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Nurse Practitioners in Burn Centers: An Exploration of the Developing Role

Trisha Ann Myers

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NURSE PRACTITIONERS IN BURN CENTERS:
AN EXPLORATION OF THE DEVELOPING ROLE

by

TRISHA A. MYERS

(Under the Direction of Donna Hodnicki)

ABSTRACT

The purpose of this study was to explore job satisfaction, barriers to practice, roles, and collaboration among nurse practitioners (NPs) choosing to practice in the environment of caring for burned patients. Exploration and identification of the role of NPs practicing among this unique population may benefit patients, and the burn community, when the expertise of the NP is added to a greater multi-disciplinary team. Two data collection instruments were utilized to measure the criterion variable job satisfaction: The Misener Nurse Practitioner Job Satisfaction Scale and a semi-structured telephone interview. Study participants consisted of 24 NPs employed in 16 burn centers in the United States. Although NPs have been providing care in burn centers for a number of years, little is known about their role or job satisfaction. This study is the first to report exclusively on the characteristics of NPs working in burn care settings.

INDEX WORDS: Nurse practitioners, Advanced practice nurses, Burn care, Burn centers

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by

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B.S.N., University of Nebraska, 1991

A Thesis Submitted to the Graduate Faculty of Georgia Southern University in Partial
Fulfillment of the Requirements for the Degree

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DEDICATION

This study is dedicated to the late Dr. Joseph M. Still, who is the founder of the Joseph M. Still Burn Center in Augusta, Georgia. His compassion for and dedication to burn victims remains unsurpassed.

ACKNOWLEDGEMENTS

I would like to thank the nurse practitioners who took the time and interest to participate in this study, for without them, this study would not have been possible. Special thanks to Donna Hodnicki for her extraordinary help in assisting me with getting this all together and to my other theses committee members, Maria Smith and Jean Bartels, for their final editing. Special thanks to Ling Wang, Graduate Assistant, for helping me make sense of the data analysis.

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CHAPTER 1

INTRODUCTION

The role of the advanced practice registered nurse (APRN) has expanded over the years. In 2000, a study of registered nurses (RNs) in the United States conducted by the U.S. Department of Health and Human Services, found that an estimated 196,279 RNs were prepared to practice in advanced practice nursing roles (Spratley, 2002). This number constitutes a 21.4% increase from the estimated 161,712 RNs who were prepared to practice as APRNs in 1996 (Guido, 2004). However, the U.S. Department of Health estimated that nearly 200,000 APRNs would be needed by the year 2000 to accommodate increasing patient acuity, decreased lengths of stay, and advanced technology (Norsen, 1995). Advanced practice registered nurses are a group comprised of nurse practitioners (NP), clinical nurse specialists (CNS), certified nurse midwives (CNM) and certified registered nurse anesthetists (CRNA). Along with an increase in the number of RNs prepared as APRNs, there has been a corresponding increase in the breadth of APRN care provided within different contexts. With the overwhelming success of nurse practitioners provision of care in primary health care settings, the role has expanded to various tertiary care environments, such as acute care, surgery, and other sub-specialties, including burn centers (Guido, 2004). Internet websites for the various burn facilities located throughout the country provide evidence that nurse practitioners are members of many burn care teams.

The transition of many nurse practitioners from community based care to acute care and hospital settings resulted from the recognition that this group has the knowledge base and advanced skills to provide care consistent with the unique attributes and needs

of selected populations. Nurse practitioners who provide burn care bring to their patients the advanced skills and knowledge necessary to treat the complex medical, surgical, spiritual, and psychosocial needs unique to this special population. Patients who are burned pose many challenges and problems for nurse practitioners, including managing multiple comorbid conditions, pain control, therapeutic nutritional needs, psychosocial issues, scar management, deconditioning, and extensive education and anticipatory guidance throughout the course of hospitalization and follow-up. Realizing the profound impact a burn injury can have not only on the patient but on the entire family, nurse practitioners who provide burn care have the opportunity to assure continuity of care by becoming the family's principle point of contact in the health care context and by assuming a case management role throughout each patient's hospitalization. Through collaborative practice arrangements with physicians, nurse practitioners have contributed significantly to burn research, to advances in wound technology, and to the provision of cost-effective care in a context of increasing patient acuity.

This chapter provides information on the purpose of this study and defines the research questions that guided it. Additionally, the theoretical framework and identified assumptions and limitations of this study are discussed.

Purpose of the Research

Medical literature is replete with research regarding the roles of nurse practitioners in primary care and other sub-specialties, however, there have been few (if any) published works exploring nurse practitioners employed in burn intensive care units (Belcher & Shurpin, 1995; Cole & Ramirez, 2002; Fulmer, Flaherty & Medley, 2001; Guido, 2004; Hodson, 1998; MacLellan, Gardner, & Gardner, 2002; Pesznecker &

Draye, 1978; Teicher, Crawford, Williams, Nelson, & Andrews, 2001). This finding indicates a significant lack of research-based information on the role of nurse practitioners in burn care settings. Little is known about the characteristics of nurse practitioners in burn centers for this area has not been well studied. Job satisfaction, barriers to practice, roles, and collaboration among nurse practitioners choosing to practice in the dynamic and multi-disciplinary environment of burn care remain unexplored. The purpose of this study was to explore variables affecting job satisfaction, roles, barriers to practice, and practice challenges among nurse practitioners choosing to practice in the arena of burn care.

Significance of the Study

Nontraditional nurse practitioner practice environments have evolved. The opportunity to develop a broader knowledge base regarding these specialty practice environments presents as advanced practice nursing roles expand. Although findings in the literature suggest that nurse practitioners have been providing care in burn centers for a number of years, surprisingly little is known about the role of these individuals. Exploration and identification of the role of nurse practitioners in providing care and meeting the needs of patients in burn centers may provoke additional opportunities for employment and expansion of the role in these centers, thus benefiting patients with their expertise.

This study was the first to report exclusively on the characteristics of nurse practitioners who provide care in burn centers. This study provides a foundation for future research regarding nurse practitioners specializing in the care of patients who are burned.

Research Questions

The following two research questions guided this study:

1. What is the evolving role of the nurse practitioner in a burn center?
2. What are the perceived support structures and barriers to job satisfaction as perceived by nurse practitioners employed in a burn center?

Conceptual Framework

Herzberg, Mausner, and Snyderman's (1959) dual-factor theory of job satisfaction provided the conceptual framework for this study of the evolving role of nurse practitioners in burn centers. The theory posits that two variables comprise the concept of job satisfaction. The two variables are *hygiene* and *motivation*. According to the theory, elements such as company policy, supervision, interpersonal relations, working conditions, and salary are hygiene (or *extrinsic*) variables rather than motivators. Although hygiene issues are not the primary source of job satisfaction, problems with these issues must be dealt with first in order to create an environment in which job satisfaction and motivation are even possible (Syptak, Marsland & Ulmer, 1999). The absence of hygiene variables can create job dissatisfaction, but their presence does not generally motivate or create satisfaction.

In contrast, motivators (or *intrinsic* variables) are those elements that enrich a person's job. Five particular elements are identified as strong determiners of job satisfaction: achievement, recognition, the work itself, responsibility, and advancement (Gawel, 1999). It is through these more personal elements that people find the most job satisfaction.

These hygiene and motivating variables constantly interact. They are subject to change with successful resolution of issues related to *extrinsic* variables (hygiene or dissatisfiers) and often result in the employees creating job satisfaction through *intrinsic* factors (motivators or satisfiers) (Gawel, 1999).

The Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS), a tool specifically designed to measure job satisfaction among nurse practitioners (Misener & Cox, 2001), provided one of the venues for data collection in this study. This tool utilizes the common denominators of both *intrinsic* and *extrinsic* factors, which suggests that this tool relied on some of the elements from Herzberg's model as a conceptual underpinning (Misener & Cox, 2001).

Assumptions of the Study

The assumptions in this study were:

1. The participant's responses to the data collection tools would be truthful.
2. Job satisfaction can be measured with nurse practitioners in burn centers similarly to nurse practitioners working in other contexts.

Limitations of the Study

The limitations of this study were:

1. The use of questionnaires as data collection technique may create bias.
2. A small sample may not allow for the breadth of data to fully explore the evolving role of nurse practitioners who provide care in burn centers.
3. The use of an intermediary person to contact potential nurse practitioner participants may have negatively impacted the number who chose to participate in this study.

Summary

Nurse practitioners who provide care to patients in burn centers work in a specialty practice that is outside of the primary care arena. Burn centers are specialty care contexts, and as such, provide the nurse practitioner an opportunity to define and to perfect their evolving roles while making substantial contributions to patients who are burned and the burn community in general. The attributes and characteristics of nurse practitioners employed in burn centers, as well as factors affecting job performance, remain unexplored and undefined. It is hoped that by studying this specialized population of nurse practitioners, the care provided in the burn care arena can be richly enhanced.

CHAPTER 2

REVIEW OF THE LITERATURE

Approximately one million Americans sustain a burn injury each year with an estimated 45,000 of these people requiring hospitalization (Faucher, 2004). The 1991 admissions data obtained by the American Burn Association indicates that admissions to the more than 125 burn centers throughout the U.S. have increased from 13% to 50% since the 1970's (Faucher, 2004). Many burn centers specialize not only in burn injuries but also in the management of chronic wounds, necrotizing fasciitis, severe skin infections, and the many toxic skin syndromes that are becoming increasingly more prevalent. As a result of this continued influx of patients into burn centers, in both numbers and acuity, and a shift away from training physician specialists, burn centers throughout the country face shortages in both burn surgeons and collaborating physicians (Faucher, 2004).

In this section information defining the need for skilled professional staff consisting of physicians and nurses throughout burn centers is presented. Some of the unique contributions made by nurse practitioners practicing in burn centers throughout the United States will be highlighted, as well. Additionally, data in the literature indicates that APRNs have been providing wound, ostomy, and incontinence care for many years. Specialty certification exists for this particular APRN population as well as Burn Special Interest Groups and Advanced Burn Life Support certification for burn nurses.

Need for Increased Physicians and Nurses in Burn Centers

The University of Iowa Burn Treatment Center conducted a study to quantify both the current need and perceived future need for burn surgeons throughout the country (Faucher, 2004). Surveys were mailed to 159 burn care facilities throughout the United States and Canada addressing the number of annual admissions, the number of burn surgeons, the need for more surgeons, and the retention of burn surgeons. The findings indicated that 29% of the responding burn centers were looking for an additional surgeon, with an additional 38% anticipating the need for another surgeon within five years (Faucher, 2004). An overwhelming 89% of these burn centers anticipated having difficulty recruiting surgeons and reported nearly a 60% attrition rate.

Burn centers are challenged by both a physician shortage and a shortage of nurses. In 2004, the Membership Advisory Committee of the American Burn Association surveyed 124 burn centers in the United States in regards to the number of nursing staff and the number of vacant positions (Yurko, 2004). Of these centers, 62% reported a nursing shortage with an average of 4.6 nursing positions left unfilled (Yurko, 2004). In addition, 10 of these 124 burn centers identified having adverse patient outcomes as a direct result of their staffing shortages. Burn centers throughout the country are faced with similar challenges of increasing patient acuity and shortages of physicians and nurses. In light of this data, the movement of nurse practitioners from other practice venues to the specialty area of burn intensive care units as adjuvant care providers is not surprising.

Nurse Practitioners in Burn Centers

During the 1990s, there was a sudden increase from 65% to 200% of nurse practitioners, physician assistants, and other advanced practice health professionals into the primary care workforce (Faucher, 2004). As some of these providers gained more skill and knowledge, there was a momentum for these groups to move from primary care into the acute care and hospital settings. Both Hodson (1998) and Roberts-Davis, Nolan, Read, and Gilbert (1998) described how numerous reorganization factors within the health-care market and health-care delivery systems have shaped the development of non-traditional practice arenas for nurse practitioners. Major factors that have contributed to these changes include consumers choosing among health care service packages, a marked reduction in inpatient days, ambulatory care expansion, and the growth of capitation as payment. Pressure to expedite patients through the health care system, a shortage of house staff, and increased patient acuity levels have created new opportunities for nurse practitioners. One outcome of health care reform was the redesign of education programs to prepare APRNs who can adapt to this changing health care environment (Hodson, 1998). As a result of these changes, nurse practitioners are increasingly expanding their roles and finding their unique niches within the health care marketplace.

A comprehensive literature search using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, PubMed, Ovid, Medscape, and Google was completed. A wide range of search terms were used to include: burn care, burn centers, nurse practitioners in burn centers, advanced practice nursing and burn and wound care, advanced practice nursing roles and burns, wounds-nursing and nursing-

innovative roles, and nurses and job satisfaction. The review yielded many articles acknowledging that not only are nurse practitioners indeed working in burn centers throughout the country, but they are making diverse contributions to the care of their patients and the burn community in general.

One nurse practitioner employed a nontraditional approach to the often difficult, multi-modality component of pain management (Keough, 2005). At a burn center in Ohio, a nurse practitioner was part of a special team, including a music therapist on loan from the Cleveland Music School Settlement. Over three years the team researched whether music therapy was an effective nonpharmacological intervention in the treatment of pain and anxiety in 100 burned patients (Keough, 2005). As a result of the findings, the team developed several music therapy protocols specific to both acute and rehabilitating burned patients directed toward improving the management of pain and anxiety (Prensner, Yowler, Smith, Steele & Fratianne, 2001). These protocols have become a regular part of the burn center's clinical pathways. According to the team's NP "study reports showed that music therapy did help to decrease burn patient's anxiety" (Keough, 2005, p.2), thus reducing costs and medication usage, promoting procedure compliance, and contributing to an over-all better patient experience. The team is still utilizing and studying music therapy while seeking insurance coverage for the management strategy.

A clinical nurse specialist in psychiatric-mental health nursing, and past president and current faculty of the New York Milton H. Erickson Society for Psychotherapy and Hypnosis, has been utilizing and teaching a nontraditional approach to pain management within the burn community (Hellinghausen, 1998). Since the 1970's, this clinical nurse

specialist has been utilizing and studying hypnotherapy as an adjunct to pain control with burn patients and patients with chronic and debilitating disease.

On September 11, 2001, teams of burn specialists, including several burn nurse practitioners, were assembled in burn centers in New York and the Washington, D.C., area in response to the terrorist attacks on the World Trade Center and the Pentagon. For weeks these teams worked tirelessly as countless numbers of burned victims were brought in for care. As a result of this tragedy, these burn teams were able to significantly impact the outcomes of many burned victims. They helped identify many deficiencies and to implement positive changes in the hospitals involved in the care (Vaughan, 2005).

Many burn centers have nurse practitioners who are quite active in community burn prevention awareness programs and who provide education regarding burn care to personnel in regional hospitals and academic facilities. Numerous major academic burn centers, as well as a number of less recognized burn centers throughout the country, include nurse practitioners in their burn teams and utilize them in a variety of diverse roles (American Burn Association, 2005). Examples of these roles include managing outpatient clinics, assisting burn surgeons with surgical procedures, participating in research, and performing various necessary procedures such as placing central, arterial, and Swan lines. They are also providing wound care, dictating history and physicals, assessing patients, documenting progress notes, writing orders, and ordering and interpreting diagnostic tests. They provide staff and community education, and assist the medical staff to manage the complex medical and surgical needs of burned patients.

Nurse practitioners are increasingly being employed in acute-care and hospital settings to assist in the management of patients traditionally cared for by attending physicians and house staff (Cole & Ramirez, 2000; Hodson, 1998; Lome, 2005; Sole, Hunkar-Huie, Schiller, & Cheatham, 2001; and Verger, Marcoux, Madden, Bojko, & Barnsteiner, 2005). Sub-specialty practice opportunities are emerging which include surgery, pediatric and adult critical care, emergency medicine, trauma, and wound and ostomy care. Study findings indicate that advanced practice nurses are in a unique position to assess immediate and long-term patient needs, both physical and psychological, in addition to establishing therapeutic relationships with both patients and families while collaborating with physicians and other healthcare providers in establishing a comprehensive plan of care (Blass & Reed, 2003). Additionally, nurse practitioners are better adept at developing a more holistic management plan with a focus on family interaction, environment, and response to illness and treatment measures than are physicians (Blass & Reed, 2003).

While there are no studies that address the role of nurse practitioners in burn care, there are studies that address the role of advanced practice registered nurses who provide care to patients with wounds, ostomies, or incontinence (Collier & Radley, 2005; Kerstein, 1998; MacLellan, Gardner, & Gardner, 2002; and Porrett, 1996). An article in *The Journal of Wound, Ostomy and Continence Nursing* (Doughty, 2000) provided information on the number of nurses specializing in wound, ostomy, and/or continence care who were moving into advanced practice roles. The well-established role of the advanced practice registered nurse in the area of continence nursing was reiterated (Doughty, 2000). The potential for an advanced practice role in the area of wound care is

receiving increased attention. In addition, studies have shown that advanced practice registered nurses are providing much of the primary care for patients with wounds, ostomies, and incontinence (Doughty, 2000; Harris, 1997; Kerstein, van Rijswijk, & Beitz, 1998). To validate the role, the American Professional Wound Care Association (APWCA) allowed RNs, as well as APRNs, and physicians to obtain certification in advanced wound care in an effort to facilitate an integrated, multi-disciplinary approach to wound care.

The American Burn Association (ABA) sponsors a Special Interest Group (SIG), for nurse practitioners, physician assistants, and other advanced practice health professionals, to exchange ideas and practices and to provide a forum for the promotion of continuing education opportunities specific to issues related to burn care (American Burn Association, 2005). Within these SIGs individuals discuss issues during annual conferences and other ABA-sponsored events in addition to an online Internet forum. Additionally, all licensed burn care providers may obtain certification in Advanced Burn Life Support (ABLS) through the American Burn Association.

Summary

Information in the literature supports that nurse practitioners have been practicing in burn facilities throughout the United States for a number of years. Shortages of burn surgeons and nurses, coupled with increasing patient admissions to burn centers, have created an environment for nurse practitioners to make significant contributions to the care of burn patients while being a considerable asset to their collaborating physicians. The highly unique and specialized environment of burn care allows nurse practitioners to

provide personalized, client-oriented, comprehensive, and holistic care while ensuring continuity of care and collaboration among the burn team.

CHAPTER 3

METHODOLOGY

This was a descriptive study exploring the role and job satisfaction of nurse practitioners who practice in burn centers in the United States. Two data collection tools were utilized for this study. The Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS) is a self-report questionnaire that uses a 6-point Likert scale (see Appendix A). A second tool developed by the researcher utilized a semi-structured telephone interview to further expound upon participant responses to the MNPJSS (see Appendix B). The data obtained from the interview tool was analyzed for common themes.

This chapter provides an explanation of the study design and describes the study participants. The data collection tools and methods for data analysis are presented.

Protection of Human Rights

The Internal Review Board at the Office of Research Services at Georgia Southern University approved the study. The approved design was followed. There were no risks to the participants and minors were not involved.

Study Design

A descriptive study utilizing both survey and interview data was used to explore the role of the nurse practitioner in a burn center. A mailed survey questionnaire, The Misener Nurse Practitioner Job Satisfaction Scale, was utilized to measure the criterion variable of *nurse practitioner job satisfaction* within the burn setting. A semi-structured telephone interview utilizing open-ended questions was conducted following completion of the MNPJSS to further elaborate upon participant responses to the questionnaire.

Population

The population represented in this study included nurse practitioners practicing within burn centers in the United States who met licensure and credentialing requirements specific to each state. A master list of burn centers located throughout the United States was obtained from the American Burn Association's web site <http://www.ameriburn.org> (American Burn Association, 2005). The Burn Care Facilities Directory identified 131 burn facilities and provided contact information for each facility.

Data Collection Procedure

The researcher attempted to contact all 131 burn centers. An initial email inquiry was sent to each burn center's medical or nursing director inquiring whether or not they employed nurse practitioners in any role. Those facilities not responding within 14 days were sent a formal letter of inquiry and phoned several times. Facilities that did not list a contact person's email address were telephoned and either a voice message was left to contact the researcher or the researcher spoke directly to the nursing director to obtain information. The remaining facilities that did not return an answer within 14 days were called numerous times over the course of 30 days in an attempt to contact the nursing director.

In spite of numerous attempts to contact the 131 burn centers, no contact was made with 29 facilities. Of the remaining 102 burn centers, 60 did not employ nurse practitioners and two were no longer operating as a burn center. The remaining 40 burn centers employed a total of 69 nurse practitioners. Thus, all 69 nurse practitioners comprised the population for the study.

A total of 69 study packets were mailed; one for each nurse practitioner. The packets were mailed to the contact person identified at each burn facility. This person had agreed to distribute a packet to each of the nurse practitioners in the facility. In some instances direct contact information was provided for the individual nurse practitioners in the facility, therefore, the packet was mailed to the nurse practitioner directly. The packets included the Misener Nurse Practitioner Job Satisfaction Scale, a copy of the telephone interview questions that would be asked if permission was granted to contact the participant by phone, informed consent information (see Appendix C), and an interview contact form (see Appendix D). Packets were identifiable only by individual codes placed at the top left corner of each form for purposes of tracking data packets.

Of the total 69 study packets mailed, 24 nurse practitioners (34.7%) completed and returned the study materials in the mailed packets. The 24 participants worked in 16 burn centers throughout the United States. While 10 (41.6%) of the 24 participants declined permission to conduct a telephone interview, they did provide unsolicited written responses to the phone interview questions. Five packets (20.8%) were returned with the MNPJSS completed but without either permission to contact or any narration related to the interview questions. In total, 24 participants completed the MNPJSS. Nineteen provided interview data either by phone interview or in written narrative content. A semi-structured telephone interview was conducted with nine of the nurse practitioner participants (37.5%) after they had completed the MNPJSS. Polit and Beck (2004) state that “a well-designed and properly conducted interview study normally achieves response rates in the vicinity of 80% to 90%, whereas mailed questionnaires typically achieve response rates of 50% or lower” (p. 351). The nurse practitioner

participants provided the researcher with convenient dates and times to conduct the interview. The researcher then emailed or phoned each participant with an interview appointment. All returned data collection packets, as well as the audiotaped telephone interviews, were kept sealed in a file accessible only to the researchers and faculty committee.

Instrumentation

Two data collection instruments were used in this study: The Misener Nurse Practitioner Job Satisfaction Scale and a semi-structured telephone interview. The MNPJSS is a 44-item, 6-point Likert scale, self-report questionnaire. Available responses ranged from “very satisfied” to “very dissatisfied.” Six factors (subscales) are addressed in the questionnaire: 1) Intra-practice partnership/collegiality; 2) challenge/autonomy; 3) professional, social, and community interaction; 4) professional growth; 5) time; and 6) benefits. This instrument has a possible maximum score of 264 using a summated rating.

A semi-structured interview tool was the second instrument used to collect data. The interview tool was included in the study packet to allow the participants to preview the questions that would be asked during the phone interview. However, 10 of the participants chose to provide written answers to the interview tool instead of a phone interview. The data from the nine phone interviews and the 10 written interview replies were analyzed together. Questions on the interview tool were developed to gather on the following:

1. The nursing degree held by the nurse practitioner in the burn center.

2. The number of years of experience the nurse practitioners have and how long they have been practicing in burn care.
3. The role of nurse practitioners working in burn centers and typical work activities.
4. The number of hours a week the nurse practitioners work.
5. The type of employment arrangements or contracts the nurse practitioners have and their contentment with these arrangements.
6. The most frequently encountered challenges and barriers to practice for nurse practitioners working in burn facilities.
7. How the nurse practitioners benefit the burn community and their patients.
8. The changes that the nurse practitioners feel are needed to improve their practice or work satisfaction.

Reliability and Validity

The MNPJSS tool is based on a scale originally developed by Mueller and McCloskey (1990). It has repeatedly demonstrated high item-to-total reliabilities (0.88 to 0.92) (Misener & Cox, 2001). Misener and Cox (2001) estimated the Cronbach's alpha score for the entire 44-item scale and found it to be .96, therefore, acceptable.

Coefficient alpha reliability estimates were calculated for each of the six subscales and reported at .94, .89, .84, .86, .83, and .79 for intrapractice partnership/collegiality; professional, social, and community interaction; challenge/autonomy; professional growth; time; and benefits, respectively (Misener & Cox, 2001).

Reliability and validity regarding the telephone interview tool were achieved through space triangulation and method triangulation (Polit & Beck, 2004). "Space triangulation involves collecting data on the same phenomenon in multiple sites" (p.

431). In this study, identical data packets were distributed to 24 nurse practitioners working in 16 different burn facilities allowing for validation of data by testing for cross-site consistency. Method triangulation was achieved by utilizing a blend of two data collection instruments (the MNPJSS and the telephone interview) to confirm data for internal consistency (Polit & Beck, 2004). The telephone interview questions were developed by the researcher and subsequently reviewed by the faculty committee. In some instances, the format for individual questions was altered to check for reliability of the answer.

Data Analysis

The 24 returned MNPJSS tools each contained 44 variables that were examined to determine a total mean score and a standard deviation, which correlated with a Likert scale point, indicating overall job satisfaction among the participants. These 44 variables were further subdivided into six composite subscales each of which were then calculated for total mean score and corresponding Likert scale point. Additionally, similar statistics were performed to identify the five highest ranking and five lowest ranking individual variables affecting job satisfaction among the participants. For analysis of the quantitative data, descriptive and inferential statistics were employed using the Statistical Package for the Social Sciences.

Simple percentage calculations were done for analysis of demographic data as they pertained to nurse practitioner education preparation and employment arrangements. The data obtained from the telephone interviews were examined for commonly occurring themes and variations regarding roles and activities, challenges and barriers to practice,

suggestions for change, and benefit to the burn community. Percentage calculations were then performed on this data as well.

Description of Study Participants

The 24 participants practiced within 16 burn facilities in the United States. These nurse practitioners had diverse degrees and specialty preparation as family, acute-care, pediatric, and adult nurse practitioners. Several of them had additional degrees and advanced education (see Table 1). Many of the participants had practiced as registered nurses for years in burn centers prior to becoming a nurse practitioner; choosing to remain in burn practice upon completion of an advanced nursing practice degree. Many of the nurse practitioners were active in and held office within national burn organizations such as the American Burn Association and National Burn Association, and advanced practice nursing organizations, such as the American College of Nurse Practitioners. Their practice arenas and roles were diverse. The practice contexts included outpatient ambulatory burn clinics, surgery assist arenas, acute-care and general medical management areas, and educational areas that provided care to a diverse patient population. Children and adults who were suffering with both acute and non-acute burn injuries and chronic wounds were provided care by these nurse practitioners.

Description of the Location of the Burn Centers

The 16 burn centers were located throughout the country with seven (43.8%) being located within major university medical centers. Six (37.5%) of the burn centers were located in the South, four (25%) in the Southwest, and two (12.5%) each in the Northwest, Northeast, and Midwest. Annual admissions to the burn centers ranged from

80 patients to 2,000 patients. The largest burn center had 47 inpatient beds and the smallest burn center had four inpatient beds.

Summary

This was a descriptive study utilizing the Misener Nurse Practitioner Job Satisfaction Scale, a 44-item, 6-point Likert scale, and a telephone interview for data collection. The aim of this study was to explore the role and job satisfaction among nurse practitioners working in burn centers throughout the country. Study packets were mailed to 69 nurse practitioners working in 40 burn centers in the United States with 24 nurse practitioners returning the MNPJSS at a 34.7% return rate. Of the 24 nurse practitioners, 19 (79.2%) either completed the telephone interview or answered the interview questions in a written narrative content. The remaining five participants (20.8%) neither returned contact information for a phone interview nor completed the interview questions narratively. Data analysis was completed for the MNPJSS utilizing the Statistical Package for the Social Sciences. The interview question responses were analyzed for common themes, occurrences, and variations.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

The findings from the study enable the reader to begin to conceptualize the various roles, activities, and satisfaction of a nurse practitioner who provides care in a burn center. The educational backgrounds, roles, and typical daily activities of the nurse practitioners were explored. The data provide information on the types of employment arrangements, frequently encountered problems in the setting, and how these nurse practitioners felt that they contributed to their patient population.

Participants

Twenty-four participants employed within 16 burn facilities throughout the United States comprised the sample. A total of 16 (66.6%) were women, and four (16.7%) were men. The remaining four (16.7%) did not specify gender. The average number of years working as a nurse practitioner was five with a range from one year to 11 years. The average number of years practicing within a burn center, either as a registered nurse or a nurse practitioner, was 6.2 years with a range from one year to 35 years.

Table 1 shows a breakdown of participants by subspecialty practice. The majority of the participants were family nurse practitioners. Acute care, pediatric and adult nurse practitioners comprised the next highest classifications. Some participants held additional certification or credentials giving them a broader base of knowledge and preparation. One family nurse practitioner was certified as an adult nurse practitioner, and another family nurse practitioner had earned a PhD in education. One acute care

nurse practitioner was additionally certified as a pediatric nurse practitioner and one pediatric nurse practitioner was additionally certified as an adult nurse practitioner.

Table 1

Subspecialty of NP Participants by Percent and Sample Size (n=24)

NP Subspecialty	Sample Size (N)	Percent
FNP	10	41.6*
ACNP	3	12.5^
PNP	3	12.5#
ANP	3	12.5
Other	5	20.

FNP-family nurse practitioner; ACNP-acute care nurse practitioner; PNP-pediatric nurse practitioner;

ANP-adult nurse practitioner; Other-unknown

*1 certified also as ANP, 1 had PhD; ^ 1 certified also as PNP; # 1 certified also as ANP (all were counted only once in the Table)

Employment Arrangements

The nurse practitioners reported working an average of 52 hours a week with a range from 40 hours to 84 hours. Only two (10.5%) of the 19 nurse practitioners were required to be on-call. The employing agency varied among the participants. Of the 19 participants, eight (42.1%), were employed by either the burn facility or the hospital. Four (21%) were employed by the Department of Surgery or a surgeon. Three (15.7%) were employed by a single physician and four (21%) were employed by a group of physicians (internists or intensivists). Only five (26.3%) of the 19 participants had a

formal employment contract, while four (21%) had input into contract development and one (5.2%) had a standard hospital-based nurse practitioner contract. Anecdotal findings obtained from the interview questions indicated that most of the nurse practitioners (78.9%, n=15) were not concerned about the lack of an employment contract nor did they feel that one was necessary.

NP Roles and Activities

The roles and work activities of the nurse practitioners were diverse. Several stated that their job description and actual role were still in development. Job duties were very similar and often differed only in the amount of time spent performing them and on whether the nurse practitioner worked for the surgical or medical staff. Primary job activities included, but were not limited too 1) patient assessments, 2) diagnostic test ordering and evaluation of results, 3) burn and wound care, 4) writing or dictating the patient history and physicals, 5) writing orders and progress notes, 6) admitting and discharging patients, 7) seeing patients on rounds in the center or consulting, 8) placing central lines and performing other necessary procedures, 9) assisting with surgical burn procedures, 10) providing patient and staff education, 11) participating in research activities, 12) participating on committees, 13) managing ambulatory burn/wound clinics, and 14) participating in community outreach programs. The nurse practitioners who were employed by surgeons assisted during surgical burn procedures and performed more bedside wound and surgical procedures, whereas, the nurse practitioners employed by intensivists spent more time assessing patients, documenting care, and performing necessary bedside procedures.

MNPJSS Data Analysis

The final MNPJSS has a possible total score of 264 (Misener & Cox, 2001). A Likert scale was used to quantify data on each of the 44 variables. The Likert scale uses 1= Very Dissatisfied, 2= Dissatisfied, 3= Minimally Dissatisfied, 4= Minimally Satisfied, 5= Satisfied, and 6= Very Satisfied. The total score for each individual participant was obtained by summing the scores for all of the 44 variables. The summative score of the 24 participants ranged from 162 to 246 with a mean score of 212 (SD 21.93). The average variable response was 4.82 on the 6-point Likert scale which indicated that the nurse practitioner respondents were overall “satisfied” with their job.

These 44 variables were then further grouped into six composite subscales that measured 1) intrapractice partnership/collegiality, 2) challenge/autonomy, 3) professional, social and community interaction, 4) professional growth, 5) time, and 6) benefits. Scores from each of the six subscales were then analyzed and rank ordered according to how each contributed to job satisfaction. Table 2 highlights this data.

Table 2**MNPJSS Subscale Scoring Ranking**

Subscale	Mean	SD	Scale Point
Challenge/Autonomy	126.0	5.3	5.2
Benefits	123.0	2.0	5.1
Professional, Social, Community Interaction	116.0	8.8	4.8
Time	111.0	7.3	4.6
Professional Growth	110.2	6.6	4.6
Intrapractice Partnership/Collegiality	110.0	19.1	4.5

The highest ranking subscale, *challenge/autonomy*, incorporated 10 of the variables (refer to Appendix A). This subscale includes 1) percentage of time spent in direct patient care, 2) patient mix, 3) sense of accomplishment, 4) expanding skill level, 5) ability to deliver quality care, 6) opportunities to expand scope of practice and time to seek advanced education, 7) level of autonomy, 8) sense of value, 9) challenge at work, and 10) flexibility in practice protocols. These are operationalized as “*intrinsic or motivating*” factors as related to job satisfaction indicating that the nurse practitioners in this study were satisfied with these 10 variables.

Benefits ranked second highest on the subscales, indicating that the majority of the nurse practitioner participants were satisfied with their salary and benefits. This subscale includes three variables: 1) vacation/leave policy, 2) benefit package, and 3) retirement plan.

The third highest ranking subscale, *professional, social, and community interaction*, indicated minimal satisfaction. This subscale included eight variables: 1) quality of assistive personnel, 2) social contact at work, 3) status in the community, 4) social contact with colleagues after work, 5) professional interaction with other disciplines, 6) interaction with other nurse practitioners including faculty, 7) recognition of work from peers, and 8) acceptance and attitudes of physicians outside of your practice. This subscale has a blend of both personal and clinical factors (both “hygiene” factors and “motivators”) that affect job satisfaction.

Ranking fourth, with a minimally satisfied score, was the subscale of *time*. This subscale included four variables: 1) time allotted for answering messages, 2) time allocation for seeing patients, 3) patient scheduling policies and practices, and 4) time allotted for review of lab and other test results. Analysis from the interview data supports this minimally satisfied ranking in that the nurse practitioner participants reported spending the majority of their day directly involved in patient care. A lack of assistance and resources created definite time-management issues. Too many patients to see, increasing patient acuity and “not enough hours in a day” were all cited as being contributors to time management problems.

Professional growth ranked fifth on the subscale. This subscale included five variables: 1) support for continuing education, 2) opportunity for professional growth, 3) time off to serve on professional committees, 4) amount of involvement in research, and 5) opportunity to expand scope of practice. Six of the participants reported a need for an additional nurse practitioner to relieve some of the patient load. While these variables ranked lower on the scale, they still maintained a minimally satisfied score.

Ranking lowest, but still minimally satisfied, was the subscale of *intrapractice partnership/collegiality*. This subscale addressed 14 variables: 1) immediate supervisor, 2) amount of administrative support, 3) consideration given to your opinion and suggestions for change in the work setting or office practice, 4) input into organizational policy, 5) freedom to question decisions and practices, 6) opportunity to develop and implement ideas, 7) recognition from superiors, 8) evaluation process and policy, 9) reward distribution, 10) conflict resolution, 11) consideration given to personal needs, 12) monetary bonuses, 13) opportunity to receive compensation for services performed outside of normal duties, and 14) respect for your opinion. Inappropriate employer expectations, lack of administrative support, and time management issues created difficulties within the practice context. All five of the lowest ranking individual variables from this study were within this subscale.

These findings suggest a rather comparative mix between extrinsic and intrinsic factors contributing to nurse practitioner job satisfaction; however, they did demonstrate that intrinsic factors generally tend to generate higher satisfaction. The interview data provided support for the data obtained from the MNPJSS survey.

Job Satisfaction Factors

The 44 total variables were further analyzed for rank order in relation to job satisfaction. Table 3 identifies the five highest ranking job satisfiers according to findings from the MNPJSS. Of these five highest ranking satisfiers, four were considered “motivators or intrinsic satisfiers” contributing to job satisfaction.

Table 3**MNPJSS Five Highest Ranking Job Satisfiers**

Variable	Mean	SD
Sense of accomplishment	5.58	0.58
Immediate supervisor	5.54	0.59
Level of autonomy	5.42	0.58
Sense of value	5.38	0.65
Freedom to questions practices/decisions	5.33	0.64

Table 4 identifies the five lowest ranking job satisfier variables according to data from the MNPJSS. These five variables may all be categorized as “hygiene issues or dissatisfiers” according to Herzberg’s theory.

Table 4**MNPJSS Five Lowest Ranking Job Satisfiers**

Variable	Mean	SD
Patient scheduling procedures/policies	4.17	1.71
Time off to serve on professional committees	4.17	1.13
Reward distribution	3.96	1.65
Monetary bonuses	3.50	1.67
Compensation for services outside normal duties	2.54	1.82

Interview Data Analysis

Analysis of the interview data provided additional information supporting job satisfaction findings from the MNPJSS instrument. This survey data identified frequently encountered challenges, barriers to practice, and benefit to the burn community and patients.

Frequently Encountered Challenges

The nurse practitioner participants were faced with a number of challenges in relation to practicing within a burn environment. Many of these same challenges are faced by nurse practitioners practicing in other specialty areas. Of the 19 participants, four (16.6%) stated that *staying abreast on the technology that is used in the care of burned patients* was a major challenge. There have been significant technological advancements with skin substitution products, cultured skin, antimicrobial dressings, pain management, and pharmacotherapeutics within burn care, especially within the last 10 years, as more clinically based evidence emerges regarding burn injury management. Unless a nurse practitioner works in a progressive burn center that is actively involved in research (where immersion in the latest research findings and latest standards of practice is available) or the nurse practitioner takes the necessary time to attend burn conferences and read current, peer reviewed burn literature, it is easy to become delinquent in the advancements in burn and wound care.

Pain management for burn patients was noted as being another frequently encountered challenge when working with burned patients. Three (12.5%) of the 19 participants stated that this factor posed a major challenge. Great improvements have been made in managing the frequent intense pain and anxiety suffered by burned patients.

Burned patients often deal with daily pain and considerable anxiety related to wound care, dressing changes, and rehabilitation. Pharmaceutical companies have made significant strides in the development of medications that allow a wider multi-modality approach to pain management. These modalities include combinations of pharmaceutical agents as well as attention to behavioral and psychosocial factors affecting burn recovery. Staying abreast of these modality improvements requires vigilance on the part of the physicians and nurse practitioners in order to benefit the patients and their families. Most of the participants reported that participating in painful procedures and not being able to adequately address pain control was often quite disparaging to them, often causing significant job dissatisfaction.

Other practice challenges included *managing the highly complex psychological and medical needs* of this unique patient population and often having to manage “difficult” patients and families. Many burned patients require lengthy hospital stays, undergo multiple surgical procedures, experience multiple life-threatening events during hospitalization, and suffer from lifelong physical and psychological impairments as a result of their burn injuries. All these factors contribute significantly to family discord and stress. Both patients and families often require ongoing support from social services, nurses, and case managers. These factors can consume a considerable amount of a nurse practitioner’s time and resources. Daily association with traumatic life-events and uncertain patient outcomes pose particular challenges for nurse practitioners who provide care to burned patients.

Other issues identified were related to *time management*. Being in a rural setting with a large referral area, lack of staff, monotony of treating similar patients with similar

needs, and not being able to provide primary care services were other practice challenges cited by the nurse practitioners working in burn centers. Many burn centers receive patients from a rather large geographical area. With staff shortages being prevalent throughout burn centers, the increased number of high acuity patients in the burn center can be taxing to the staff. During time periods of increased burn injuries and high patient census, nurse practitioners who provide care to burn patients often work longer hours and spend less direct time with patients. In an attempt to compensate, patient education, family support, and participation with committees and professional organizations is diminished. Educational time and opportunities to attend conferences are negatively affected. Some of the nurse practitioners felt as if their ability to practice primary care skills had been compromised as a result of being confined to a specific patient population and often felt as if their skills as nurse practitioners were not being fully utilized.

Barriers to Practice

One-third, or eight, of the nurse practitioner participants reported that *unfamiliarity with the nurse practitioner role* by other health care providers and staff created the most frustrating difficulties to them. They identified that burn center and hospital personnel were often unclear about the role of the nurse practitioner as compared to that of the physician assistant. In addition to the staff, the public's perception of the role of the nurse practitioner was often confused with the role of the physician assistant.

Restrictive barriers were another cited concern. State laws governing the nurse practitioner's scope of practice, including restrictive or lack of prescriptive authority and lack of reimbursement for services, were frequently cited barriers to practice as noted by four (16.6%) of the respondents. Due to the imposed restrictions, these nurse

practitioners reported having to find a physician or a physician assistant to sign their prescriptions. This added impediment impacted time management issues, a lack of patient satisfaction, and role ambiguity scenarios.

Another commonly occurring barrier to practice was *professional relationships*. Lack of administrative support and lack of recognition by physicians and other staff were cited as concerns. Better communication and collaboration with physicians were cited by two (8.3%) of the nurse practitioners as an area that needed improvement. This lack of collaboration, communication, and recognition were more pronounced when interacting with physicians outside of the nurse practitioners' practice context. For instance, it was noted that radiologists refused to give x-ray results to the nurse practitioner over the phone and other specialty physicians would not accept patient consultations or referrals from the nurse practitioners. One-half of the nurse practitioners felt that their facilities and employers needed to provide better financial support and encouragement for continuing education. Although they wanted to attend conferences and other events offered for continuing education and professional development, obtaining time-off from work was difficult. Many of the nurse practitioners cited a problem with having someone available to cover in their absence, or they were not economically able to cover expenses to attend a conference. Findings from the MNPJSS were congruent with these stated barriers to practice as the intrapractice partnership/collegiality, freedom to question practices/decisions, and sense of value criteria ranked as the lowest job satisfaction variables (see Table 2).

Benefit to the Burn Community and Patients

Ten (41.6%) of the nurse practitioner participants believed that their willingness and ability to provide more thorough, *holistic patient care, with an emphasis on teaching and anticipatory guidance*, was the greatest benefit to their patients. Since the nurse practitioner was more accessible to patients and families they often acted as a liaison between the patient and physician, with one-third of the nurse practitioners categorizing this factor as a major role component. Acutely ill patients, who often required lengthy hospitalizations, allowed the nurse practitioners the opportunity to provide continuity of care, as well as to provide follow-up care in ambulatory burn clinics. Working in burn facilities, many of which were major leaders in research and evidence-based burn practice, allowed the nurse practitioners to practice in dynamic contexts. These contexts provided many opportunities for research participation and role development which the nurse practitioners felt contributed to better patient outcomes. The nurse practitioners all felt that they contributed to greater public and community awareness of the role of the nurse practitioner in burn care through their participation in community outreach and education programs, and provision of staff in-services, education and support.

Changes to Improve Job Satisfaction

Responses and suggestions for change were in congruence with the identified job dissatisfiers and barriers to practice that were frequently encountered by the participants. Six (25%) felt that having another nurse practitioner employed in the same facility was definitely needed due to increasing patient census and acuity. Restrictive state laws governing nurse practitioner scope of practice was cited by two (8.3%) of the nurse practitioners along with the need to remove these restrictions. Interview data from all 19

participants indicated a need for increased community awareness of the nurse practitioner role and a need for increased recognition from peers and other colleagues.

Summary

Findings from both the telephone interviews and written responses indicated that the nurse practitioners worked an average of 52 hours a week and were employed by either the hospital or a single physician or group of physicians. The participant's roles and work activities were diverse with the majority of time being spent in either direct patient care activities such as physical assessment, performing various procedures, and patient teaching, or indirect patient care activities such as dictating, writing notes and orders, interpreting diagnostic data, and rounding with other team members. Other job activities included participating in research and various committees, as well as providing staff and community education.

Staying abreast on technological developments, especially in relation to wound care, dressings, and pharmacological advancements, was cited as a challenge to practice for some of the NPs. Pain management and managing the highly complex psychological and medical needs of burn patients often presented a challenge, as well. Lack of staff and high acuity, coupled with increasing patient admissions to burn centers, contributed to time management issues. Some of the participants indicated that being confined to a specific patient population often limited their overall skills. Unfamiliarity with the nurse practitioner role by others, restrictive state laws, and the lack of support from administration and other physicians were cited as barriers to practice by the participants.

The nurse practitioners stated that their willingness and ability to provide family-centered, holistic care to their patients provided the most benefit. As a result of this, the

nurse practitioner often became the “point of contact” between physicians and patients and families. Through participation in community outreach programs and by providing staff education, the participants all felt that they contributed to greater public and community awareness regarding the role of the nurse practitioner in burn care. Less restrictive state laws, hiring more nurse practitioners, and increased recognition and awareness from peers and physicians were suggested changes to improve job satisfaction.

Findings from the MNPJSS indicated that the participants were overall “satisfied” with their job. The five highest ranking job satisfaction factors were sense of accomplishment, immediate supervisor, level of autonomy, sense of value, and freedom to question practices/decisions. The five lowest ranking job satisfaction factors were compensation for services outside normal duties, monetary bonuses, reward distribution, patient scheduling procedures/policies, and time off to serve on committees.

CHAPTER 5
IMPLICATIONS FOR NURSING AND NEED FOR FURTHER
RESEARCH

In order to answer the first research question, this study investigated the evolving role of nurse practitioners working in burn care and examined their characteristics and activities related to this role. The second research question related to perceived support structures, difficulties and barriers to practice, as well contributions to burn patients and future implications were also differentiated using the MNPJSS tool and interview data.

Of the 131 burn centers contacted, 40 of these centers employed a total of 69 nurse practitioners. Study packets were mailed to all 69 participants with 24 (34.78%) returning the completed packets from 16 burn centers. In an attempt to quantify job satisfaction among burn nurse practitioners, the 24 participants completed a nurse practitioner job satisfaction tool, called the MNPJSS that rated 44 variables on a 6-point Likert scale. A semi-structured phone interview was conducted with nine (37.5%) of the participants with an additional 10 (41.6%) of the participants completing the interview questions in a narrative format for a total of 19 participants providing interview data. The remaining five participants (20.8%) neither returned contact information for a phone interview nor completed the interview questions narratively. The interview questions allowed for a broader examination into the role of burn nurse practitioners and provided a more in-depth forum for understanding the role.

Data from the study demonstrated that the 24 nurse practitioners were generally “satisfied” with their employment context. Factors contributing to personal job satisfaction such as sense of accomplishment, autonomy and value, challenge,

recognition, flexibility and expanding skills (motivators) consistently identified as *intrinsic variables* ranked the highest while factors that centered on *extrinsic variables*, such as monetary issues, compensation, administrative policies, and scope of practice issues (hygiene factors) ranked lowest. These findings suggest that the nurse practitioners found job satisfaction through their meaningful interactions with patients, families and colleagues, deriving a sense of gratification and accomplishment from their work. However, even the lowest rated factors were still comparatively rated as “minimally satisfied” which indicated that these 24 nurse practitioners were generally happy with their salaries and employment arrangements in addition to really enjoying what they do.

Nurse practitioners who work in burn centers have definitely created a unique niche within the specialty. They have eased the increasing burden of physicians related to treating the complex surgical, medical and psychosocial needs of burned patients, as well as being a constant and familiar provider more easily accessible to patients and families. Physician shortages and lack of other human resources within burn intensive care units have provided nurse practitioners the opportunity to establish meaningful relationships with many burned patients and provide the vast teaching and anticipatory guidance that this special patient population require. These nurse practitioners have contributed significantly to community education and awareness regarding burn prevention and fire safety and have been instrumental as well in educating other healthcare providers about pre-transfer burn care and patient referral criteria. Many nurse practitioners in burn centers are able to foster collaborative arrangements with their patients that result in improved patient satisfaction and better patient outcomes.

The nurse practitioner participants felt valued and beneficial within their workplace. They stated that they were able to practice more autonomously with the freedom to make suggestions or question practices and felt a personal sense of accomplishment with what they do. While this group of burn 24 nurse practitioners practiced collaboratively with their own physician counterparts, they still experienced lack of recognition from physicians and other healthcare providers not familiar with them or their role in providing burn care management. This was similar to the experiences of nurse practitioners in other specialties (Brown, 1996; Carnwell & Daly, 2003; Marsden & Street, 2004; Tye & Ross, 2000). While burn care remains a challenge, the opportunity to participate in research and the advancements being made in burn care is exciting and worthwhile. Several of the employing burn centers are known for establishing standards of care for burn victims with significant contributions from their burn research data.

Conclusions

Nurse practitioners employed in burn centers enjoy their work. They spend the majority of their time engaged in direct patient care that affords them the opportunity to establish meaningful, therapeutic relationships with both the burned patient and their families. While the nurse practitioners gain the most satisfaction through less tangible, more intrinsic factors, it is important that the extrinsic factors not be ignored. Both employers and nurse practitioners need to focus more on improving those factors which will continue to enhance job satisfaction among nurse practitioners working in burn care. These nurse practitioners are essential to the well-being of patients who have suffered burn injuries. Nurse practitioners have been providing care in burn centers for at least 10 years and continue to create innovative solutions for patient problems, have excellent

patient outcomes with decreased costs, and are very well-suited to the team-approach required for burn care.

Implications for Nursing

Nurse practitioners who provide care to burn patients are encouraged to obtain certification in Advanced Burn Life Support and attend annual American and National Burn Association conferences and events. Since many burn centers are now evolving into wound care centers as well, nurse practitioners who provide burn care should seek certification and membership with the Wound, Ostomy, and Continence Association or the American Professional Wound Care Association. Many burn centers, as well as large, academically based hospitals, are making completion of a comprehensive burn/wound fellowship program mandatory for residency programs as well as for inexperienced providers of burn care (American Burn Association, 2005; Ennis, Valdes, & Meneses, 2004). It is through these various forums that advanced practice nurses are able to keep abreast with the latest technology, pharmacotherapeutic advances, and advances in wound and burn care.

Need for Further Research

There is more information that can be learned from further studies examining the role of nurse practitioners in burn centers. How does the role of nurse practitioners in providing care to burned patients differ from the role of other mid-level providers? How does the role of nurse practitioners in burn care differ from that of nurse practitioners providing care in other hospital or acute-care settings? Is there a difference in patient outcomes between burn centers that employ nurse practitioners as compared to burn centers without nurse practitioners? Is there a difference in patient outcomes between

NPs and other advanced practice health providers in burn care? What strategies can be implemented to increase NP job satisfaction in burn care? A much greater data base of studies needs to exist regarding nurse practitioners who work in burn centers and it is hoped that as a result of this study, other nurse practitioners who practice burn care will be encouraged to undertake further research to understand the impact of nurse practitioners within this burn center context.

Summary

The nurse practitioner participants in this study who practice in burn centers enjoyed their jobs, patients, and fellow burn team members. This particular population of nurse practitioners considered themselves “satisfied” with their role description, job activities, employers, pay, benefits, and employment arrangements. Their job descriptions and roles were diverse such as providing collaborative medical and surgical care with physicians to burn victims, assisting with burn surgical procedures, managing outpatient burn and wound clinics, participating in burn research, involvement with burn organizations and other professional events, and further development of their role. They gained the most job satisfaction through direct patient interaction and hands-on activities and had very good working relationships with their immediate physicians and peers. These nurse practitioners often served as the point of contact for patients and their families throughout their hospitalization and felt as if they provided significant teaching and anticipatory guidance. They felt that they contributed to burn patients and the burn community through providing burn injury awareness and prevention education and by promoting and sponsoring educational events for hospital staff and emergency personnel regarding immediate burn care treatment and referral criteria. Job dissatisfiers arose from

lack of human resources coupled with increasing burn center admissions and acuity as well as lack of recognition from other physicians and staff not familiar with the nurse practitioner role.

There is still much to be learned about this unique group of nurse practitioners who choose to practice in the often difficult and challenging environment of burn care. It is hoped that other burn practitioners will be encouraged to undertake a study to further explore this practice context.

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APPENDIX A
MISENER NURSE PRACTITIONER JOB
SATISFACTION SCALE

Misener Nurse Practitioner Job Satisfaction Scale

Instructions:

The following is a list of items known to have varying levels of satisfaction among NPs. There may be items that do not pertain to you, however, please answer them if you are able to assess your satisfaction with the item based on the employer's policy, i.e., if you needed it, would it be there?

HOW SATISFIED ARE YOU IN YOUR CURRENT JOB AS A NURSE PRACTITIONER WITH RESPECT TO THE FOLLOWING FACTORS?

V.S. =Very Satisfied

S. = Satisfied

M.S. = Minimally Satisfied

M.D. = Minimally Dissatisfied

D. = Dissatisfied

V.D. = Very Dissatisfied

	V.S	S.	M.S	M.D	D.	V.D
1. Vacation/Leave policy	6	5	4	3	2	1
2. Benefit package	6	5	4	3	2	1
3. Retirement plan	6	5	4	3	2	1
4. Time allotted for review of lab and other test results	6	5	4	3	2	1
5. Time allotted for answering messages	6	5	4	3	2	1
6. Your immediate supervisor	6	5	4	3	2	1
7. Percentage of time spent in direct pt. care	6	5	4	3	2	1
8. Time allocation for seeing patients (s)	6	5	4	3	2	1
9. Amount of administrative support	6	5	4	3	2	1
10. Quality of assistive personnel	6	5	4	3	2	1
11. Patient scheduling policies/practices	6	5	4	3	2	1
12. Patient mix	6	5	4	3	2	1
13. Sense of accomplishment	6	5	4	3	2	1
14. Social contact at work	6	5	4	3	2	1
15. Status in the community	6	5	4	3	2	1
16. Social contact with colleagues after work	6	5	4	3	2	1
17. Professional interaction with other disciplines	6	5	4	3	2	1
18. Support for continuing education (time/\$)	6	5	4	3	2	1
19. Opportunity for professional growth	6	5	4	3	2	1
20. Time off to serve on professional committees	6	5	4	3	2	1
21. Amount of involvement in research	6	5	4	3	2	1
22. Opportunity to expand your scope of practice	6	5	4	3	2	1
23. Interaction with other NP's including faculty	6	5	4	3	2	1
24. Consideration given to your opinion and suggestions for change in the work setting or office practice	6	5	4	3	2	1

25. Input into organizational policy	6	5	4	3	2	1
26. Freedom to question decisions and practices	6	5	4	3	2	1
27. Expanding skill level/procedures within your scope of practice	6	5	4	3	2	1
28. Ability to deliver quality care	6	5	4	3	2	1
29. Opportunities to expand your scope of practice and time to seek advanced education	6	5	4	3	2	1
30. Recognition of your work from superiors	6	5	4	3	2	1
31. Recognition of your work from peers	6	5	4	3	2	1
32. Level of autonomy	6	5	4	3	2	1
33. Evaluation process and policy	6	5	4	3	2	1
34. Reward distribution	6	5	4	3	2	1
35. Sense of value for what you do	6	5	4	3	2	1
36. Challenges in work	6	5	4	3	2	1
37. Opportunity to develop and implement ideas	6	5	4	3	2	1
38. Process used in conflict resolution	6	5	4	3	2	1
39. Amount of consideration given to your personal needs	6	5	4	3	2	1
40. Flexibility in practice protocols	6	5	4	3	2	1
41. Monetary bonuses that are available in addition to your salary	6	5	4	3	2	1
42. Opportunity to receive compensation for services performed outside of your normal duties	6	5	4	3	2	1
43. Respect for your opinion	6	5	4	3	2	1
44. Acceptance and attitudes of physicians outside of your practice (such as specialist you refer patients to)	6	5	4	3	2	1

Scoring the Misener Nurse Practitioner Job Satisfaction Scale

Total Score: Sum all 44 items

Subscales: Sum all the items indicated below for each subscale

Subscale	Items to include in scoring
Intrapractice Partnership/Collegiality	25,26,24,38,39,43,37,30,33,34,6,41,9,42
Challenge/Autonomy	32,36,7,13,28,29,35,27,12,40
Professional, Social, and Community Interaction	10, 14,15,16,17,23,31,44
Professional Growth	22,18,19,20,21,
Time	5,8,11,4
Benefits	1, 2, 3

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APPENDIX B
SELF-REPORT QUESTIONNAIRE
OR TELEPHONE INTERVIEW

SELF-REPORT QUESTIONNAIRE or TELEPHONE INTERVIEW

1. Please describe your role in the burn facility.
2. Do you have a job description? What input did you have into its development?
3. What are the expectations for your work week (i.e. - hours per week, call)?
4. What nursing education (degrees) do you have?
5. How many years have you been practicing as a nurse practitioner?
6. How long have you been practicing in burn care?
7. Do you work for a single physician, group, or for the hospital/burn center?
8. Who provides the evaluation for your work?
9. Do you have an employment contract? What participation did you have in its final development?
10. Describe a typical day at work-include procedures performed and primary activities.
11. What are the most challenging components of practicing as a nurse practitioner in burn care?
12. What changes do you feel are needed?
13. What types of difficulties or barriers to practice do you encounter?
14. What are your long term goals for practice? Do you expect to remain practicing in a burn facility or are you interested in another practice environment?
15. In what aspects do you think you as a nurse practitioner benefit the burn community and patients?
16. What responses have you gotten from staff, patients, and medical personnel?
17. What do you think the future is for nurse practitioners in this environment?

APPENDIX C
INFORMED CONSENT

INSTITUTIONAL REVIEW BOARD INFORMED CONSENT
Master of Science in Nursing Program
Georgia Southern University, Statesboro, Georgia

Dear Nurse Practitioner,

My name is Tish Myers and I am a Family Nurse Practitioner student in the Georgia Southern University MSN Program and a Registered Nurse at the Joseph M. Still Burn Center in Augusta, Georgia. I am conducting a thesis entitled **Nurse Practitioners in Burn Centers: An Exploration of the Developing Role**. I am excited about this project since very little (if any) research has been published regarding the role of nurse practitioners who choose to practice in the challenging setting of Burn ICU's. This study is an attempt to define this new role, identify barriers to practice, explore job satisfaction, and identify the advantages of having NP's practicing amongst this unique population.

Your burn facility has been identified as employing nurse practitioners from prior contact. This letter is to request your assistance in gathering data. There is, of course, no penalty should you decide not to participate. A two- step process will be utilized to gather the data. **Step 1:** Please complete the enclosed questionnaire and return it in the envelope provided or FAX it to me at 706-863-4403. Completion of this questionnaire will be considered permission to use your results in my study. Please be assured that your responses will be kept absolutely confidential. All of the questionnaires and return envelopes are identical. While none of the questions are designed to solicit sensitive information, you may refuse to answer any of them. **Step 2:** A short 30-minute interview by phone will be conducted to elicit in-depth data on your current role in the burn center (please see the interview guide enclosed). Step 2 is needed in order to provide a clearer understanding of the role of the NP in a burn center. If you agree to the phone interview, please do one of the following: 1) e-mail me at Myerstishrn@aol.com stating that you agree to the interview and provide me with a return e-mail address so that we can set up an interview time, or 2) complete the Interview Contact Form and mail it with the questionnaire or FAX it to me at 706-863-4403 so that I may contact you to set up an interview time. A copy of the study results will be sent to you once analysis is completed.

If you have any questions about this research project, please call me (Tish Myers RN, BSN) at (706) 863-4403 or email me at Myerstishrn@aol.com. You may also contact my thesis chair, Dr. Donna Hodnicki at 912-681-0017 or dhodnick@georgiasouthern.edu if you have any questions. If you have any questions or concerns about your rights as a research participant in this study they should be directed to the Institutional Review Board Coordinator at the Office of Research Services and Sponsored Programs at (912) 681-5465.

Let me thank you, in advance, for your assistance in helping to clarify the role of the NP in the burn center. The results should be of benefit to nurse practitioners perhaps interested in or already practicing in burn care as well as to the burn community. Please

accept this tea as a token of my appreciation for your participation. Relax and enjoy it after a particularly demanding day in the burn center.

Respectfully,

Tish Myers RN, BSN; MSN FNP student

APPENDIX D
INTERVIEW CONTACT FORM

**NP Participant Interview Contact Form
For Study Entitled**

Nurse Practitioners in Burn Centers: An Exploration of the Developing Role

Dear NP Colleague,

You have already completed Step 1 of the study. Step 2 is a phone interview which will take approximately 30 minutes. The semi-structured interview for the phone contact is in the packet of information you received. In order that I might contact you to complete Step 2 of the study, I am asking that you please provide me the following information so that I may contact you to set up a telephone interview time:

1. Your name:
 2. Your email address:
 3. Your contact telephone number:
 4. Which method is preferred to contact you to set up the interview time?
E-mail_____ Phone_____
 5. What day of the week and time is potentially the best to conduct the interview?
Monday_____ Tuesday _____ Wednesday____ Thursday____ Friday____
Saturday_____ Sunday_____
- Morning_____ Afternoon_____ Evening_____
- Other_____

I will contact you by e-mail or phone to set up an interview time. I will phone you at the agreed upon date and time. Thank you for your participation!!

Please return this form along with the study questionnaire in the return envelope provided, or fax both of them to 706-863-4403. I can be contacted at Myerstishrn@aol.com with any questions.

Kindest Regards,

Tish Myers RN, BSN
MSN FNP Student
Georgia Southern University