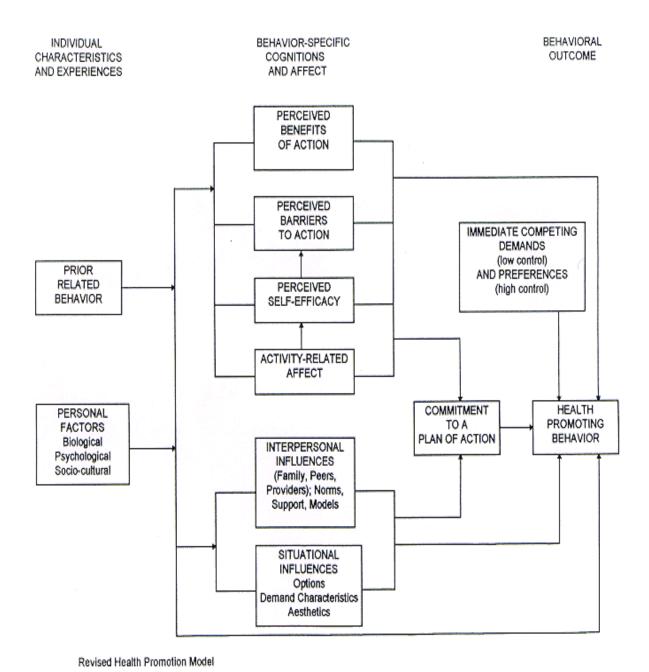


Figure 1. Pender's Health Promotion Model (Pender, 1996, p 67).

Perceived Benefits of Action: This relates to one's belief that the anticipated benefit or outcome may occur and can either directly or indirectly motivate one towards a behavior. For example, a client anticipates she will have an improved appearance by practicing increased oral hygiene (Pender, 1996).

Perceived Barriers to Action: Barriers to action in relation to health-promoting behavior can be real, such as no accessible dental care for the persons who wish to visit the dentist or financially not seeing floss as part of the daily budget. Barriers may also be imagined, such as a belief there is nothing the dentist can do for them. Perceived barriers may result in avoidance of the health promoting behavior (Pender, 1996).

Perceived Self-Efficacy: The degree to which people believe they can successfully carry out an intended behavior. For example, individuals who have been advised to brush and floss their teeth at least seven days per week, and believe they will be successful and have better health by the behavior of brushing and flossing, are more apt to be successful than if they feel they cannot successfully carry out the behavior or they feel it does not matter (Pender, 1996).

Interpersonal Influences: Relates to the influence that the beliefs, behaviors, or attitudes of other individuals such as family, health care providers, and peers, have on the client. As an example, the health care provider, along with the client's family, discusses the potential benefits of receiving or performing preventative oral care; the patient complies as she will be praised (Pender, 1996).

Situational Influences: This relates to situations affecting a particular behavior.

Situational influences in the external environment can increase or decrease commitment to or participation in health-promoting behavior (Pender, 1996). Situations that directly or indirectly influence health behavior, such as brushing teeth twice per day with fluoride toothpaste, may be positively influenced by having easy and affordable access to toothbrush and toothpaste and an area with a sink and water that one may conveniently brush their teeth.

Case Study Application

Janet is an uninsured patient of the Free Clinic who comes in for her annual physical. She is 40 years old, a divorced mother of two, with children ages 14 and 16. She is self-employed and works as a home health aide. She has no current medical problems and no medical or dental insurance. The NP discusses various preventative health issues with Janet. One of the topics focuses on Janet's oral health care practices. Janet admits she has not visited a dentist in over ten years, and since she does understand the link between oral health and general health, would like to do what she can to improve her oral health.

Cognitive-perceptual factors include Janet's goal towards better health and general well-being. She wants to improve her overall health and appearance and thinks that focusing on her oral hygiene will help her towards this goal. Although she perceives her health as good, after talking with the NP, she feels improved oral health will further enhance her general health. However, she does not feel she will reach her goal as she has limited resources and no access to dental care.

The NP works with Janet to lay out attainable goals and identify potential barriers. The NP realizes that health promotion is important and although many patients may not comply with NP suggestions, she must start by informing patients of the pros and cons. She begins by suggesting Janet brush her teeth at least twice per day with fluoride toothpaste, floss daily, and rinse her mouth with an antibacterial mouthwash nightly. Although Janet feels this might be a good start, she is discouraged as she does not know if she can afford any additional oral care products. The NP discusses the cost of generic brand dental floss, fluoride toothpaste, and mouthwash. Janet feels she can probably afford these items at this time and will look into purchasing them, so she can begin her new routine today. The NP discusses various low cost

dental clinics that Janet can access to receive a dental exam and she reminds Janet of the importance of role-modeling for her 14 and 16 year old children.

Review of Literature

The review of literature will include research on the relationship between oral care and overall health, benefits of preventative oral health care, barriers in oral health care among the uninsured, NPs and their role in health promotion including the proposed role they can play in oral health care prevention, and a critical analysis of the literature.

Since the Surgeon General's Report on Oral Health was released in 2000, several issues surrounding oral health have gained much needed recognition, consequently prompting prevention initiatives and further research relating to oral health disease. The majority of oral health diseases are preventable; unfortunately oral health disease continues to impact millions of Americans every year (Centers for Disease Control and Prevention, 2008). Oral cancer is just one of the oral health problems that affect Americans. Statistics show that oral and pharyngeal cancers are the "7th most common cancers found among white males (4th most common among black men) and the 14th most common among U.S. women" (U.S. Department of Health and Human Services, 2000a, p. 5). Although, it is recommended that individuals have screening for oral cancer annually, only a small percent of U. S. adults over 40 years old reported having had an oral cancer examination in the past year (U.S. Department of Health and Human Services, 2000a).

Relationship Between Oral Care and Overall Health

A consensus report reviewed published evidence focusing on periodontal disease and the relationship to overall health, in particular relating to cardiovascular disease and diabetes (Williams et al., 2008). This consensus group found that periodontal disease is more severe in individuals with diabetes; however, more research is needed to determine a causal relationship to diabetes and cardiovascular disease (Williams et al., 2008). Evidence suggests increased mortality, decreased control of diabetes and worsening of cardiovascular disease are caused by the inflammatory response generated by inflamed periodontal tissue (Skamagas, Breen, & LeRoith, 2008).

The results from several studies indicated that health care providers do educate patients regarding oral health and encourage better oral health (Williams et al., 2008). This practice should be part of the health promotion efforts to encourage healthy lifestyle. Raising awareness among the public and promoting simple oral health practices, such as flossing, brushing, and the importance of not smoking may decrease the risk of periodontal disease (Kim & Amar, 2006).

Benefits of Preventative Oral Health Care

There is an extensive amount of research regarding the role of fluoride in preventing dental caries and demonstrating that dental caries and periodontal diseases are infections and can be prevented (U. S. Department of Health and Human Services, 1991). According to Healthy People 2010 Oral Health report, poor oral health and untreated oral diseases have been shown to have a significant impact on one's overall quality of life. It is suggested that "increased use of dental sealants, tooth brushing with fluoridated toothpaste, community

water fluoridation, and sound dietary practices are needed to reduce tooth decay" (U.S. Department of Health and Human Services, 2000a, p. 4).

An oral health care practice that may detect oral health problems and can be easily performed in any setting, is direct inspection and palpation of the oral cavity. This is the most commonly recommended method of screening for oral cancer and should be implemented as part of preventative health measures (U.S. Department of Health and Human Services, 2000a). Statistics show that "oral and pharyngeal cancers are the 7th most common cancers found among white males (4th most common among black men) and the 14th most common among U.S. women" and "only 13 percent of U.S. adults aged 40 years or older reported having had an oral cancer examination in the past year, which is the recommended interval" (U.S. Department of Health and Human Services, 2000b, p. 5). Primary health care providers have an opportunity to influence health behaviors through health promotion and screening, to increase the chance of reducing risky behavior, and to encourage the early detection of malignant and pre-malignant lesions, thus improving prognosis (Patton, Ashe, Elter, Southerland, & Strauss, 2006).

Fluoride has substantial benefits in the prevention of tooth decay (Centers for Disease Control and Prevention, 2008). The fluoridation of water provides the greatest benefit to those who are of lower socioeconomic background who cannot afford preventive and restorative dentistry (U. S. Department of Health and Human Services, 1991). Still, over one third of the U.S. population (100 million people) has no access to water that contains enough fluoride to protect their teeth (Centers for Disease Control and Prevention, 2008).

Kay and Locker (1998) conducted a study to examine the quality of, and to assess the effectiveness of, oral health promotion. The researchers found that dental caries and

periodontal disease can be controlled by regular tooth brushing with fluoride toothpaste.

Oral health promotion that incorporates the use of fluoride is effective for reducing caries.

Karikoski, Ilanne-Parikka, and Murtomaa (2003) conducted a longitudinal study to examine the promotion of periodontal health among patients with diabetes. Findings from this study indicated it was possible to increase preventative oral health behaviors and periodontal health among patients with diabetes by promoting regular oral health habits through existing health-care services. Limitations of this study include participant's perception of ideal self care and bias caused by participant's non-response and incorrect answers on the self-report.

As technology advances, the two main oral diseases, dental caries and periodontal disease, are in decline. However, the burden of oral disease continues to grow for those with low income, the uninsured, children, and elderly (Spielman, Fulmer, Eisenberg, & Alfano, 2005). According to the U.S. Department of Health and Human Services (2008), a major barrier to further improving the nation's oral health is the limited access to prevention and treatment services for certain populations. For every adult without medical insurance, there are three without dental insurance (National Institute of Dental and Craniofacial Research, 2002). Those who are below the poverty level are far less likely to visit the dentist than those with an income above poverty level (National Institute of Dental and Craniofacial Research, 2002).

Integrating Oral Health Care Into the Primary Care Setting

In response to the crisis in oral health care, agencies have contemplated the concept of integrating aspects of oral health care into primary health care services. Several organizations recommend that preventative oral health care services be part of primary care. Spielman et al. (2005) conducted a study to compare the core competencies of nurse practitioner and dental education program and found the core competencies among nursing and dentistry are very similar in their objectives. Some of the major overlaps found between nursing and dentistry include: application of ethical principles in interactions with patients; empathetic and compassionate care for patients; application of principles of jurisprudence; critical thinking and lifelong learning, use of evidence-based literature; use of referral for the benefit of patients; using information systems to improve oneself, practice, and patient care; obtaining accurate information from patients to formulate diagnosis and treatment; performing good physical examination; obtaining and interpreting diagnostic information; using scientific data from the literature for risk assessment; recognizing normal and abnormal variations of clinical findings; developing treatment alternatives and strategies and; recognizing and providing initial treatment for emergencies and systemic complications. (Spielman et al., 2005).

Oral Health Promotion Strategies and the Effect on Oral Health

Axelsson and Lindhe (1981) conducted a study on preventative treatment. They provided instruction and practice in oral hygiene techniques, and meticulous prophylaxis. The findings of this study indicated that use of a preventative program encouraging individuals to

implement proper oral hygiene habits may resolve gingivitis and prevent progression of periodontal disease and caries.

Another longitudinal study by Axelsson, Nystrom, and Lindhe (2004) reported on the 30-year outcome of preventive dental treatment in a group of individuals who participated in a preventive dental treatment. The objective of this study was to monitor the incidence of tooth loss, caries and attachment loss during a 30-year period. The subjects were routinely educated in self-diagnosis and the importance of maintaining a high standard of oral hygiene including risks and benefits of good oral hygiene. They were instructed on self-care that focused on proper plaque control measures, including the use of toothbrushes and interdental cleaning devices. Results demonstrate the incidence of caries and periodontal disease, as well as tooth mortality, in this sample was very low.

Slade, Rozier, Zeldin, and Margolis (2007) evaluated the effectiveness of various forms of continuing medical education (CME) on provision of preventive dental services. There findings showed that a high proportion of medical practices are capable of adopting preventive dental services within a one year period, regardless of the methods used to train primary health care providers, and physicians reported willingness to provide preventive dental care. This allows for a substantial expansion in availability of preventive dental services beyond the population coverage currently achieved through dental offices. In fact, there have been studies testing various approaches related to integration of primary care and oral health care services. One approach, created under the 'stewardship' of the World Health Organization (WHO), focused on utilizing dental hygienists in the primary health care setting to provide more accessibility and visibility to oral health care services. Provider hygienists

allow for the expansion of oral disease prevention and health promotion knowledge and practices in communities (Monajem, 2006).

Clemmens and Kerr (2008) discussed oral health and its relationship to health problems in women, focusing on nurses and the role they play in promoting oral health in women. The authors outlined several ideas as to ways in which nurses can incorporate oral health into their practice, thus helping to improve oral health and decrease problems associated with poor oral health.

Stevens, Iida, and Ingersoll (2007) discussed using a team approach to the implementation of an oral health program in a prenatal practice. The program was started because research suggested that maintaining good oral health during pregnancy lowers the risk of poor birth outcomes. This program, called Rochester Adolescent Maternity Program (RAMP), utilized a community approach to improving access to oral health services for underserved pregnant and parenting women. The RAMP nursing staff initially assessed the patient's oral health to determine if there was a need for a dental referral. According to the established guidelines, if the patient is found to be in need of dental care, she will be referred to a dentist associated with the program.

There are health care organizations utilizing pediatricians to promote certain aspects of oral health. Lewis, Grossman, Domoto, and Deyo (2000) conducted a study to assess pediatricians' knowledge, attitudes, and professional experience regarding oral health and examined their willingness to incorporate fluoride varnish into their practice. The study found that pediatricians feel they have an important role in oral health promotion and are already providing anticipatory guidance on oral health to their pediatric patients. Another study outlines the role pediatricians can play in prevention and promotion of oral health care.

In particular, pediatricians can prescribe fluoride or refer children when indicated, and offer counseling to parents regarding plaque control, diet, and tooth decay (Herrmann & Roberts, 1987).

Summary

Since preventative oral health care is a health promotion activity, Pender's Health Promotion Model was the theoretical framework for this study. Research studies have shown that oral health is a vital component of one's overall health and that the uninsured populations have many unmet needs relating to oral health. There is substantial evidence that oral disease, such as dental caries and periodontal disease, is preventable. Individuals, who implement recommended oral hygiene practices, such as brushing teeth, using fluoride and flossing daily, experience a decreased incidence in oral health problems.

More time and effort must be devoted to oral health care promotion in the uninsured adult population. Nurse practitioners are prime candidates to implement preventative oral health care in their practices and to assist the uninsured population with their preventative oral health care needs which they may not get otherwise.

This study explored current practices of NPs in relation to oral health care in the underinsured and uninsured adult population. The study questioned how and if NPs currently promote oral health care practices related to the prevention of dental cavities and periodontal (gum) disease in their uninsured adult patients, and additionally, identified factors that discourage and encourage the integration of these services

CHAPTER III

METHODOLOGY

The purpose of this study was to explore how NPs who serve the underinsured and uninsured adult population in the Midwest promote oral health care practices among their patients. This included identification of factors that discourage and encourage the integration of these services. In this chapter the researcher discusses the research design, the sample, the data collection, and how data analysis was done.

Study Design

This study used a qualitative descriptive design, obtaining data related to the phenomena under study. Qualitative research involves the investigation of phenomena to gain a deeper understanding, in a holistic fashion, through the collection of rich narrative materials (Polit & Beck, 2008). Qualitative research is the appropriate choice when the topic needs to have further exploration. This approach was chosen because of the limited amount of information about NPs and their promotion of oral health care practices. The research used an open-ended questionnaire to gain information regarding NPs' practices in the area of promotion of oral health care practices and factors they felt discourage and encourage the integration of these services.

Population, Sample, and Setting

The target population for this study was registered nurses who have completed graduate level education leading to a master's degree and certification to practice as a NP. The sample

was purposive, including NPs who provide preventative and acute health care services and are practicing in several clinics serving the underinsured and uninsured adult population in the Midwest. A convenience sample of nineteen NPs was attained. Convenience sampling utilizes the most readily available persons as participants in a study (Polit & Beck, 2008).

Data Collection Instruments

Qualitative research methodology, utilizing self-report to extrapolate data from the participating NPs, was utilized to answer the research question. An information sheet (Appendix A); and two instruments, a questionnaire (Appendix B); and a demographic questionnaire (Appendix C) were used in this study. Both instruments were developed by the investigator in an attempt to obtain the desired information. All participants in the study were asked to provide a written response to a series of open-ended questions.

A self-report was appropriate for this study because there is little research related to NPs and the promotion of oral health care, and no reliable or valid instrument was found. Questionnaires allow for the collection of subjective data through the use of open-ended questions. Types of information contained on the demographic background profile included: gender, age, professional education, position, years of employment with current position, current involvement with underinsured and uninsured adult patients in the clinic, amount of time working with the underinsured and uninsured population, presence of preventative dental care services offered at the clinic, and patient access to preventative dental care services.

Data Collection Procedures

Prior to beginning data collection, the researcher obtained permission from the UW Oshkosh Institutional Review Board (IRB). Participants were informed of their rights regarding participation in this study via an information letter enclosed with the mailed questionnaire (Appendix A). Participation was voluntary. Anonymity and confidentiality were maintained by using numbers to identify questionnaires and asking participants not to sign their names. The researcher and chair directly involved in compiling data had access to the completed questionnaires.

The phone numbers and addresses of clinics serving the underinsured and uninsured populations in Illinois, Indiana, Wisconsin, and Minnesota, were accessed from a list of agencies available on the internet. Clinics were called by the researcher and information regarding the clinic use of a NP to care for adult underinsured or uninsured patient was obtained, as well as the names of NPs.

The researcher mailed a questionnaire addressed to the NP at the clinic address. The questionnaire consisted of questions and information regarding their rights related to participation in this study and a stamped, self-addressed envelope (SASE). Approximately ten to fifteen minutes was necessary for the participant to complete the questionnaire. Participants were asked to mail the completed questionnaire, with no identifying data on it, back to the researcher. To increase response rate, a reminder post card was mailed to individuals two weeks after the first mailing.

Data Analysis Procedures

The researcher used narrative analysis of answers to identify categories and connections from the narrative content.

Limitations

- 1. Due to the use of a small convenience sample, generalizability is limited.
- 2. There is a possibility of data being influenced by the researcher during data analysis, however the researcher took precautions to assure data was interpreted accurately.
- 3. Participants could have responded in a way that favors their facility, thus creating a bias.

Summary

A descriptive design was used to explore and describe NPs' practices related to their promotion of oral health care with their underinsured and uninsured adult patients. After gaining permission from the UW Oshkosh Institutional Review Board (IRB), the researcher contacted the potential participants from a list of clinics supplied on the internet and names of NPs gathered by calling these clinics. Sample size was thirty-four. Data was collected via a mailed questionnaire. Analysis used was narrative analysis.

CHAPTER IV

FINDINGS AND DISCUSSION

The purpose of this study was to explore how nurse practitioners promote oral health care in their underinsured and uninsured adult patients, as well as to identify factors that both discourage and encourage the integration of oral health promotion. This chapter relates the findings including demographic characteristics of the sample.

Description and the Sample

The convenience sample consisted of 34 nurse practitioners who provide care to the underinsured or uninsured population from the Midwest, including Illinois, Indiana, Minnesota, and Wisconsin. Twenty-two out of 34 questionnaires sent were returned (64% response rate). Nineteen questionnaires were used for the final analysis or 55% of those sent. Three of the returned questionnaires did not meet the criteria and were eliminated: one individual was not an NP, one individual did not answer the questionnaire as she no longer practiced with the population, and one worked with pediatric patients.

A demographic description of the sample is listed in Tables 1 through 5. All of the participants answered that they care for the uninsured and underinsured population. Thirteen of the participants listed their specialty area working with the underinsured or uninsured population as family nurse practitioners (FNPs), four listed themselves as Adult Nurse Practitioners (ANPs), and two listed themselves as Prenatal Nurse Practitioners. 18 of the 19 were female and the mean age was 47 years old. Sixty seven percent had worked with the underinsured and uninsured for 0-10 years; 78% saw from 3-15 patients per day.

Table 1

NP Specialty

Specialty (n=19)	number	percentage
FNP	13	68%
APN	4	21%
Prenatal	2	11%

Table 2

NP Education

Highest Education (n=19)	number	percentage
Master's degree	16	84%
Post Master's work	1	05%
PhD	2	11%

Table 3

Years of Working With Population

Years (n=19)	number	percentage
0-5	10	53%
6-10	3	15%
11-15	2	11%
16-30	4	21%

Table 4

Number of Patients Seen per day

Patients seen (n=19)	number	percentage
3-10	6	32%
11-15	9	47%
16-25	1	05%
26-40	3	16%

Table 5 *Ages and Genders*

Age years (n=19)	number	percentage
25-35	3	16%
36-45	5	26%
46-55	6	32%
56-68	5	26%
Male	1	05%
Female	18	95%

Findings Related to Promotion of Oral Health Care

Exploring results involved reviewing the data several times while making comparisons and connections. The majority of respondents felt that oral health care is very important to one's overall health and they understood there is a significant connection between the two. However, throughout the data, respondents reported numerous factors that discourage the integration of oral health care services for the uninsured and underinsured population.

Limiting factors most commonly mentioned related to lack of access to oral health care services, lack of time during an office visit, other patient and provider priorities, and patient's inability to pay associated costs. Sixty-three percent of respondents felt they needed more knowledge about how to screen for and promote good oral hygiene among the underinsured and uninsured patients.

Research Question One:

1. How do NPs promote oral health care practices among underinsured and uninsured adults?

NPs had a variety of answers regarding promotion of oral health care with the underinsured and uninsured population. Seventeen of the 19 of respondents replied that they do promote oral health care practices in some manner. NPs who responded positively (89%) fall into three main categories, those who: (a) provide toothpaste and toothbrush and/or discuss brushing and flossing teeth and smoking cessation (n=7), (b) discuss oral health only if it is a primary chief complaint (n= 4), and (c) refer patients to a dental clinic (n= 6). Two NPs report they do not provide any oral health care promotion.

Comments from NPs who stated they promote oral health care practices were as follows: "I recommend annual (minimum) dental visits, provide referrals if needed, encourage flossing, smoking cessation, twice daily brushing, and decreased soda intake"; "I advise smoking cessation, educate regarding dental caries, and encourage them to seek dental care"; and "Education-if unable to afford through the Free Clinic we will provide from donated hygiene care products".

Four respondents who promoted oral health care only if there is a specific oral issue concerning the patient, responded as follows: "I used to have sample toothpaste that I handed

out to all patients until the supply ran out. Daily brushing/flossing/use of mouthwash is discussed when applicable to patient presenting concern"; "We usually treat acute issues such as dental abscesses and there are minimal health promotion practices"; "Oral health care is usually not discussed with adults unless that is their chief complaint"; and finally, "If they come in for oral issues, we discuss brushing, flossing and appointments. Otherwise, it's not discussed much". Six NPs responded that they refer patients to a dental clinic as a form of oral heath care promotion.

Two respondents wrote that they do not promote oral health care practices: "Although it's very noticeable that my patients have poor teeth and many infections, we tend to spend more time on the diabetes and cardiac issues"; and "We provide care for uninsured adults but do not promote oral health care".

A current question from this survey asked NPs if they address the following specific oral hygiene practices with their underinsured and uninsured adult patients: (1) daily teeth brushing (2) daily flossing (3) use of mouthwash (4) performance of oral cancer screenings, and finally, (5) tobacco use. Table 6 delineates these practices.

Table 6
Specific Oral Practices Addressed With Patients (n=19).

Oral care practice	Number responding	percentage
Daily teeth brushing	10	52%
Daily flossing	7	36%
Use of mouthwash	6	31%
Tobacco use/cessation	19	100%
Oral cancer screenings	8	42%

Support of Oral Health Care Promotion

Kay and Locker (1998) found that dental caries and periodontal disease can be controlled by regular tooth brushing with fluoride toothpaste. "Increased use of dental sealants, tooth brushing with fluoridated toothpaste, community water fluoridation, and sound dietary practices are needed to reduce tooth decay" (U.S. Department of Health and Human Services, 2000a, p. 4). Results from this study found 52% of respondents discussed daily teeth brushing with fluoride toothpaste

Direct inspection and palpation of the oral cavity is an oral health care practice that may detect oral health problem and can be easily performed in any setting. This is the most commonly recommended method of screening for oral cancer and should be implemented as part of preventative health measures (U.S. Department of Health and Human Services, 2000). Results from this study found that 42% of the surveyed NPs performed oral cancer screenings and 100% discussed tobacco use.

Research Question Two:

2. What are factors that discourage or encourage the integration of the promotion of health care practices among underinsured and uninsured adults?

NPs were asked the following two questions: (a) List things that keep you from integrating oral health promotion when caring for an underinsured or uninsured patient, and (b) What encourages you to incorporate oral health promotion into your practice?

NPs responded to both of these questions with multiple answers.

When asked to list things that keep NPs from integrating oral health promotion when caring for an underinsured or uninsured patient, four categories emerged.

Responses, included comments such as: "lack of available dental services for the underinsured"; "decreased patient interest" or "multiple more pressing issues"; "length of patient visit is too short to deal with every patient problem"; and "dental care not affordable"

Table 7

Factors Keeping NPs From Integrating Oral Health Promotion

Factors (n=19)	number	percentage
Lack of access	9	47%
Patient and provider priorities	9	47%
Lack of time and resources	6	32%
Cost	6	32%

A major barrier to further improving the nation's oral health is the limited access to prevention and treatment services for certain populations (National Institute of Dental and Craniofacial Research, 2002). Fellona and DeVore (1999) concluded that almost half of the responding nurses at primary care nursing centers "usually" screen their clients for gum infections (49%) and oral lesions (48%). The data is similar to examining NP's promotion of oral health care, which found that 42% perform oral cancer screenings.

Fellona and DeVore (1999) found that lack of referral sources (64%) and unavailability of oral health professionals to provide on site basic oral health services (63%) were the leading factors that discourage the integration of oral health services in the centers, findings that concur with the current study, where results found that lack of access to oral health care professionals and limited time are factors that keep NPs from promoting oral health care.

When asked what encourages NPs to incorporate oral health promotion into practice, most responses were in two main categories: (a) The relationship between general health and oral health, and (b) patient oral health complaints/concerns (Table 8). Some of the specific responses to this question included the following: "Dental health affects blood sugars, pregnancy outcome, and general comfort"; "Poor oral health leads to poor nutrition, which affects patients in their overall attempt to stay healthy"; "Because dental disease can reflect general health maintenance and influence disease processes, good oral hygiene can be important to self-esteem"; "Healthy teeth are as important to self-esteem as well as to general health"; "You can start to talk with the patient about the dental issues as they affect the rest of their health care status" and; "Periodontal disease and pain is bad for cardiac conditions".

Table 8
Factors That Encourage Integration of Oral Health Promotion

Factors (n=19)	number	percentage
General health and oral health connection	9	64%
Oral health complaints/concerns	5	35%

Evidence that diabetes is an added risk for oral disease suggests that prevention and treatment programs should be part of the standards of care for patients living with diabetes (Lalla, Park, Papapanou, & Lamster, 2004). Improved oral hygiene may assist with control of blood sugars in diabetics who suffer significantly from severe periodontal disease (Williams et al., 2008).

Another common response to this question was that oral health is only discussed if there is a patient complaint or concern involving their oral health: "I tend not to discuss oral health unless it is a primary issue because we don't have services for preventative dental service in our area for the uninsured" and "Oral health is only discussed with people with dental pain, 'rotten' teeth, no teeth and no dentures".

Fellona and Devore found that the understanding of the benefits of oral health (73%) was a leading factor that encouraged the integration of oral health services into primary care nursing centers. This study found similar results; NP's awareness of the connection between oral health and general health was a leading factor that encouraged them to promote oral health care in their practice.

Summary

The majority of respondents were aware that there is an important connection between oral health and general health; this was a main reason for NPs incorporating oral health care promotion education for their patients. There are many barriers the underinsured and uninsured adult populations face that make it difficult for NPs to help them with their oral health care needs. Mentioned throughout the data are lack of access, lack of time, patient and provider priorities, and cost. Literature also supports the ongoing disparity with this population.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to explore how nurse practitioners promote oral health care in their underinsured and uninsured adult patients, as well as to identify factors that discourage and encourage the integration of oral health promotion. This chapter summarizes the results of this study and makes conclusions based on the data, reviewing the findings in relation to related research. The researcher discusses limitations of the study and recommendations for future research, as well as implications for nursing practice.

Summary and Conclusions

The convenience sample was 34 nurse practitioners who provide care to the underinsured or uninsured population in the Midwest. Nineteen questionnaires were used for the final analysis or 55% of those sent. Seventeen of the 19 of respondents replied that they do promote oral health care practices in some manner. NPs who responded positively (89%) fall into three main categories, those who: (a) provide toothpaste and toothbrush and/or discuss brushing and flossing teeth and smoking cessation (n=7), (b) discuss oral health only if it is a primary chief complaint (n=4), and (c) refer patients to a dental clinic (n=6).

The majority of respondents felt that oral health care is very important to one's overall health and they understood there is a significant connection between the two; this was a main reason NPs try to incorporate the promotion of oral health care practices. However, throughout the data, respondents reported numerous factors that discouraged the integration

of oral health care services for the uninsured and underinsured population. Limiting factors most commonly mentioned related to the delivery of oral health promotion were: lack of access to oral health care services, lack of time during an office visit, other patient and provider priorities, and patient's inability to pay associated costs. Sixty-three percent of respondents felt they needed more knowledge about how to screen for and promote good oral hygiene among the underinsured and uninsured patients.

Relevance of Theoretical Framework

Pender's Health Promotion Model (1996) was used as a conceptual basis for this study. The NP's role is to assist the patient towards various health promoting behaviors. A theoretical framework helps the researcher analyze and guide practice. Pender's HPM incorporates theoretical variables, all important when it comes to motivational influences and applying interventions.

Recommendations for Nursing Practice and Education

This study suggests NPs think there are significant unmet needs and barriers when it comes to oral health care and the underinsured and uninsured adult population. Nurse practitioners in this study were aware that there is a connection between oral health and general health and well being; however, they felt they were severely restricted when it comes to promoting oral health care practices. In large part this disparity is due to limited access, lack of resources, and patient's narrow understanding and awareness of the importance of oral health. Respondents also felt they need more education surrounding oral health care promotion.

Patients, providers, health care educators, and health care organizations need to accept oral health care as a significant component of general health. New collaborative efforts are needed to standardize and integrate the promotion and screening of oral health care into primary health care visits for the uninsured and underinsured population.

More time should be devoted to educating nurses and primary health care providers in oral health promotion, prevention, and basic procedures. Schools of nursing, both undergraduate and graduate, must recognize that oral health care is just as important a component of general health as any other body system. There should be an oral health component taught as part of the core nursing and nurse practitioner curriculum. This can be achieved fairly easily by utilizing either a volunteer dentist or dental hygienist to lecture as well as to demonstrate simple basic oral health procedures that can be implemented by NPs. Another option is to team up with dental health professionals to assist in educating nondental health care providers, such as nursing instructors, and having them responsible for teaching this portion of the curriculum.

Health care organizations and the providers they employ need to consider oral health care an essential part of a patient's health maintenance and chronic disease management, and incorporate as part of the routine health maintenance plan. Awareness can be raised among health care organizations, patients and providers by distributing pertinent research articles to providers; patient friendly brochures and educational materials surrounding oral health care to clients; and holding educational seminars and meetings surrounding oral health care. Other ideas include hanging educational posters in patient rooms. Donated supplies, such as toothbrushes, toothpaste, dental floss and mouthwash can be given out during patient appointments.

Nurse practitioners can assist patients in improving their oral health behaviors by educating them to include daily oral hygiene practices and other lifestyle behaviors into their routine. In addition to educating the patients, screening them for oral cancer and removing known barriers between people and oral health services is crucial.

Various other approaches relating to the integration of primary care and oral health care services should be explored. Specific recommendations include encouraging collaboration between nursing and dental health professionals. Utilizing dental hygienists in the primary health care setting might provide more accessibility and allow for the expansion of oral disease prevention and health promotion knowledge. Organizing a group of volunteer dental hygienists to assist in providing care to the underinsured or uninsured adult population would be a good start. Organizations might choose to employ dental hygienists as part of physician services or implement a volunteer program bringing in volunteer dental hygienists as needed. An additional option might be educating non-dental health care providers in a dental hygienist role by offering structured oral health care program to interested nurses, NPs, or medical assistants. Perhaps nursing/medical assistant programs can incorporate a dental hygiene component or offer certification of some sort for interested students.

For any of the above changes to take place, funding is essential. Obtaining volunteers to assist with raising money and supplies for the clinics is important. A few ideas include holding an annual fundraiser for donations; asking for private donations from the dental community or local businesses; asking for donations of supplies from oral hygiene companies; setting up a donation box in area businesses; and establishing a volunteer run foundation or organization focusing on oral health care for the underinsured and uninsured adult population. Schools of nursing could establish and sponsor a student managed oral

health care focus group. Each semester the school of nursing would ask students to volunteer in maintaining the group. Responsibilities might include collaborating and maintaining relationships with dental health care providers, organizing fund raisers, obtaining and distributing oral health care supplies to clinics caring for underinsured and uninsured adult populations, and assuring there are up to date brochures and educational materials distributed to patients and clinics.

Limitations

A few limitations were identified in this study. The small sample size limits generalizability; therefore, this may not be representative of all nurse practitioners practicing with this population. Surveys were mailed to participants; there was no opportunity for participants to clarify questions or for the researcher to clarify answers. This poses a potential for error in interpretation by respondents and the analysis of answers by the researcher. The sample may have been a limitation as only NPs serving the underinsured and uninsured population were surveyed. This particular group may have different behaviors when it comes to health promotion.

Research Recommendations

Based upon this study, suggestions for further research include:

Conduct a large quantitative study examining a variety of primary health care
providers to examine their promotion of oral health care practices among their
patients.

- 2. Examine to what extent providing oral health care promotion and education to patients actually influences their oral health care practices.
- Explore whether providing NPs with a structured education curriculum surrounding
 oral health care and performing simple dental care, will influence NPs oral health care
 promotion practices.
- 4. Implement a pilot study which incorporates a dental exam room within a clinic that serves the uninsured and underinsured adult population, this includes obtaining funding, donations, and finding willing volunteers to staff the clinic.

Summary

Limitations and recommendations for future research, as well as implications for nursing practice, are discussed. Through this research, oral health care promotion and the role of the NP can be brought to the forefront. Hopefully, NPs will gain knowledge surrounding oral health care and work towards educating themselves and their patients about to oral health care practices. This research also targets what NPs perceive as barriers to the delivery of oral health care promotion; they can begin working towards removing these obstacles and increasing their oral health care promotion practices.

This study raises awareness as to what can be done to help plan and implement more effective and efficient methods for including basic oral health care promotion into primary care. One suggestion offered is utilizing dental hygienists in the primary health care setting to provide more accessibility and visibility to oral health care services. Another is to devote more time to educating nurses and primary health care providers in oral health promotion, prevention, and basic procedures. Raising awareness among health care organizations and the

providers to assure oral health care is treated as a patient's health maintenance is another recommendation, as is general fundraising. Finally, utilizing volunteers and encouraging donations of oral health care products will help to meet the oral health needs of the underinsured and uninsured population.

APPENDIX A INFORMATIONAL LETTER

APPENDIX A

INFORMATIONAL LETTER

Dear Nurse Practitioner:

I am a Master's candidate at the University of Wisconsin Oshkosh. I am conducting a study on oral health promotion among the underinsured and uninsured adult population. The information gathered for this study may be beneficial for nursing by demonstrating oral health care practices for underinsured and uninsured adult patients.

Participation is voluntary and there is no penalty if you choose not to participate. There are no known risks associated with this study. If you are willing to participate, please complete the enclosed questionnaires and return to me. A self-addressed, stamped envelope is included for your convenience. It will take approximately ten minutes to complete the questionnaires. Your response and any comments will be treated with confidentiality.

In order to maintain anonymity, **please do not sign the questionnaires**. Please return the completed questionnaire after completing it. If you are interested in a copy of results or have any questions, you may contact me at:

Vicki Ray University of Wisconsin Oshkosh College of Nursing Graduate Program 800 Algoma Blvd Oshkosh, WI 54901 8660 920-424-2106

Please note, after two weeks, a reminder post card will be mailed to all individuals who were sent the original questionnaire. If you have already returned the completed questionnaire, disregard the reminder card.

I appreciate your time and willingness to help me with this study. If you have any complaints about your treatment as a participant of this study you may contact the UW Oshkosh Institutional Review Board (IRB):

RB, Chair For the Protection of Human Participants c/o Grants Office University of Oshkosh Oshkosh, WI. 54901 920-424-4515

Sincerely,

Vicki Ray, RN, BSN UWO FNP Student 920-424-2106

APPENDIX B

QUESTIONNAIRE

APPENDIX B QUESTIONNAIRE

Dear Participant:

Thank you for your willingness to participate in this research project. Please return the completed forms in the enclosed self-addressed, stamped envelope. Please answer the questions for the underinsured and uninsured patients you care for.

Sincerely,
Vicki Ray, RN, BSN

1. If you care for underinsured and uninsured adults, how do you promote oral health care practices among them?

2. What encourages you to incorporate oral health promotion into your practice?

3. List things that keep you from integrating oral health promotion when caring for an underinsured or uninsured patient?

4. What is your understanding of the relationship between oral health and general health?

5. What do you feel is the biggest problem relating to the oral health of the underinsured or uninsured patients			
you care for?			
6. In your opinion, what keeps undering	sured and uninsured clients from practicing good oral health?		
-			
7. Do you address the following with yo	our underinsured and uninsured adult patients?		
Daily teeth brushing with fluoride?	Yes or No		
Daily flossing?	Yes or No		
Use of mouthwash?	Yes or No		
Oral cancer screenings?	Yes or No		
Tobacco use?	Yes or No		
the underinsured and uninsured patie	edge about how to screen for and promote good oral hygiene among ents you care for? If so, what would be most helpful ures, dental hygienist visit, in-service, research articles, other)?		
9. Do you personally:			
Floss daily?	Yes or No		
Brush twice per day?	Yes or No		
Use mouthwash?	Yes or No		
Smoke or chew tobacco?	Yes or No		
Visit your dentist at least annually?	Yes or No		
10. Any other comments?			

APPENDIX C DEMOGRAPHIC PROFILE

APPENDIX C DEMOGRAPHIC PROFILE

1.	Do you currently treat underinsured or uninsured adult patients?
2.	What is your current NP role or specialty area working with the underinsured or uninsured?
3.	How long have you been practicing in this position?
4.	How long have you been working with the underinsured or uninsured population?
5.	Approximately how many underinsured or uninsured adults do you care for per day?
6.	What is your ethnicity?
7.	Are you Male or Female?
8.	How old are you?
9.	Highest level of education completed?
10.	Does your patient population have access to preventative dental care? If yes, please explain what services are offered?

APPENDIX D

University of Wisconsin IRB Approval Letter



October 23, 2008

Ms. Vicki Ray 3621 S. Kernan Ave Appleton, WI 54915

Dear Ms. Ray:

On behalf of the UW Oshkosh Institutional Review Board for Protection of Human Participants (IRB), I am pleased to inform you that your application has been approved for the following research: Nurse Practitioners Promotion of Oral Health Care Practices Among Underinsured and Uninsured Adults.

Your research protocol has been classified as EXEMPT. This means you will not be required to obtain signed consent. However, unless your research involves **only** the collection or study of existing data, documents, or records, you must provide each participant with a summary of your research that contains all of the elements of an Informed Consent document, as described in the IRB application material. Permitting the participant, or parent/legal representative, to make a fully informed decision to participate in a research activity avoids potentially inequitable or coercive conditions of human participation and assures the voluntary nature of participant involvement.

Please note that it is the principal investigator's responsibility to promptly report to the IRB Committee any changes in the research project, whether these changes occur prior to undertaking, or during the research. In addition, if harm or discomfort to anyone becomes apparent during the research, the principal investigator must contact the IRB Committee Chairperson. Harm or discomfort includes, but is not limited to, adverse reactions to psychology experiments, biologics, radioisotopes, labeled drugs, or to medical or other devices used. Please contact me if you have any questions (PH# 920/424-7172 or e-mail: rauscher@uwosh.edu).

Sincerely

Dr. Frances Rausche

Dr. Franco Rauscher

IRB Chair

cc: Roxana Huebscher 1454

REFERENCES

- American College of Nurse Practitioners (n.d.). Frequently asked questions about nurse practitioners: who are nurse practitioners. Retrieved July 17, 2008, from http://www.acnpweb.org/files/public/FAQ_about_NPs_May06.pdf.
- Axelsson, P., & Lindhe, J. (1981, June). Effect of controlled oral hygiene procedures on caries and periodontal disease in adults. Results after 6 years. [Abstract]. *Journal of clinical periodontology*, 8(3), 239-248.
- Axelsson, P., Nystrom, B., & Lindhe, J. (2004, September). The long-term effect of a plaque control program on tooth mortality, caries and periodontal disease in adults. Results after 30 years of maintenance [Abstract]. *Journal of Clinical Periodontology*, 31(9), 749-757.
- Centers for Disease Control and Prevention (2006). *Division of oral health: oral health for adults*. Retrieved July 18, 2008, from http://www.cdc.gov/oralHealth/publications/factsheets/adult.htm.
- Centers for Disease Control and Prevention (2008). *Oral health: preventing cavities, gum disease, and tooth loss*. Retrieved July 20, 2008, from http://www.cdc.gov/nccdphp/publications/AAG/doh.htm.
- Clemmens, D. A., & Kerr, A. R. (2008). Improving oral health in women: Nurses' call to action. *MCN The American Journal of Maternal Child Nursing*, 33, 10-14.
- Colemen, P. (2005, January-February). Opportunities for nursing-dental collaboration: addressing oral health needs among the elderly. *Nursing Outlook*, *53*, 33-9.

- Cruz, G., Rozier, R., & Slade, G. (2004, November). Dental screening and referral of young children by pediatric primary car providers. *Pediatrics*, *114*, 642-652.
- Fellona, M. O., & DeVore, L. R. (1999, Spring). Oral health services in primary care nursing centers: Opportunities for dental hygiene and nursing collaboration. *Journal of Dental Hygiene*, 73, 69-77.
- Hayes, E. (2007, August). Nurse practitioners and managed care: patient satisfaction and intention to adhere to nurse practitioner plan of care [Abstract]. *Journal of the American Academy of Nurse Practitioners*, 19(8), 418-26.
- Herrmann, H. J., & Roberts, M. W. (1987, July 1987). Preventive dental care: The role of the pediatrician. *Pediatrics*, 80(1), 107-110.
- Karikoski, A., Ilanne-Parikka, P., & Murtomaa, H. (2003). Oral health care promotion among adults with diabetes in Finland. *Community Dentistry and Oral Epidemiology*, *31*, 447-453.
- Kay, E., & Locker, D. (1998, September). A systematic review of the effectiveness of health promotion aimed at improving oral health. *Community Dental health*, *15*, 132-144.
- Kim, J., & Amar, S. (2006). Periodontal disease and systemic conditions: a bidirectional relationship. *Odontology*, 94(1), 10-21.
- Lalla, E., Park, D., Papapanou, P., & Lamster, I. (2004, May). Oral disease burden in Northern Manhattan patients with diabetes mellitus. *American Journal of Public Health*, 94(), 755-758.
- Lewis, C. W., Grossman, D. C., Domoto, P. K., & Deyo, R. A. (2000, December). The role of the pediatrician in the oral health of children: A national survey. *Pediatrics*,

- 106(6), 1-7. Retrieved July 20, 2008, from http://www.pediatrics.org/cgi/content/full/106/6/e84.
- Lindberg, S. (1987, May). Adult preventive health screening: 1987 update [Abstract]. *The Nurse Practitioner*, *12*(5), 19-22, 25-30, 32.
- Merriam-Webster's Collegiate Dictionary (11th ed.). (2007). Springfield, MA: Merriam-Webster.
- Monajem, S. (2006). Integration of oral health into primary health care: the role of dental hygienists and the WHO stewardship. *Int J Dent Hygiene*, *4*, 47-51.
- National Institute of Dental and Craniofacial Research (2002). *The national institute of neonatal and craniofacial research: A plan to eliminate craniofacial, oral, and dental health disparities*. Retrieved July 20, 2008, from http://www.nidcr.nih.gov/NR/rdonlyres/932B8B7D-E114-4491-BE85-ABA6F29663AE/0/hdplan.pdf.
- Patton, L. I., Ashe, T. E., Elter, J. R., Southerland, J. H., & Strauss, R. P. (2006). Adequacy of training in oral cancer prevention and screening as self-assessed by physicians, nurse practitioners, and dental health professionals. *Oral surgery, oral medicine, oral radiology and endodontics*, 102(), 758-764.
- Pender, N. J. (1996). *Health promotion in nursing practice* (3rd ed.). Stamford, CT: Appleton & Lange.
- Pinkerton, J., & Bush, H. A. (2000, June). Nurse practitioners and physicians: patients' perceived health and satisfaction with care. *Journal of the American Academy of Nurse Practitioners*, 12, 211-217.

- Polit, D. F., & Beck, C. T. (2008). Nursing research: Generating and assessing evidence for nursing practice (8th ed.). Philadelphia: Lippincott Williams & Wilkins.
- Reeve, K., Byrd, T., & Quill, B. E. (2004, March). Health promotion attitudes and practices of Texas nurse practitioners. *Journal of the American Academy of Nurse Practitioners*, 16, 125-133.
- Skamagas, M., Breen, T., & LeRoith, D. (2008). Update on diabetes mellitus: prevention, treatment, and association with oral diseases. *Oral Diseases*, *14*(2), 105-114. Abstract retrieved from PubMed.
- Slade, G. D., Rozier, R. G., Zeldin, L. P., & Margolis, P. A. (2007, November 2). Training pediatric health care providers in prevention of dental decay: results from a randomized controlled trial. *BMC Health Services Research*, 7(). Retrieved July 15, 2008 from http://www.biomedcentral.com/1472-6963/7/176.
- Speziale, H. J., & Carpenter, D. R. (2007). *Qualitative research in nursing: Advancing the humanistic imperative* (4th ed.). Philadelphia: Lippincott Williams & Wilkins.
- Spielman, A. I., Fulmer, T., Eisenberg, E. S., & Alfano, M. C. (2005, November). Dentistry, nursing, and medicine: A comparison of core competencies. *Journal of Dental Education*, 69, 1257-71.
- Stevens, J., Iida, H., & Ingersoll, G. (2007, November-December). Implementing an oral health program in a group prenatal practice. *Journal of obstetric, gynecologic, and neonatal nursing: JOGNN*, 36, 581-91.
- U. S. Department of Health and Human Services (1991). Review of fluoride: benefits and risks. Retrieved July 22, 2008, from http://health.gov/environment/ReviewofFluoride/.

- U.S. Department of Health and Human Services (2008). *Progress review oral health*.

 Retrieved July 20, 2008, from http://www.healthypeople.gov/data/2010prog/focus21/.
- U.S. Department of Health and Human Services. (2000a). *Healthy People 2010: 21 oral health-objectives for improving health* (vol. 2). Washington DC: US Government Printing Office: Author
- U.S. Department of Health and Human Services. (2000b). *Oral health in America: A report of the surgeon general*. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health: Author.
- Wessel, L., Rhee, K., & Wolpin, S. (2007, February 15). Fighting the silent epidemic of poor oral health. *American Family Physician*, 75(4). Retrieved July 12, 2008 from http://www.aafp.org/afp/20070215/editorials.html#e1.
- Williams, R. C., Barnett, A. H., Claffey, N., Davis, M., Gadsby, R., & Kellett, M. et al. (2008). The potential impact of periodontal disease on general health: a consensus view. *Current Medical Research and Opinions*, 24, 1635-1643.
- World Health Organization (n.d.). *Health Promotion and Education*. Retrieved July 15, 2008, from http://www.searo.who.int/en/Section1174/Section1458/Section2057.htm.
- Zadeh-Modarres, S., Amooian, B., Bayat-Movahed, S., & Mohamadi, M. (2007). Periodontal health in mothers of preterm and term infants. *Taiwanese Journal of obstetrics and Gynecology*, 46(2). Abstract retrieved from PubMed.