AIR FORCE FAMILY NURSE PRACTITIONER AND AIR FORCE FAMILY PHYSICIAN PERCEPTION OF THE FAMILY NURSE PRACTITIONER ROLE IN MILITARY OPERATIONS OTHER THAN WAR

Sandra Houlihan

APPROVED:

Chair: Dr Barbara Sylvia — Date

Co-Chair: Quannetta Edwards, COLONEL, USAF, NC — Date

Member: Lorraine Fritz, MAJOR, AN — Date

APPROVED:

F.G. Abdellah, Ed.D., Sc.D., RN, FAAN — Date

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
MAY 2000	**N/A**	**-**

4. TITLE AND SUBTITLE	
AIR FORCE FAMILY NURSE PRACTITIONER AND AIR FORCE FAMILY PHYSICIAN PERCEPTION OF THE FAMILY NURSE PRACTITIONER ROLE IN MILITARY OPERATIONS OTHER THAN WAR	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S) **Houlihan /Sandra**	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Uniformed Services University of the Health Sciences**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

World events and defense requirements have forced the military paradigm to shift. The inevitable result is that the Family Nurse Practitioner (FNP) will take on a more active role in the deployed setting, especially in missions involving civilians with primary care needs as seen in Military Operations Other Than War (MOOTW). What is the perception of the FNP of their role in these missions? What is the perception of the Family Physician (FP) of the FNP role in these missions? Because of the collaborative role the FNP will have with the family physician it is important to compare these perceptions to assure quality collaborative care. Biddles Role theory will be the framework used using a questionnaire as a strategy for studying behavior roles. The purpose of this study will be to describe and compare the perceptions of the two provider groups and examine the differences and similarities for statistical significance. A 65-item survey utilizing a 5 point Likert-type scale in which the FNPs and FPs are requested to rate their perceptions of the ability of the FNP to treat a variety of patients will be used. The survey population will consist of all CONUS active duty Air Force FNPs practicing in the role of FNP, and CONUS active duty Air Force FPs currently or previously working with, an AF FNP. Data will be analyzed using descriptive and inferential statistics. SPSS will be used to analyze the quantitative data provided by the FNP/FP responses. Responses to open-ended questions will be analyzed through a content analysis. This analysis will determine if there are differences between the FP and FNP and provide insight on the perceived training needed to prepare the FNP for the deployment role.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**SAR**	**120**	

DISCLAIMER STATEMENT

Department of Defense

This work was supported by the Uniformed Services University of the Health Sciences Protocol No. T061AG-01. The opinions or assertions contained herein are the private opinions of the author and are not to be construed as official or reflecting the views of the Department of Defense or the Uniformed Services University of the Health Sciences.

COPYRIGHT STATEMENT

The author hereby certifies that the use of any copyrighted material in the thesis entitled:

AIR FORCE FAMILY NURSE PRACTITIONER AND AIR FORCE FAMILY PHYSICIAN PERCEPTION OF THE FAMILY NURSE PRACTITIONER ROLE IN MILITARY OPERATIONS OTHER THAN WAR

beyond brief excerpts is with the permission of the copyrighted owner, and will save and hold harmless the Uniformed Services University of the Health Sciences from any damage, which may arise from such copyright violations.

ABSTRACT

World events and defense requirements have forced the military paradigm to shift. The inevitable result is that the Family Nurse Practitioner (FNP) will take on a more active role in the deployed setting, especially in missions involving civilians with primary care needs as seen in Military Operations Other Than War (MOOTW). What is the perception of the FNP of their role in these missions? What is the perception of the Family Physician (FP) of the FNP role in these missions? Because of the collaborative role the FNP will have with the family physician it is important to compare these perceptions to assure quality collaborative care. Biddles Role theory will be the framework used using a questionnaire as a strategy for studying behavior roles. The purpose of this study will be to describe and compare the perceptions of the two provider groups and examine the differences and similarities for statistical significance. A 65-item survey utilizing a 5 point Likert-type scale in which the FNPs and FPs are requested to rate their perceptions of the ability of the FNP to treat a variety of patients will be used. The survey population will consist of all CONUS active duty Air Force FNPs practicing in the role of FNP, and CONUS active duty Air Force FPs currently or previously working with, an AF FNP. Data will be analyzed using descriptive and inferential statistics. SPSS will be used to analyze the quantitative data provided by the FNP/FP responses. Responses to open-ended questions will be analyzed through a content analysis. This analysis will determine if there are differences between the FP and FNP and provide insight on the perceived training needed to prepare the FNP for the deployment role.

Key Words: **military nurse practitioner, deployment, perception.**

AIR FORCE FAMILY NURSE PRACTITIONER AND AIR FORCE FAMILY PHYSICIAN PERCEPTION OF THE FAMILY NURSE PRACTITIONER ROLE IN MILITARY OPERATIONS OTHER THAN WAR

by

SANDRA HOULIHAN, BSN

THESIS

Presented to the Graduate School of Nursing Faculty of

the Uniformed Services University of the Health

Sciences in Partial Fulfillment of the

Requirements for the

Degree of

MASTER OF SCIENCE

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

May 2000

TABLE OF CONTENTS

PREFACE/FORWARD x

DEDICATION xi

ACKNOWLEDGMENTS.....xii

LIST OF TABLES xiii

CHAPTER I.INTRODUCTION.....1

Background.....1

Research Questions.....6

Conceptual Framework.....7

Definitions.....8

Assumptions and Limitations.....9

Summary 10

CHAPTER II. REVIEW OF LITERATURE 10

Introduction 11

Physician Perception of the FNP Role.....12

FNP perception of the FNP Role.....14

Role Barriers 16

Role in MOOTW 18

Role and Collaboration 20

Summary 21

CHAPTER III. METHODOLOGY 23

Introduction.....23

Research Design.....23

Sample and Setting.....24

Measurement Methods.....24

Plan for Data Analysis.....26

Protection of Human Rights.....27

Summary 28

CHAPTER IV. DATA ANALYSIS 29

Introduction 29

Characteristics of Study Sample 29
Research Question 1.....31
Research Question 2.....44
Research Question 3.....57
Research Question 4.....61
Research Question 5.....63
Research Question 6.....64

Summary 65

CHAPTER V. SUMMARY.....66

Conclusions 66

Limitations 72

Recommendations for further research 73

Significance for Practice 73

Summary 74

REFERENCES 76

APPENDICES 81
APPENDIX A — Chart of Military Operations
APPENDIX B — Permission to Modify Tool
APPENDIX C — Survey for Family Nurse Practitioners
APPENDIX D — Survey for Family Physicians
APPENDIX E - Participation of Survey Cover Letter
APPENDIX F- Approval Letter from Institutional Review Board
APPENDIX G - Air Force Approval/Survey Control Number
APPENDIX H - Letter of Air Force Sponsorship/permission for Data Collection

PREFACE

This research was conducted to provide awareness regarding the role of the Air Force family nurse practitioner, and how their role can blend the essence of nursing with clinical medicine. The focus of this research was to determine if there was a significant difference in the perceptions of the nurse practitioner role during military operations other than war.

DEDICATION

I dedicate this work to all members of the armed services of which I am so very proud to be a member. Air Force nursing has given me the opportunity to not only fulfill but also exceed my life's goals and dreams. To my family who love, support and protect me from above; my father, brother, and my children Robbie, Cassie and Kristen, I dedicate my life.

ACKNOWLEDGEMENTS

I will forever be indebted to the members of my thesis committee for guiding me throughout the entire research project. Dr. Barbara Sylvia, Col. Quannetta Edwards, and Major Lorraine Fritz, generously gave of their time, knowledge and expertise and made it possible for this graduate student researcher to complete her first thesis.

I owe enormous gratitude to so many friends and family who endlessly gave me support, encouragement and the confidence to keep pushing forward. I especially thank my husband Tom, my mother and my sister, who patiently put up with the tears of frustration when I felt overwhelmed, and who were always there to offer unconditional love and support.

LIST OF TABLES

Table 1. Additional Medical Readiness Received ……..……..31

Table 2. Items That All FNP Respondents Perceive No Additional Supervision Required…….…….32

Table 3. Orthopedic Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)……..…….….33

Table 4. Orthopedic Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)……..……..34

Table 5. HEENT/Skin Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)……..……..34

Table 6. HEENT/Skin Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)…….....…....35

Table 7. Genitourinary/Reproductive Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)……....…..36

Table 8. Genitourinary/Reproductive Items That FNP Rspondents Perceive Would Not Require Supervision (% Response Option 1 and 2)…….....36

Table 9. Gastrointestinal/Environmental Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)……37

Table 10. Gastrointestinal/Environmental Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)……....37

Table 11. Cardiovascular/Respiratory Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)……..….38

Table 12. Cardiovascular/Respiratory Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)……...….38

Table 13. Gastrointestinal/Environmental Items That FNP Respondents Perceive May Require Supervision (Mean 1.50-2.49)……..39

Table 14. Gastrointestinal/Environmental Items That FNP Respondents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5)……...…40

Table 15. Orthopedic Items That FNP Responsents Perceive May Require Supervision (Mean 1.50-2.49) ……...40

Table 16. Orthopedic Items That FNP Responsents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5 ……41

Table 17. Skin/HEENT Items That FNP Responsents Perceive May Require Supervision (Mean 1.50-2.49) …….…….41

Table 18. Orthopedic Items That FNP Responsents Perceive May Require Supervision (% Response Option 2, 3, and 4)……...42

Table 19. Mental Health Items That FNP Responsents Perceive May Require Supervision (Mean 1.50-2.49) …….....42

Table 20. Mental Health Items That FNP Responsents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5)……..……..43

Table 21. Gastrointestinal/Environmental Items- FNP Would Require No Additional Supervision - Physician Perception (Mean 1.01- 1.49)……..……...…45

Table 22. Gastrointestinal/Environmental Items - FNP Would Require No Additional Supervision – Physician Perception (% Response Option 1 and 2)……..…....45

Table 23. Genitourinary/Reproductive Items- FNP Would Require No Additional Supervision - Physician Perception (Mean 1.01- 1.49)……....…46

Table 24. Genitourinary/Reproductive Items - FNP Would Require No Additional Supervision - Physician Perception (% Response Option 1 and 2)……..….46

Table 25. HEENT/Skin Items- FNP Would Require No Additional Supervision – Physician Perception (Mean 1.01- 1.49)……..……...…..47

Table 26. HEENT/Skin Items - FNP Would Require No Additional Supervision – Physician Perception (% Response Option 1 and 2)……..…….…...…47

Table 27. Orthopedic Items- FNP Would Require No Additional Supervision - Physician Perception (Mean 1.01- 1.49).. ……..……..…… 48

Table 28. Orthopedic Items - FNP Would Require No Additional Supervision - Physician Perception (% Response Option 1 and 2)……..48

Table 29. Gastrointestinal/Environmental - FNP May Require Supervised Practice – Physician Perception (Mean 1.51- 2.49)……..……49

Table 30. Gastrointestinal/Environmental - FNP May Require Supervised Practice – Physician Perception (% Response Option 2 and 3)……..……..…....50

Table 31. Respiratory/Cardiovascular - FNP May Require Supervised Practice - Physician Perception (Mean 1.51- 2.49)……..…….…...50

Table 32. Respiratory/Cardiovascular - FNP May Require Supervised Practice – Physician Perception (% Response Option 2 and 3)…….…….…...51

Table 33. HEENT/Skin - FNP May Require Supervised Practice - Physician Perception (Mean 1.51- 2.49) …….……....51

Table 34. HEENT/Skin - FNP May Require Supervised Practice - Physician Perception (% Response Option 2 and 3)……..…….....52

Table 35. Orthopedic - FNP May Require Supervised Practice - FP Perception (Mean 1.51- 2.49)……..…….…….……..…53

Table 36. Orthopedic - FNP May Require Supervised Practice - Physician Perception (% Response Option 2 and 3)……..…….……....53

Table 37. Genitourinary/Reproductive - FNP May Require Supervised Practice – Physician Perception (Mean 1.51- 2.49)……..…….….…..…54

Table 38. Genitourinary/Reproductive - FNP May Require Supervised Practice - Physician Perception (% Response Option 2 and 3)…….…...54

Table 39. Mental Health - FNP May Require Supervised Practice - FP Perception (Mean 1.51- 2.49)……..….……..…….…54

Table 40. Mental Health - FNP May Require Supervised Practice - FP Perception (% Response Option 2 and 3)…….……...55

Table 41. FNP Would Definitely Need Supervised Practice - FP Perception (Mean 2.5- 3. 49).....56

Table 42. FNP Would Definitely Need Supervised Practice - FP Perception (% Response Option 2, 3, 4 and 5)…….…….57

Table 43. Skin Symptom/Illness Items With Significant Difference Between FNP/FP Perception……..……..……..…59

Table 44. HEENT Symptom/Illness Items With Significant Difference Between FNP/FP Perception…….……..…….……59

Table 45. Orthopedic Symptom/Illness Items With Significant Difference Between FNP/FP Perception…….…….……59

Table 46. Gastrointestinal Symptom/Illness Items With Significant Difference Between FNP/FP Perception.…….…..…….……..60

Table 47. Respiratory Symptom/Illness Items With Significant Difference Between FNP/FP Perception……..…….……60

Table 48. Genitourinary/Reproductive Symptom/Illness Items With Significant Difference Between FNP/FP Perception…….…..…….……..……60

Table 49. Cardiovascular/Environmental Symptom/Illness Items With Significant Difference Between FNP/FP Perception.……..…….. 61

CHAPTER I: INTRODUCTION

Perhaps the five most significant words in the future of US military medical scenarios are Military Operations Other Than War . Military Operations Other Than War (MOOTW), missions that include humanitarian and peacekeeping activities and are increasing for the Air Force. Family Nurse Practitioners (FNPs) will be expected to participate in the medical readiness part of these missions. However, the FNPs are new providers for the Air Force and as such little is known about their role or the Family Practice physicians (FPs) perceptions regarding FNP preparation, experiences or barriers with treating and managing the disease/illness commonly seen during MOOTW. Additionally, little is known regarding the comparability of perceptions between the two provider groups in relation to FNP preparation.

The purpose of this comparative descriptive study was to describe and compare the Air Force Family Nurse Practitioner and Air Force Family Practice physicians perceptions regarding preparation, experience and barriers of the FNP in treating and managing the types of disease/illness frequently seen during MOOTW.

Background

In the 1960s, non-traditional military activities were called stability operations or counter insurgencies; the 1980s called them called low intensity conflicts. Today these missions are known as Military Operations Other Than War (MOOTW). The name may have changed, but these undertakings are nothing new. They have not been spawned or even accelerated, as some commentary would suggest, by the post-Cold war environment (Yates, 1997, p.51). Throughout its history the US military has engaged in

nontraditional operations far more frequently than conventional war (Appendix A). According to Army General John M. Shalikashvili, Chairman of the Joint Chiefs of Staff,

> Our military profession is increasingly changing its focus to a complex array of MOOTW (Hunt, 1996, p.3).

With this change the military medical community is undergoing the most widespread upheaval in its history. It must support not only more frequent and lengthier deployments like the now extended mission in Bosnia, but must also expand its focus beyond combat service support to include medical care of all ages and both sexes in the US and abroad. To meet these challenges, US military medical team members are emphasizing preventive medicine, sanitation, and prompt attention to medical problems. Additionally, in MOOTW, the US military medical services must increase their ability to manage gynecologic/obstetric, pediatric, and geriatric patient conditions that accompany the expanded focus. Currently, deployable medical units such as Air Transportable Hospitals (ATHs) are staffed, equipped and trained with a primary mission of providing combat service support. However, these units are not prepared to meet the diverse challenges of humanitarian assistance and disaster relief scenarios. The deployment of personnel in MOOTW presents different problems to those experienced in conventional warfighting situations (Owen, 1998). Evidence from the medical facilities involved with MOOTW indicated that the majority of patients presented with minor medical complaints such as athletes foot and other fungal skin infections, respiratory diseases, ENT problems, sports injuries and training injuries. Initially, the role of the FNP and how it fits into the military health care system as a whole resulted in confusion, unrealistic expectations and conflict (Maroon, 1976; Southby, 1980).

Today, the role of the FNP in the civilian sector has expanded to all types of outpatient and inpatient settings. The Navy has mirrored this process by utilizing the FNP in MOOTW. However, the role has never been fully developed in the Air Force despite adequate credentials to manage and treat the type of patient commonly seen in MOOTW. This may be partially due to the new role of the FNP as a primary provider. The FNP may not have assimilated into the role as well in the military setting due to their newly developed status. FNPs are capable of providing ambulatory care, guidance, and counseling for families, consultation and referral, and working collaboratively with physicians. They have the skills to do physical exams, take medical histories, diagnose and treat common acute minor illnesses or injuries, order and interpret lab tests and x-rays, and counsel and educate clients (Fuller, 1996). Their training includes not only a wide range of primary care illnesses of the adult, but they can also assess children at risk for the same. FNPs can provide many of the same diagnostic and management services as most primary care physicians and can refer to the physician when a client presents with a problem beyond the scope of their practice.

In several studies, NPs in the non-military setting were reported as effectively and appropriately managing most of all necessary primary care services (Avorn, Everitt, & Baker, 1991; Mandelblatt et al., 1993; Salkever, Skinner, Steinwachs, & Katz, 1982; Sox, 1979; Spitzer, 1974). The clinical services provided by NPs and physicians, according to a 1996 report by the Office of Technology Assessment, were virtually indistinguishable except that NPs focused more on health promotion activities and scored higher on quality of care measures than did their physician colleagues. The population the civilian NP provides care for parallels the population seen in MOOTW. Air Force physicians, nurses

and health care providers in a variety of specialties (physical therapy, lab, X-ray, and pharmacy) have been involved in MOOTW providing a variety of medical care to people all over the world. However, the FNP has not been utilized in the past.

Iraq, Somalia, South America, the Philippines, Madagascar, Mongolia, the Pacific Islands, and Africa are just some of the areas in which there has been a humanitarian military presence in the past few years (Cashman, 1994). Medical readiness training exercises use military medical personnel to provide care in undeserved areas similar to refugee camps. Military medical personnel as well as a variety of civilian counterparts have and will provide medical care for refugee and Third World populations for humanitarian missions.

The Air Force has already recognized the need to fully utilize the FNP. The Air Force now has plans to require two FNPs as providers on the primary care treatment unit type code. However the FNP has not been utilized in the deployed setting in the past and therefore it is important to assess data on FNPs and FPs perception concerning the use and preparation of the FNP for this type of readiness mission. Moreover, because of the collaborative role FNPs have with other health care providers, particularly family practice physicians, their perceptions are equally important to assure quality multidisciplinary care. The physician s attitude, acceptance, and perception of the abilities of the nurse practitioner play an invaluable role in helping or hindering their utilization. Their teamwork is essential in shaping the quality of our military medical care, and as a part of an ever-shrinking military force, we will need to become more effective and efficient in providing care.

The FNP has not been fully tasked and not yet identified as a specialty in manpower staffing reports. Data has shown the Air Force FNPs have deployed but were utilized as clinical nurses, not as primary care providers. Fully utilized, FNPs offer an important primary care resource to the military health system. As FNPs move into the primary health care role in greater numbers, a concern with their job performance, role responsibility, scope of practice and acceptance by physicians, becomes the central focus. Collaboration between nursing and medicine requires that each party fully understand the scope of the others practice (Weiss, 1985).

Research has been conducted on physician perceptions of the FNP. Fottler (1979) discovered civilian physicians were not willing to utilize FNPs because they perceived them to not have applicable roles in various specialty settings and were concerned with the advanced nursing role in general. Similarly, Bradford (1989, p. 721) noted that many physicians attitudes were a barrier to nurse practitioner utilization because it was felt that the primary role of the nurse was to carry out the physicians orders. It is of vital importance that physicians and practitioners have a clear vision of their independent, as well as their collaborative roles. The military practitioners' ability to participate effectively in defining their deployed role will increasingly require a unified approach. A key factor for the successful utilization of the FNP in MOOTW is the physicians acceptance of the expanded role (Cairo, 1996, p. 412). No research has been published concerning the perceptions of AF family physicians compared to the FNP s perception regarding the utilization of the FNP in MOOTW. Therefore, the aim of this comparative descriptive study was to compare and describe the Air Force Family Nurse Practitioner and Air Force Family Practice physicians perceptions regarding preparation, experience

and barriers of the FNP in treating and managing the types of disease/illness frequently seen during MOOTW.

Research Questions

To assess the perceptions of current Air Force FNPs and Air Force FPs the following research questions were addressed during this study:

1. To what extent do Family Nurse Practitioners (FNPs) perceive that they are prepared in the treatment and management of symptoms frequently seen during Military Operations Other Than War (MOOTW)?
2. To what extent do Family Practice physicians (FPs) perceive the FNPs are prepared in the treatment and management of disease/illness frequently seen during MOOTW?
3. Is there a significant difference in FPs vs FNPs perception of FNP preparation in the treatment and management of the disease/illness frequently seen during MOOTW?
4. What are the barriers to practice that the FNPs perceive would limit or restrict their use during a MOOTW?
5. What are the barriers to practice that the Family Practice physicians perceive would limit or restrict the use of the FNP during a MOOTW?
6. Do FNPs perceive the current training received prepares them for utilization in MOOTW?

Conceptual Framework

Before the role of the FNP in MOOTW can be determined conditions that affect that role need to be investigated. These conditions may include physician acceptance and expectations, and the relationship between the FNP and FP. Therefore Biddle s role theory was the framework that guided this study. A role is a position that has an expected performance of the individual that holds it. According to Biddle s Role theory: Expectation, identities, and behaviors (1979), role theory is a repertoire characteristic of a person or position; a set of standards, descriptions, norms, or concepts held for behaviors of a person or social position; or a position itself (p. 258). Roles are induced through the sharing of expectation for role behavior. Those who exhibit the role are stimulated to do so because they learn what behaviors are expected of them, and through their own expectations of the role.

The emergence of NPs as primary care providers has involved a major change in the nurse s role. Still, there is no single definition of the NP role. Even though the possibility has been recognized that differing expectations of providers might create difficulties, there are few studies of the extent of agreement on roles that actually exist in practice (Miller, 1977). This further aggravates the role confusion. In Vacek and Ashikaga s (1980) study of variables affecting nursing roles, they concluded that the NP role must be defined in terms of specific functions if meaningful assessments of impact are to be made.

Physician s training does not prepare physicians to manage some of the changes necessary in order to accommodate the expanded role of the NP. Yet there is an increasing number of physicians serving as clinical preceptors. Perceptions of these

preceptors towards the NP role and role preparation will greatly impact the opportunities provided. (Ford & Kish, 1998) Hupcey (1993) states that the presence or absence of support from either coworkers or superiors (physicians, practitioners, nurses administration, and other staff) was the overwhelming factor influencing NP role performance (p.56). Biddles role theory was used to describe the understanding/ perception of the role of the FNP, not only by the FNP themselves but also by the family practice physicians. Clear, precise roles and expectations are needed to carry out the mission regarding MOOTW because of the varied setting, varied populations, varied cultures, and varied disease/illness.

Definitions

For the purpose of this study the following definitions were used:

Role Perceptions

Theoretically it is defined as behaviors that the subject believes are actually exhibited by nurse practitioners. Operationally defined, role perception is the subjects belief on the ability of the FNP to treat/manage each of the 65 specific symptom/illness areas on a 5-point scale.

Role Preparation

Theoretically it is defined the as training/experience received by the Family Nurse Practitioner that enables the FNP to perform in the role. Operationally defined it is the training/experience the FNP has received which enables them to treat/manage each of the 65 specific symptom/illness areas.

Air Force Family Physicians

An active duty Air Force physician that completed a residency in Family practice, who works in any of the non-inpatient clinics.

Air Force Family Nurse practitioner

The American Nurses Association describes a FNP as a primary health care provider providing nursing and medical services to individuals, families and groups, with an emphasis placed on health promotion and disease prevention.

Military Operations Other Than War (MOOTW)

Operations to include humanitarian responses to natural and human created disasters, peacekeeping activities in conditions of civil strife, support efforts for nation building, and refugee protection.

Assumptions/Limitations

It was assumed that all FNPs on the list practice in the current role as a provider and within their legal scope of care. The number of years of experience as a practicing FNP was collected in the demographics section of the questionnaire. Because a mailed survey was used validation of responses could not be ascertained. It was assumed that all answer the questions honestly. Another limitation was that the symptoms used in the tool were assessed from recent MOOTW and these conditions may vary from mission to mission.

Participants were selected from the USAF service from an inventory list received through the Freedom of Information Act (FOIA) at the Military Personnel Center, Randolph AFB, Texas. Due to FOIA regulation, only a listing of continental United States (CONUS) personnel was available. In addition, a few FNPs were slotted in adult nurse practitioner billets and were not present on the listing of FNPs. Findings were limited therefore because they are generalizable only to the accessible population of continental United States (CONUS) AF FNPs in FNP billets.

Summary

In summary, the role of the FNP evolved in the civilian sector as patients with non-acute conditions increased, freeing medical staff to care for those that specifically needed their expertise. Military operations other than war (MOOTW) play a significant role in the military, and therefore it is imperative to have a medical team in place to meet their needs. The AF FNP can play a significant part in MOOTW. Documentation has proven that FNPs can effectively provide 80-90% of the primary care services currently being provided by physicians (Sinclair, 1997). This quantitative study will utilize the comparative descriptive research design using the conceptual framework of Role theory, to survey the Air Force FP and FNP perceptions of the FNP role during MOOTW, and perceived barriers of the role.

CHAPTER II: REVIEW OF LITERATURE

Introduction

The purpose of this study was to determine if the FNP has a role in military deployments, specifically in MOOTW, through a comparison of the perceptions of FNPs and FPs regarding the ability and preparedness of the FNP in caring for the types of patients commonly seen during MOOTW. This literature review is limited to those studies addressing the utilization of the FNP for this role. More specifically this chapter will address physician perception of the FNP role, FNP perception of the FNP role, role barriers, FNP role in MOOTW, and role and collaboration.

As military medicine transforms to a system of managed care it is simultaneously reducing the size of the force, closing facilities, and meeting the challenge of more frequent and longer deployments. The Air Force must continue to provide the high quality medical care as it has in the past. To do so the Air Force must find solutions to meet these demands, and the FNP is part of the solution for a lighter, leaner Air Force. The movement of advanced practice nurses into primary care settings has risen out of today s need for cost-effective, quality health care. The role of the FNP was perceived as one that included health teaching, obtaining a health history, counseling, making home visits and participating in evaluation of care. Nurse practitioners can manage common ailments as well as chronic stabilized conditions of patients with effectiveness comparable to that of physician management of the same conditions. The American Academy of Nurse Practitioners definition states: Nurse practitioners are primary health care providers they provide nursing and medical services to individuals, families and groups emphasis is placed on health promotion and disease prevention as well as the

diagnosis and management of acute and chronic diseases Teaching and counseling individuals, families and groups are a major part of nurse practitioners activities (American Academy of Nurse Practitioners, 1993, p. 1).

Physician Perception of the FNP Role

In the past there has been an increasing number of physicians serving as clinical preceptors for advanced practice nurses. The perceptions of these preceptors toward the APN role and role preparation will likely impact the educational opportunities provided (Ford & Kish, 1998). Ford and Kish examined the family physician s perception of the FNP and found that physicians had more comfort with task delegation to physicians assistants (PAs) over the NP due to perceived longer training of the PA. Of the 10 respondents, three faculty physicians had negative perceptions toward the NP, even though only one of the three had any one-on-one experience with NPs. This physician based his concerns on his past experience with NPs during prior military service. He promoted the use of the medical model in the education of the PA versus the nursing model of the NP. This same physician expressed concern that the diagnostic skills of the NP might cause the incorrect clinical path to be adopted for practice. Reputation of, more than experience with (p. 167) NPs appeared to shape perceptions. Residents had much less experience with the role of the FNP than the faculty physicians, but still gave only situational approval of the FNP role. Other research has shown that physicians with little direct experience with FNPs are more likely to be negative regarding the role (Connelly & Connelly, 1979; Dorsey & Morrison, 1991; Mauksch & Campbell, 1987).

A survey of physicians by Louis and Sabo in 1994 indicated that there was an increased need for information related to the roles and functions of FNPs. Of the 432

respondents, 74% saw a need for FNPs. However, only 50% indicated that they would hire the FNP. The authors suggested the existence of a lack of clarity about the appropriate role of the FNP. The survey also revealed a preference for the FNP over the physicians assistant (PA). Respondents believed that the FNP was more likely to optimize quality of care and less likely to increase liability risk.

Cairos (1996) study of five board certified emergency room physicians in a community hospital, found four of five physicians stated that they did not know what an advanced practice nurse was. The fifth stated that it was when nurses go on in their education past the minimum requirements and go into management, quality assurance (Q A), and things like that. All stated that they were unsure of the educational requirements for NPs. When asked what NPs do all were unsure of the total scope of practice, but thought that such things as examinations, treatment of minor problems, ordering lab tests, and performing histories and physicals were applicable. One stated that NPs could only function in geographical areas where there are no physicians available (p. 414). All stated that because NPs did not attend medical school, they were not prepared to deal with many clinical problems independently. Similar reports have reported that physicians were most concerned about the FNPs ability to manage commonly occurring acute illnesses, managing stabilized chronic diseases and prescribing medications despite evidence that FNPs were reported to effectively and appropriately manage most of all necessary primary care services (Avorn et al., 1991; Manderblatt et al., 1993, Salkever et al., 1982; Sox, 1970; Spitzer, 1974). Physician influence may explain the lack of the utilization of NPs in hospitals and other health care institutions where physicians have power over staffing patterns (Louis & Sabo, p.114).

The only study involving Air Force physicians perceptions of the FNP was found in an unpublished thesis by Capt. Tracy Wingert (1998). Her study of the perceptions of emergency department physicians toward collaborative practice with nurse practitioners in an emergency department setting concluded that the general perception was that physician oversight was needed when a FNP worked in the emergency department. Air Force physicians, while willing to work with nurse practitioners in Emergency Departments, still perceived the role of the nurse practitioner as dependent; one in which the physician would ultimately be in charge (p. 34). A physician also stated that he would have to develop a certain comfort level in the working relationship before he would not feel it necessary to review everything done by the nurse practitioner. Wingert s study also discovered a significant knowledge deficit regarding the role of the FNP. Her study revealed that physicians felt the FNP should perform like a physician assistant (p. 38). Wingert concluded that education of physicians regarding the role of the nurse practitioner is "seen as a very significant finding of study for successful role expansion to occur (p. 49).

FNP Perception of the FNP Role

There are few studies that have specifically examined the role perception and job satisfaction of civilian nurse practitioners. The results of a study by Lauver published in 1989 confirmed that NPs and physicians perceive separate roles for their profession. The study was composed of 15 civilian NPs and 15 physicians who had been practicing together for at least one year in an ambulatory primary care practice. Role perception was measured by the use of patient care vignettes. The study revealed that NPs felt most comfortable in the areas of psychosocial and health education skills, areas of low

morbidity, and those with well established protocols. NPs rated vignettes that necessitated caring behaviors, such as counseling and patient education, as well as limited curing behaviors for low-risk medical conditions (hypertension, pharyngitis) as highly appropriate to their role. The study concluded that NPs and physicians recognized their roles to be interrelated and that role overlap was present within their own practice.

A 1998 study by Chung-Park described the perceptions of the role and job satisfaction of Navy NPs. A total of 907 questionnaires investigating the NP role and job satisfaction were mailed to 29 Naval hospitals and clinics in the US and overseas. The study revealed that job satisfaction varied based on the amount of autonomy, acceptance, and recognition by others. Thus satisfaction may be influenced by the degree of collaboration between physicians and nurse practitioners, greater perceived needs by physicians for NP services in a particular setting, physician advocacy for expanding the NP s scope of practice and with the degree of limitations on admission privileges (p. 30). Job dissatisfaction consisted of being placed in a billet outside one's specialty and having to take on more administrative tasks or to leave their clinical billet as they gain seniority. The findings of the survey show that the NP s role in some practice settings was not fully utilized, simply because of misconceptions or different expectations about NPs (p. 31). Chung-Park concluded that greater NP job satisfaction and more productive performance could be enhanced by open discussion and acceptance by other Nurse Corps officers and providers. NPs would then become even more effective resources and invaluable assets. Additionally, each organization needed to provide communication about the NPs expected function, especially to those who lack direct experience with NPs or have an unclear perception of the NP s role.

Role Barriers

The effectiveness of NPs as primary care providers has been well documented in hundreds of studies. However, significant barriers to their independent practice remain in the area of opposition from physicians. Nowhere in the physician s training is there adequate training for managing some of the changes necessary in order to accommodate to the expanded role of the nurse practitioner (Herzog, 1976). In Davidson, Fletcher, and Earps 1981 study, it was suggested that there was an overall acceptance by the physician of the nurse practitioner. A survey of 239 general practice physicians in Southern California, found that the majority of physicians (90%) had some knowledge of nurse practitioners prior to the survey. Of this group, 43 percent of the physicians felt a FNP would enhance the delivery of health care in their practice and 47 percent were favorable to the concept of the FNP. Despite these favorable responses, the physicians acknowledged that they would continue to have difficulty with sharing analysis and clinical decision making. Physicians were more willing to delegate functions related to patient teaching, counseling, providing patients with information about their diagnoses and plan of care, and managing stable chronic illness conditions. Interestingly enough, patient education and counseling have been a function of nursing for years.

In a 1998 study by Beisel of 134 NPs in Alaska, found that role and expertise, effective communication, and respect and trust were overwhelmingly important factors in job satisfaction and performance (p. 513). Results of the study revealed that those factors were very important and vital in the development of a collaborative relationship with physicians. Forty-eight percent stated that most physicians did not fully accept them until they worked with them and verified their knowledge and skills. Eighty-four percent

of the NPs successfully negotiated their roles when there were clear role boundaries between NPs and physicians. Clear role boundaries prevented the usual turf battles related to NPs performing the same functions as physicians. The common thread in all responses was the focus on group dynamics and organizational characteristics. It is important to note that unlike the military setting the majority of NPs worked in a private practice office or clinic in which individuals or small groups might have been the focus; and large, bureaucratic leadership was almost nonexistent.

In spite of the studies proving their effectiveness, NPs still need to convince the public that they have the knowledge and skills to give high quality care. Currently, the media portray physicians as God-like providers of all aspects of care while NPs are essentially invisible (Martin, 1997). Organizations like the American Medical Association (AMA) are furiously attacking what they consider to be nursings encroachment into areas beyond its level of expertise (Freudenheim, 1997, p. 4). Despite nursing s track record as *the* primary providers of health care (Buppert, 1995, p. 48), FNPs are still in the position of having to justify their existence. Even then, many physicians did not accept the FNP role as a legitimate role separate from medicine, because they felt economically threatened (Martin, 1997). As Buppert pointed out, acceptance of the nurse practitioner by the physician is crucial to the successful utilization of nurse practitioners in the delivery of health care.

The most basic direct threat to the role of the FNP is the alteration in the power relationship between the physician and the nurse as she leaves her traditional role behind and becomes a nurse practitioner (Jones, 1997). This causes role anxiety. In an unrecognized power struggle, arguments over issues can never be resolved. The perceived

competition adds to the role conflict. This conflict threatens the nurse. In her transition she must be able to perceive the physician as a teacher and supporter.

Role expectation poses a second threat. In a relationship between the two providers, things run smoothly when the expectations of both are met. When a significant difference in expectations between the provider groups exists confusion occurs regarding what actually constitutes the FNP role. Complementarity of role expectation is likely to increase understanding of one another s problems, goals and needs and is necessary to facilitate high performance and better quality patient care. The literature review supports the contention that role conflict, role ambiguity, and resistance to the nurse practitioner role does exist in our present health care system. The conflict, however, arises in relationship to what kinds of role functions can and should be delegated to nurse practitioners. Educators can play a key part in assisting NPs with role enactment by developing comprehensive orientation and education programs aimed at minimizing role strain (Murray, 1998).

Role in MOOTW

Until recently there has not been a requirement on any of AF unit type codes (UTCs) for nurse practitioners of any kind. However with a restructuring of the UTC requirement, a requirement for FNPs on the Primary Care Treatment UTC now exists. Currently there are five Primary Care Treatment UTCs in the AFMS inventory with two FNPs assigned to each. (Lt Col. Gavron, personal communication, 25 March, 1999). This study should be seen as providing some indication of necessary utilization of the FNP during MOOTW. While many AF FNPs have deployed in the med-surg/ICU nursing role, to date, none have deployed in the provider role. The military paradigm is

continually changing and the role of the FNP must change with it. With 10 FNPs assigned to UTC positions, it is imperative that FNPs and FPs are knowledgeable about the role of the FNP in MOOTW. Successful change in the FNP role requires the acceptance by the family physician, an invaluable member of the collaborative team, and the ability of the FNP to acquire the new role. The training the FNP receives should enable them to be utilized to the full potential for which they are capably prepared. Changes should be initiated to extend the role of those who are being underutilized. There is little documentation of the FNP role in the military services during armed conflict or humanitarian deployment. In an unpublished thesis focused on the role of the NP in military deployment, Capt. Michelle Lavey (1996) recommended that the deployment role of the NP be re-evaluated. The NP should have a defined mobilization role, including training in triage and trauma (p. 61). Through a qualitative study she was able to document that primary care, preventive health maintenance, and education of the troops are essential foundations of health care during a deployment. In addition to their roles in primary care, Lavey found that the FNPs were involved in emergency and trauma care, the delivery of culturally sensitive care and addressing the needs of female troops.

An interesting fact was that during past deployments there were no specific billets for AF NPs. The NPs were utilized in their previously held Air Force Specialty Code. Many were deployed as medical surgical staff nurses, critical care nurses, or in administrative roles. Only through the NPs ability to market themselves to their commanders were they allowed to fill positions in sick call and emergency services. Physicians were found to be very supportive of the advanced practice role in this environment.

Capt. Elizabeth Larino conducted a similar study in 1997. The unpublished thesis also

dealt with the FNP in the deployed role. She emphasized the importance of understanding the role of the FNP in the context of the military healthcare system. Medical readiness involves knowing what resources are available prior to deployment. It is important that unit commanders have knowledge of FNP capabilities and awareness of the valuable medical assets available to their unit (p. 51). Documentation proves that FNPs could provide the levels of care needed in military mobilization teams, which include diagnosis and treatment of minimal injury patients and preparing patients for evacuation.

In the April 1997 Nightingale Express, the Air Force Nurse Corps Director s Newsletter, Major John Murray, a pediatric advanced nurse practitioner, described how his skills were utilized during a recent mission. He was deployed to the mountains of Peru with a team of nine physicians in December 1996. During the mission, he provided health care to over 50 children a day, set up education programs, and mentored nurses and medical students that would continue with the medical care once the team departed. He stated that missions such as these are just one of the many ways to demonstrate how APNs can be utilized to meet the medical readiness needs of the Air Force (p. 4).

Role and Collaboration

Collaborative practice is described as health professionals functioning as partners within a flat hierarchy rather than the highly structured practice hierarchy dominated by physicians (King 1990, p.20). It further indicated that while some physicians recognize the potential benefit of FNPs in their practice, many may continue to be unwilling to let go of the physician-dominated hierarchy. Collaboration between FPs and FNPs requires that each party fully understands the nature and scope of each other's practice (Weiss, 1985). King (1990) surmised that physicians and nurses often spend their entire careers

side by side without ever really understanding each other. There are significant differences between the two professions, and yet many of the objectives are the same; the promotion of positive patient outcomes and improved health care for all consumers. Hupcey (1993) states that the presence or absence of support from either coworkers or superiors (physicians, nurse practitioners, nurses, administration, and other staff members) was the overwhelming factor influencing nurse practitioner role performance (p. 184). As pioneers, NPs struggle against powerful odds to negotiate their professional identity and the symbolic meaning of their roles as valued health care providers. Successful utilization means the acceptance of NP s as primary care providers, including the ability to practice independently in a collaborative role with physicians.

Summary

The research supports the positive impact the FNP has made in the civilian arena providing high quality patient care. The development of expanded roles for nurses has gained momentum as the possible solution to the medical manpower shortage. This would require a change in role for both physicians and nurse practitioners since medicine and nursing are interdependent in their functioning. Change in the role of one service would have a profound effect on the functioning of the other. Successful role change must be predicated on two factors; the physician s acceptance of the nurse s performing the function and the ability of the nurse to acquire the skills of the new function. If the NP/FP team is to succeed in resolving barriers and truly expand the scope of health care services, the decision making process is one of the most critical variables. Whenever there is change in any part of a system, it affects all parts of that system, it seems inevitable that

reciprocal change must be experienced in other parts of that system (Hopkins, 1977, p.56).

Little current research has been conducted about the perceptions of physicians toward FNPs. The review of literature was limited in the number of civilian study s and deficient in the number of military study s regarding this issue. This study attempts to examine the perceptions of military (specifically Air Force) FPs and FNPs to determine if there are areas of significant difference that should be addressed regarding the FNPs role in MOOTW. It is imperative that the whole health team be aware of and understand the role of the nurse practitioner. It is of vital importance that FPs and FNPs have a clear perception of their independent, as well as their collaborative responsibilities as a valuable resource in military health care.

CHAPTER III: METHODOLOGY

Introduction

This research study was designed to describe and compare the Air Force family nurse practitioners (FNPs) and Air Force family practice physicians (FPs) perceptions regarding the preparation, experience and barriers of the FNP in treating and managing the types of disease/illness frequently seen during military operations other than war. It also explored the perceptions of FNPs in the area of preparation and training to be utilized in MOOTW. This chapter will discuss the research design and research methods used to include sampling, instrumentation, protection of human rights, and plan for data analysis.

Research Design

A comparative descriptive methodology was used to conduct this study. A questionnaire was used to survey the perceptions of family physicians and FNPs toward the FNP role in MOOTW. The comparative descriptive design examines and describes differences in variables in two or more groups that occur naturally in the setting, and may be used to examine differences between or among groups (Burns & Grove, 1997, p. 252). To address the issue of specific tasks appropriate to the FNP role, both respondent groups were asked to examine a list of 65 tasks, ranging from routine primary care duties to minor emergency room skills. The responses were then compared to determine if significant differences exist between FNP and FP perceptions regarding the utilization of the FNP in treating specific illness/disease categories. The questionnaire was mailed to all current CONUS active duty AF FNPs and a random selection of active duty FPs.

Sampling and Setting

The population consisted of all current active duty Air Force FNPs and a sample of Air Force family physicians located at the same location of the FNP. This study was limited to only Air Force subjects for convenience. The criteria includes CONUS active duty Air Force FNPs currently practicing in the role of FNP, or having functioned in the role of an FNP within the past five years. The sample also included CONUS active duty Air Force FPs currently working with or who have worked with a nurse practitioner in the past. Exclusion criteria included FNPs not currently working in the role, or those who had been functioning in a different role for over five years (i.e. administration, staff nurse), and those FNPs and FPs stationed at overseas locations. The listing was obtained from the Air Force Personnel Center, Randolph AFB, Texas. Since the FNP role is relatively new to the Air Force the numbers involved in the study were predicted to be small but current.

Respondents were notified of the nature and purpose of the study through the use of a cover letter mailed with the survey. The respondents were informed that there are no right or wrong responses to the questionnaire, and that this researcher was interested in learning their perceptions of the FNP role during MOOTW, as well as the types of barriers to the role. The questionnaires were coded for tracking purposes only. Respondents were given 30 days to respond. If no response was received a second survey was mailed.

Measurement Methods

A survey is a technique of data collection in which a questionnaire may be distributed to gather data. A previously developed tool was modified to measure perceptions regarding the ability of the FNP to treat illnesses and symptoms that have commonly

occurred during recent military deployments. In developing this tool, the researcher modified a questionnaire developed by Larino (1996), in a thesis which explored the attitudes of current Air Force outpatient physicians regarding the utilization of FNPs. Permission was received by the author to use and modify the tool (Appendix B). Larino obtained estimates of the reliability and validity for the original tool. Estimates of test-retest reliability obtained by administering the tool to three USUHS FNPs twice, a week apart resulted in a ninety-seven percent agreement between the two administrations of the tool. Three Uniformed Services University of the Health Sciences (USUHS) FNP faculty members provided supporting evidence of the content validity of the original tool in that the faculty rated the conditions presented in the questionnaire and found the levels of care to be appropriate for the usual FNP scope of practice.

For this study 80% of the original questionnaire remained unchanged. After the literature review and personal communication with several individuals experienced in the area of MOOTW the questionnaire was modified and expanded in the disease/illness listing. The content validity index (CVI) was determined by two Navy FNPs with experience and expertise in humanitarian mission deployment specifically in the role of FNP utilization in MOOTW. They were asked to rate the relevance of each condition to the FNP role on a 4-point scale. Navy FNPs were selected in view of Naval experience in MOOTW. A content validity index of 0.94 was achieved which is adequate for the purposes of this instrument (Burns & Grove, 1993). Reliability of the tool was measured using the test-retest method. It was administered to five Army FNPs and five Army FPs twice, a week apart. The Army FNPs and FPs were selected because of similarities in

function and to not reduce the limited AF population for the study. Reliability of the modified questionnaire was 0.91, an acceptable percent agreement.

The modified tool (Appendices C and D) consists of three parts The first part contains a number of demographic items that are directed toward eliciting descriptive information concerning deployment, preparation for deployment, and the perceived FNP role in deployment. The second part identifies the perceived barriers to the utilization of the FNP, and the type of preparation necessary to prepare the FNP for a role in deployment in MOOTW. Part Three contains 65 items in the areas of: orthopedics, 15 (23%); HEENT, 10 (15%); Skin, 9 (14%); Respiratory, 4 (6%); Cardiovascular, 3 (5%); Genitourinary, 2 (3%); Reproductive health, 5 (8%); Gastrointestinal, 9 (14%); Environmental, 5 (8%) and Mental health, 3 (4%). The survey utilizes a 5-point Likert-type scale ranging from had much experience, would require no additional supervision to had no experience and would not feel at all comfortable in treating the patient in which the FNPs and FPs are requested to rate their perceptions of the ability of the FNP to treat each in a variety of patients.

Plan for Data Analysis

The study sample was limited to Air Force FPs and FNPs working at a continental United States (CONUS) location and expressing their consent to participate in the study. Thirty-five FNPs and forty-five FPs were mailed questionnaires. FPs currently located at a medical facility in which FNPs were utilized were selected at random. A larger number of physicians were selected because of a suspected lower response rate. The data were obtained by distributing 80 questionnaires. Sixty-five were returned, 28 of 35 FNP questionnaires (75%) and 37 of 45 FP questionnaires (82%) for an overall response rate of 81%, an acceptable return rate for mailed questionnaires. Typically mailed

questionnaires have a 25—30% return rate (Burns & Grove, 1993). All returned questionnaires were used in the study, but some respondents opted not to answer certain short answer type items of the instrument.

The procedure for data analysis proceeded in three steps. First, descriptive statistics were used on all demographic characteristics of the two groups surveyed. This included age, gender, years in practice, years in military and current certifications presented in Part I, section A, of the questionnaire. Section B of Part I described the deployment data of the two groups. This information is presented using a table with an analysis of the number of respondents that have deployed the type of mission the role deployed in and if FNPs performed in the provider role. Second, all data for research question one and two were entered into SPSS for Windows 8.0 and presented through a calculation of the mean, and standard deviation scores for each of the 65 items in Part III of the family nurse practitioner/family physician survey. Research question three, which asks if there is a significant difference between the two provider groups regarding the level of preparedness in the treatment and management of the disease/illness frequently, seen during MOOTW between the two groups (FNPs/FPs) was analyzed statistically using the t-test for independent samples (0.05 level of significance). Third, a content analysis of the responses provided by the FNPs and FPs of the perceived barriers to the utilization of the FNP in MOOTW as noted in Part II was examined to discuss research questions four and five.

Protection of Human Rights

Confidentiality was maintained and participation was voluntary as explained in the cover letter (Appendix E). Participant consent was implied if the questionnaire was returned and completed. No identifying information was requested on the questionnaire to ensure the participants confidentiality. There was no risk to participants. The proposal was submitted to the Uniformed Services University of the Health Sciences (USUHS) Institutional Review Board (IRB) (Appendix F). A survey control number was obtained from the Air Force IAW AFI 36-2601, AF Personnel Survey Program (Appendix G). Permission for data collection from Air Force Members was also received (Appendix H). These were obtained before data collection started.

Summary

This chapter provided the research design that was used to conduct this comparative descriptive study. The sample included active duty Air Force family physicians and family nurse practitioners currently located at a CONUS location only. A revised tool was utilized after determining reliability and validity. The questionnaire elicited information about the perceived abilities of the FNP to manage/treat specific symptom/illness commonly seen during MOOTW, perceived degree of preparation, experience and barriers. Chapter four contains the data collected in this study.

CHAPTER IV: DATA ANALYSIS

Introduction

Every member of the military feels the impact of increased tasking to support job one — Medical Readiness. At a moment s notice military members must be ready, willing and able to deploy; sometimes in the most austere of conditions. The Navy has used the Family Nurse Practitioner (FNP), with their wealth of clinical knowledge and skills, in many humanitarian missions. (Chung-Park, 1998). However, the Air Force with a comparable asset has utilized the FNP only in the clinic setting. The perceptions of the potential role the FNP would have in a deployment should be examined because of the great impact those perceptions have on the utilization of the FNP. The purpose of this study was to describe and compare the perceptions of the Air Force FNP and Family physician (FP) concerning the utilization and preparation of the FNP in Military Operations Other Than War (MOOTW). In chapter four a description of the sample and data analysis specific to each research question was provided.

Characteristics of Study Sample

The total sample of 65 respondents was predominantly Family Physician, 37 (56.9%), with 28 Nurse Practitioner respondents (43.1%). It should be noted that the total numbers of FPs in the Air Force greatly surpass the total number of FNPs available for the study. Ages of the FP sample ranged from 27 to 51 with a mean of 35 years, while the FNP ages ranged from 31 to 54 with a mean of 40 years. Among the FP respondents, the years in specialty practice spanned from 1 to 24, with a mean of 5.4 years while the FNPs ranged from 1 to 22, with a mean of 2.7 years. Fourteen of the 37 FP respondents and only one of the FNP respondents had been in the role greater than four years. Of interest is the

difference between the two groups in the number of years of baseline education (years in physician/nursing field prior to specializing in family practice). Thirty-one of the 37 FP respondents had 10 years or less (mean 5.4) in the medical field whereas twenty-six of the 28 FNP respondents had 10 years or greater (mean 16.9) in the nursing field. Comparing the total time in the military it was found that 27 FPs had been in the military 10 years or fewer (mean 7.8), while 20 FNPs had been in the military 10 years or more (mean 13.7) There were three courses that were attended by several of the FNP respondents not included in Table 1. These include the combat trauma nursing course (CNTC)-14.3%, flight school-14.3% and battlefield nursing-17.9%. These courses greatly enhance the level of knowledge and comfort in understanding the treatment of patients in a deployed setting. The comparison of additional training is summarized in Table 1.

Table 1.

Additional Medical Readiness Training Received

Training	Family physician (n=37) percent yes	Nurse practitioner (n=28) percent yes
Advanced Cardiac Life Support	100	100
Advanced Trauma Life Support	64.9	3.6
Combat Casualty Care Course	2.7	42.9
Pediatric Advanced Life Support	75.7	42.9
Prehospital Trauma Life Support	5.4	3.6
Neonatal Resuscitation	27.0	0
Hyperbaric Training	2.7	0

The deployment experience of the 65 respondents was also compared. In the collection of FNPs, eight (28.6%) had deployed. Three (10.7%) of the eight deployments were considered humanitarian missions. When asked in what role they were deployed seven responded that they had deployed prior to becoming an FNP, and 1 had deployed and been utilized as a nurse practitioner. In the physician group 10 (27%) of the 37 respondents had been deployed, six (16.2%) of which were humanitarian missions. All of the physicians were deployed and utilized as primary care providers. In response to the question if deployed today do you perceive a role for the FNP in the mission? 31 (84%) of the physicians responded yes , and six (16%) were not sure . When the FNPs were asked, If deployed today, do you feel prepared? 25 (89.3%) of the FNPs responded yes they were adequately prepared, one (3.6%) responded partly , and two responded no (7.1%). The newness of the FNP in the AF warrants data on the perceptions of future roles in MOOTW concerning FNPs and FPs.

Research Question One

The first research question in this study was: To what extent do Family nurse practitioners (FNPs) perceive they are prepared in the treatment and management of symptoms/illness frequently seen during Military Operations Other Than War (MOOTW)?

Additional training by primary health care providers cannot help but improve overall medical readiness and better prepare them for deployment. As summarized in Table 1, the FNP does not have the same degree of advanced medical readiness training as the family practice physician. However, prior to receiving advanced training, the FNPs had a variety of experiences as registered nurses. These experiences may magnify the comfort level of their ability to treat the symptoms/illness. Sixty-five symptom/illness items commonly seen

in MOOTW were listed on the questionnaire. For each symptom/illness category respondents were requested to select from five response options; (a) had much experience/no supervision needed, (b had some experience/may need supervision, (c) had little experience/definitely need supervised practice, (d) had no experience/ would need review and supervised practice, (e) would not feel comfortable in treating the patient. Specifically, respondents were asked to circle the number corresponding to the response option that most closely represented their perception regarding their ability to treat a specific symptom/illness. A summary of the responses from the FNPs, revealed that there were five of the 65 items that 100% of the FNPs indicated they had much experience and would not require supervision These items are listed in Table 2.

Table 2.

Items That All FNP Respondents Perceive No Additional Supervision Required

Symptoms/illness	Mean	SD
Gastroenteritis	1.000	.000
Pharyngitis	1.000	.000
Rhinitis	1.000	.000
Otitis Media	1.000	.000
Sinusitis	1.000	.000

N=28 *Scale: 1= have much experience, no supervision needed

The remainder of the symptom/illness items were organized by both body systems and perceived degree of supervision required. The midpoint between the options determined the experience/supervision category into which they were to be organized. For example, those items with a mean value of 1.01-1.49 would be considered option 1— would not require

require additional supervision. There were an additional 39 items with a mean value of 1.01 to 1.49. The 11 items in the orthopedic category are presented in Table 3.

Table 3.

Orthopedic Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49).

Symptom/illness	Mean	SD
Orthopedics		
Abrasion	1.07	.3780
Back pain (injury)	1.39	.4973
Back pain (low)	1.25	.7993
Neck pain (postural)	1.28	.5345
Condromalacia	1.39	.4973
Tendonitis	1.17	.3900
Bursitis	1.25	.4410
Sprain	1.14	.3563
Muscle pull	1.25	.4410
Ingrown toenail	1.35	.6215
Contusion	1.07	.2623

N=28

Of the 28 FNP respondents, there were only three who responded with a rating of 3 (had little experience/definitely need supervised practice), one in the category of neck pain (postural) and two in the category of ingrown toenail. One response with a rating of 5 (would not feel at all comfortable in treating the patient) was selected in the symptom/illness category of back pain (low). The percentage of responses for response option 1 and response option 2 in Table 4.

Table 4.

Orthopedic Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Abrasion	96.4	3.6
Back pain (injury)	60.7	39.3
Back pain (low)	85.7	10.7
Neck pain (postural)	75.0	21.4
Chondromalcia	60.7	39.3
Tendonitis	82.1	17.9
Bursitis	75.0	25.0
Sprain	85.7	14.3
Muscle pull	75.0	25.0
Ingrown toenail	71.4	21.4
Contusion	92.9	7.1

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision

There were 3 items in the HEENT category and 6 items in the skin category with a mean value of 1.01-1.49, equivalent to response option 1- no additional supervision Needed. These items are presented in Table 5.

Table 5.

HEENT/Skin Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)

Symptom/illness	Mean	SD
HEENT		
Conjunctivitis	1.14	.3563
Eye infection	1.21	.4179
Sty	1.07	.2623
Skin		
Cellulitis	1.14	.3563
Blister	1.03	.1890
Animal bites	1.42	.5727
Insect bites	1.10	.4163
Sunburn	1.03	.1890
Fungal infection	1.07	.2623
Bacterial infection	1.10	.3150

N= 28

Of the 28 FNP respondents there were only two that responded in the rating of 3 (had little experience/definitely need supervised practice), one in the category of animal bite and one in the category of insect bite. The percentage of responses in the body systems HEENT and skin with a response option of 1 and 2 are presented in Table 6.

Table 6.

HEENT/Skin Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)

SYMPTOMS/ILLNESS	% Response option 1	% Response option 2
HEENT		
Conjunctivitis	85.7	14.3
Eye infection	78.6	21.4
STY	92.9	7.1
Skin		
Cellulitis	85.7	14.3
Blister	96.4	3.6
Animal Bite	60.7	35.7
Insect bite	92.9	3.6
Sunburn	96.4	3.6
Fungal infection	92.9	7.1
Bacterial infection	89.3	10.7

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision

Tables 7 and 8 present the 5 items in the reproductive category with a mean value of 1.0-1.49, equivalent to response option 1- no additional supervision needed . There was only 1 item in the category of genitourinary with this specific mean value.

Table 7.

Genitourinary/Reproductive Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)

Symptoms/illness	Mean	SD
Reproductive		
Pregnancy	1.39	.5669
Contraception	1.14	.3563
STD (Male)	1.03	.1890
STD (Female)	1.03	.1890
Birth control	1.10	.3150
Genitourinary		
UTI	1.03	.1890

N=28

Of the 28 FNP respondents there was only one response in the rating of 3 (had little experience/definitely need supervised practice) and that was in the category of pregnancy. The percentage of responses with a response option of 1 and 2 are presented in Table 8.

Table 8.
Genitourinary/Reproductive Items That FNP Respondents Perceive Would Not Require Supervision (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Reproductive		
Pregnancy	64.3	32.1
Contraception	85.7	3.6
STD (male)	96.4	3.6
STD (female)	96.4	3.6
Birth control	89.3	10.7
Genitourinary		
UTI	96.4	3.6

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision

In the gastrointestinal and environmental there were a total of six items in the mean Value range of 1.01-1.49 which is equivalent to response option 1- no additional supervision needed . These categories are presented in Tables 9 and 10.

Table 9.

Gastrointestinal/Environmental Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)

Symptom/illness	Mean	SD
Gastrointestinal		
Diarrhea	1.07	.2623
Abdominal pain	1.32	.4756
Nausea/vomiting	1.03	.1890
Environmental		
Headache	1.07	.2623
Dehydration	1.17	.6118
Fever	1.03	.1890

N=28

Of the 28 FNP respondents there was only one response in the rating of 3 (had little experience/definitely need supervised practice) and that was in the category of dehydration. The percentage of responses with a response option of 1 and 2 are presented below.

Table 10.

Gastrointestinal/Environmental Items That FNP Respondents Perceive Would Not Require Supervision (%Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Diarrhea	92.9	7.1
Abdominal pain	67.9	32.1
Nausea/vomiting	96.4	3.6
Headache	92.9	7.1
Dehydration	89.3	7.1
Fever	96.4	3.6

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision

There were two items in the cardiovascular and four items in the respiratory categories that had a mean value of 1.01-1.49, equivalent to response option 1- no additional supervision needed . These are presented in Tables 11 and 12.

Table 11.

Cardiovascular/Respiratory Items That FNP Respondents Perceive Would Not Require Supervision (Mean 1.01-1.49)

Symptom/illness	Mean	SD
Respiratory		
Asthma	1.17	.4756
Bronchitis	1.03	.1890
Pneumonia	1.25	.4410
Wheezing	1.07	.2623
Cardiovascular		
Chest pain (wall)	1.21	.4987
Hypertension	1.14	.3563

N=28

Of the 28 FNP respondents there were only two responses in the rating of 3 (had little experience/definitely need supervised practice) one in the category of chest pain (wall) and one in the category of asthma. The percentage of responses with a response option of 1 and 2 are presented in Table 12.

Table 12.

Cardiovascular/Respiratory Items That FNP Respondents Perceive Would Not Require Supervision (%Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Cardiovascular		
Chest pain (wall)	82.1	14.3
Hypertension	85.7	14.3
Respiratory		
Asthma	85.7	10.7
Bronchitis	96.4	3.6
Pneumonia	75.0	25.0
Wheezing	92.9	7.1

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision

There were 21 remaining items in part III of the questionnaire that the FNP perceptions were had some experience and may need supervised practice , response option 2. For these items the midpoint between rating options 2 and 3 (mean value 1.50-2.49) determined the experience/supervision category into which they were organized. The tables are organized into body system categories. There were five items in the gastrointestinal category and two in the environmental categories that met these criteria and are presented in Table 13.

Table 13.

Gastrointestinal/Environmental Items That FNP Respondents Perceive May Require Supervision (Mean 1.50-2.49)

Symptoms/illness	Mean	SD
Gastrointestinal		
Dysentery	2.42	1.259
Food poisoning	1.71	1.049
Appendicitis	1.57	.6341
Intestinal parasites	2.14	.9705
GI Ulcer	1.53	.6929
Environmental		
Heat Exhaustion	1.64	.7310
Heat stroke	2.10	.9940

N=28

The percentage of responses with a response option 2- had some experience/may need additional supervision , response option 3- had little experience/definitely need supervised practice , response option 4- had no experience/need review and supervised practice and response option 5- would not feel comfortable in treating the patient are presented in Table 14.

Table 14.
Gastrointestinal/Environmental Items That FNP Respondents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5)

Symptoms/illness	% Response option 2	% Response option 3	% Response option 4	% Response option 5
Gastrointestinal				
Dysentery	32.1	10.7	25.0	3.6
Food poisoning	35.7	0	7.1	3.6
Appendicitis	42.9	7.1	0	0
Intestinal parasites	50.0	10.7	14.3	0
GI Ulcer	32.1	10.7	0	0
Environmental				
Heat Exhaustion	46.4	3.6	3.6	0
Heat stroke	46.4	10.7	14.3	0

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision; 3= had little experience/definitely supervised practice; 4= had no experience/need review and supervised practice; 5= would not feel comfortable in treating the patient

There were four items in the orthopedic category with a mean value of 1.50-2.49, equivalent to response option 2- had some experience may need supervision . These are presented in Table 15.

Table 15.
Orthopedic Items That FNP Respondents Perceive May Require Supervision (Mean 1.50-2.49)

Symptom/illness	Mean	SD
Orthopedics		
Fracture	2.21	.8759
Laceration	1.96	.9222
Dislocation	2.42	.9201
Neck pain (injury)	1.53	.5762

N=28

The percentage of responses with a response option of 2, 3, 4 and 5 for the orthopedic category are presented in Table 16.

Table 16.

Orthopedic Items That FNP Respondents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5)

Symptom/illness	% Response option 2	% Response option 3	% Response option 4	% Response option 5
Orthopedics				
Fracture	50.0	28.6	0	3.6
Laceration	28.6	28.6	3.60	0
Dislocation	42.9	28.6	14.3	0
Neck pain (injury)	46.4	3.6	0	0

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision; 3= had little experience/definitely supervised practice; 4= had no experience/need review and supervised practice; 5= would not feel comfortable in treating the patient

Table 17 includes five items with the mean value of 1.50-2.49 in the body systems of skin and HEENT. There were two items in the skin category. The three items in the HEENT were all related to eye symptoms/illness.

Table 17.

Skin/HEENT Items That FNP Respondents Perceive May Require Supervision (Mean 1.50-2.49)

Symptom/illness	Mean	SD
Skin		
Nonfreezing cold injury	1.82	.9449
Frostbite	2.00	1.0541
HEENT		
Keratitis	2.03	.8812
Foreign body	1.96	.7445
Corneal abrasion	1.67	.8189

N=28

For the skin and HEENT categories only response options 2 and 3 were selected with the exception of keratitis, corneal abrasion and frostbite that had selections in option 4. The percentage with a response option of 2, 3 and 4 are presented in Table 18.

Table 18.

Skin/HEENT Items That FNP Respondents Perceive May Require Supervision (% Response Option 2, 3, and 4)

Symptom/illness	% Response option 2	% Response option 3	% Response option 4
Skin			
Nonfreezing cold injury	10.7	0	0
Frostbite	35.7	10.7	14.3
HEENT			
Keratitis	35.7	28.6	3.6
Foreign body	46.4	25.0	0
Corneal abrasion	35.7	10.7	3.6

Scale: 1= had much experience/no supervision needed; 2= had some experience/may need supervision; 3= had little experience/definitely supervised practice; 4= had no experience/need review and supervised practice

All three of the items in the mental health category had a mean value of 1.5-2.49, equivalent to response option 2- had some experience/may need supervision and are presented in Table 19.

Table 19.

Mental Health Items That FNP Respondents Perceive May Require Supervision (Mean 1.50-2.49)

Symptom/illness	Mean	SD
Mental Health		
Depression	1.60	.8751
Alcohol abuse	1.92	.9400
Suicide	2.17	.9833

N= 28

The 28 FNP respondents did selected options 2-5 for all items in the category of mental health. The majority of responses were in response options 2 and 3. The percentage of responses is presented in Table 20.

Table 20.

Mental Health Items That FNP Respondents Perceive May Require Supervision (% Response Option 2, 3, 4 and 5)

Symptom/illness	% Response option 2	% Response option 3	% Response option 4	% Response option 5
Depression	32.1	3.6	7.1	0
Alcohol	42.9	17.9	0	3.6
Suicide	42.9	25.0	3.6	3.6

*Scale: 1= have much experience, no supervision needed; 2= had some experience/may need supervision; 3= had little experience/definitely need supervised practice; 4= had no experience /would need review and supervised practice; 5= would not feel comfortable in treating the patient

In addition there was one item in the genitourinary category, kidney stone, with a mean value of 1.71(SD .5998) and one item in the cardiovascular category, chest pain (internal) with a mean value of 1.78 (SD .9567) that met the criteria had some experience/may need supervision . Since these items were solitary in their category they were not presented in table format. Items that had a mean value of 2.50 to 3.49 represent items in which the FNP perceive they had little experience and would definitely need supervised practice. Mean values of 3.50 to 4.49 represent items that the FNP perceive they had no experience and would need review and supervised practice. Items with a mean value over 4.49 represent items that the FNP perceive they would not feel at all comfortable in treating the patient. There were no items in the 65 categories of symptoms/illness with a mean value of greater than 2.49.

Research Question Two

The second research question in this study was: To what extent do Family practice physicians (FPs) perceive the FNP is prepared in the treatment and management of symptoms/illness frequently seen during Military Operations Other Than War (MOOTW)?

Like the FNP respondents the FPs were asked to review a listing of sixty-five symptom/illness items commonly seen in MOOTW. For each symptom/illness category respondents were requested to select from five response options; (1) would require no additional supervision, (2) may need supervised practice, (3) definitely need supervised practice, (4) would need review and supervised practice, (5) would not feel comfortable in having the FNP treat the patient. Specifically, respondents were asked to circle the number corresponding to the response option that most closely represented their perception regarding the FNPs ability to treat a specific symptom/illness. The midpoint between the options determined the experience/supervision category into which they were to be organized. For example, those items with a mean value of 1.01-1.49 would be considered option 1— would not require additional supervision.

Unlike the FNP respondents there were no symptoms/illness areas in which there was 100% agreement that the FNP is prepared to treat the patient without requiring additional supervision. However there were19 items that the mean values were 1.0-1.49 representing items that FPs perceived the FNP would require no additional supervision. These symptoms/illness items were organized into body systems. Table 21 includes the two items in the gastrointestinal area and one in the environmental area.

Table 21.
Gastrointestinal/Environmental -FNP Would Require No Additional Supervision-Physician Perception (Mean 1.0-1.49)

Symptom/illness	Mean	SD
Gastrointestinal		
Gastroenteritis	1.3243	.6260
Diarrhea	1.3243	.4746
Environmental		
Dehydration	1.2703	.5082

N=37

There were 37 family physician respondents. Of these, there was only one response in the rating of 3 (definitely needs supervised practice), which was in the category of dehydration. Of interest was the selection of rating 4 (would need review and supervised practice) in the category of gastroenteritis. The percentage of response option 1 and 2 are presented in Table 22.

Table 22.

Gastrointestinal/Environmental -FNP Would Require No Additional Supervision-Physician Perception (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Gastrointestinal		
Gastroenteritis	73.0	24.3
Diarrhea	67.6	32.4
Environmental		
Dehydration	75.7	21.6

Scale: 1= Would require no additional supervision ; 2= May need supervised practice

There were three items in the category of reproductive health and one item in genitourinary that had a mean value of 1.01-1.49, equivalent to response option 1-would require no additional supervision. These are presented in Table 23.

Table 23.

Genitourinary/Reproductive -FNP Would Require No Additional Supervision-Physician Perception (Mean 1.0-1.49)

Symptom/illness	Mean	SD
Genitourinary		
UTI	1.3243	.4746
Reproductive		
Contraception	1.3784	.5940
STD (female)	1.3784	.5452
STD (male)	1.3243	.4746

N=37

Of the 37 physician respondents there were two categories with a response rating 3 (definitely need supervised practice); one in the category of STD female and one in the category of contraception. The percentage of responses with option 1 and 2 are presented in Table 24.

Table 24.

Genitourinary/Reproductive -FNP Would Require No Additional Supervision-Physician Perception (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Genitourinary		
UTI	67.6	32.4
Reproductive		
Contraception	67.6	27.0
STD (female)	64.9	32.4
STD (male)	67.6	32.4

Scale: 1= Would require no additional supervision ; 2= May need supervised practice

HEENT had the largest number of response with a mean value of 1.01-1.49, equivalent to response option 1- would require no additional supervision. There were also four items in the skin category that met the option 1 criteria. These are presented in Table 25.

Table 25.

HEENT/Skin-FNP Would Require No Additional Supervision- Physician Perception (Mean 1.0-1.49)

Symptom/illness	Mean	SD
Skin		
Fungal infection	1.2703	.4502
Sunburn	1.1081	.3148
Blister	1.1351	.3466
Insect bite	1.1892	.3971
HEENT		
Pharyngitis	1.1622	.3737
Rhinitis	1.0811	.2767
Otitis media	1.2432	.4350
Sinusitis	1.3514	.4840

N=37

Of the 37 physician responses, the percentage of response in option 1 and 2 are presented in Table 26.

Table 26.

HEENT/Skin -FNP Would Require No Additional Supervision- Physician Perception (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Skin		
Fungal infection	73.0	27.0
Sunburn	89.2	10.8
Blister	86.5	13.5
Insect bite	81.1	18.9
HEENT		
Pharyngitis	83.8	16.2
Rhinitis	91.9	8.1
Otitis media	75.7	24.3
Sinusitis	64.9	35.1

Scale: 1= Would require no additional supervision ; 2= May need supervised practice

There were a total of 14 items in the orthopedic category. Only three had a mean value of 1.01-1.49, equivalent to option 1- would require no additional supervision. These are presented in Table 27.

Table 27.

Orthopedic-FNP Would Require No Additional Supervision- Physician Perception (Mean 1.0-1.49)

Symptom/illness	Mean	SD
Orthopedic		
Contusion	1.4324	.6888
Muscle pull	1.3784	.5452
Abrasion	1.1622	.3737

N=37

The percentage of responses in option 1-'would require no additional supervision' and response option 2-'may need supervised practice' is presented in Table 28.

Table 28.
Orthopedic -FNP Would Require No Additional Supervision- Physician Perception (% Response Option 1 and 2)

Symptom/illness	% Response option 1	% Response option 2
Orthopedic		
Contusion	64.9	29.7
Muscle pull	64.9	32.4
Abrasion	83.8	16.2

Scale: 1= Would require no additional supervision; 2= May need supervised practice

In addition there was one item in the respiratory/cardiovascular category, bronchitis, with a mean value of 1.29 (SD .4634) that met the criteria would require no additional supervision. Seventy percent of responses were in option 1 and 29.7% in response option 2.

The midpoint between the options determined the experience/supervision category into which they were to be organized. For example, those items with a mean value of 1.50-2.49 would be considered option 2— may need supervised practice. There were 37 items with mean values between 1.5 to 2.49 which represent items the FPs perceived the FNP may require supervised practice. The environmental/gastrointestinal categories are presented in Table 29.

Table 29.

Gastrointestinal/Environmental - FNP May Require Supervised Practice- Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
Environmental		
Headache	1.83	.7270
Heat exhaustion	1.62	.7208
Fever	1.51	.6065
Gastrointestinal		
Dysentery	2.10	.6576
Food poisoning	1.70	.6176
Abdominal pain	2.43	.8347
Nausea/vomiting	1.54	.6496
Intestinal parasite	2.27	.8708

N=37

Table 30 summarizes the percentage of responses in option 2- may need supervised practice and response option 3- definitely need supervised practice .

Table 30.

Gastrointestinal/Environmental - FNP May Require Supervised Practice- Physician Perception (% Response Option 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
Environmental		
Headache	62.2	2.7
Heat exhaustion	35.1	13.5
Fever	40.5	5.4
Gastrointestinal		
Dysentery	56.8	27.0
Food poisoning	54.1	8.1
Abdominal pain	54.1	24.3
Nausea/vomiting	37.8	8.1
Intestinal parasite	59.5	13.5

Scale: 2= May need supervision; 3= definitely need supervised practice

Table 31 includes three items in the respiratory category and two items in the cardio-vascular category with a mean value of 1.50-2.49, equivalent to FNP may need supervised practice.

Table 31.

Respiratory/Cardiovascular - FNP May Require Supervised Practice- Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
Respiratory		
Wheeze	2.00	.7454
Pneumonia	2.24	.68833
Asthma	2.45	.7301
Cardiovascular		
Hypertension	2.29	.8119
Chest pain (wall)	2.37	1.0369

N=37

Table 32 summarizes the percentage of responses in option 2- may need supervised practice and response option 3- definitely need supervised practice.

Table 32.

Respiratory/Cardiovascular - FNP May Require Supervised Practice- Physician Perception (% Response Option rating 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
Respiratory		
Wheeze	54.1	18.9
Pneumonia	56.8	29.7
Asthma	51.4	18.9
Cardiovascular		
Hypertension	51.4	27.0
Chest pain (wall)	35.1	29.7

Scale: 2= May need supervision; 3= definitely need supervised practice

Table 33 includes six items in the HEENT category and five items in the skin category with a mean value of 1.50-2.49, equivalent to FNP may need supervised practice.

Table 33.

HEENT/Skin - FNP May Require Supervised Practice- Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
HEENT		
Conjunctivitis	1.51	.8699
Foreign body	2.51	1.071
Keratitis	2.40	1.012
Corneal abrasion	2.21	.9468
Sty	1.72	.8383
Eye infection	2.00	.8165
Skin		
Bacterial infection	1.72	.6791
Cellulitis	1.81	.8445
Animal bite	1.81	.8445
Non freezing injury	1.67	.7474
Frostbite	2.32	.9444

N=37

Table 34.

HEENT/Skin - FNP May Require Supervised Practice- Physician Perception (% Response Option 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
HEENT		
Conjunctivitis	27.0	0
Foreign body	51.4	16.2
Keratitis	45.9	21.6
Corneal abrasion	40.5	24.3
Sty	24.3	24.3
Eye infection	43.2	24.3
Skin		
Bacterial infection	51.4	2.7
Cellulitis	35.1	18.9
Animal bite	43.2	10.8
Non freezing injury	43.2	8.1
Frostbite	51.4	16.2

Scale: 2= May need supervision; 3= definitely need supervised practice

For conjunctivitis 24 of the 37 physician respondents (64.9%) responded with a rating of 1 (would require no additional supervision). However there were 10 respondents (27%) that responded with a rating of 2 (may need supervision) and three respondents (8.1%) with a rating of 4 (would need review and supervised practice). The category of orthopedics was the largest single body system with items in the mean value range of 1.50-2.49, equivalent to response option 2- may need supervision. These are presented in Table 35.

Table 35.

Orthopedic - FNP May Require Supervised Practice- Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
Orthopedics		
Sprain	1.75	.5965
Chondromalacia	1.67	.8516
Laceration	2.16	.7643
Tendonitis	1.56	.6028
Bursitis	1.97	.8329
Back pain (injury)	2.00	.7817
Back pain (low)	2.02	.9570
Neck pain (postural)	1.94	.9703
Ingrown toenail	1.51	.6921

N=37

The percentage of responses in option 2 and 3 are presented in Table 36. In each of the body system categories of genitourinary and reproductive health, there was only a single item with a mean value of 1.50-2.49. These are presented in Table 37.

Table 36.

Orthopedic - FNP May Require Supervised Practice- Physician Perception (% Response Option 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
Orthopedics		
Sprain	32.4	59.5
Chondromalacia	27.0	16.2
Laceration	64.9	13.5
Tendonitis	45.9	5.4
Bursitis	56.8	8.1
Back pain (injury)	40.5	29.7
Back pain (low)	35.1	21.6
Neck pain (postural)	37.8	18.9
Ingrown toenail	37.8	2.7

Scale: 2= May need supervision; 3= definitely need supervised practice

Table 37.

Genitourinary/Reproductive - FNP May Require Supervised Practice - Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
Genitourinary		
Kidney stone	2.43	.6028
Reproductive		
Birth control	1.56	.8673

N=37

The percentage of responses with a response option 2- may need supervised practice and to response option 3 definitely need supervised practice are presented in Table 38.

Table 38.

Genitourinary/Reproductive - FNP May Require Supervised Practice - Physician Perception (% Response Option 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
Genitourinary		
Kidney stone	54.1	40.5
Reproductive		
Birth control	24.3	8.1

Scale: 2= May need supervised practice; 3= Definitely need supervised practice

There were two items in the category of mental health with a mean value of 1.50-2.49. These are presented in Table 39.

Table 39.

Mental Health - FNP May Require Supervised Practice- Physician Perception (Mean 1.5-2.49)

Symptom/illness	Mean	SD
Mental Health		
Depression	2.43	.8673
Alcohol abuse	2.48	.9894

N=37

The percentage of responses with a response option of 2 and 3 are presented in Table 40.

Table 40.

Mental Health - FNP May Require Supervised Practice- Physician Perception (% Response Option 2 and 3)

Symptom/illness	% Response option 2	% Response option 3
Mental Health		
Depression	2.43	.8673
Alcohol abuse	2.48	.9894

Scale: 2= May need supervised practice; 3= Definitely need supervised practice

There were nine remaining items with mean values of 2.5 to 3.49, which represent items the FP perceived the FNP would definitely require supervised practice. There were no items with mean values from 3.50 to 4.49 or 4.50 to 5.0, representing items that the FPs perceive the FNP would require review and supervised practice and would not feel comfortable in having the FNP treat the patient consecutively.

Table 41.

FNP Would Definitely Need Supervised Practice-Physician Perception (Mean 2.5-3.49)

Symptom/illness	Mean	SD
Gastrointestinal		
Gastric ulcer	2.81	.8110
Appendicitis	2.97	.1150
Environmental		
Heat stroke	2.91	1.2991
Cardiovascular		
Chest pain (internal)	3.27	.9617
Orthopedics		
Fracture	3.18	.9079
Dislocation	3.18	.9672
Neck pain (injury)	2.54	.9005
Mental Health		
Suicide	3.37	1.1143
Reproductive Health		
Pregnancy	2.54	.9887

N=37

The percentage of responses with a response option of 2- may need supervised practice, 3- definitely need supervised practice, 4- FNP would need review and supervised practice, and 5- would not feel comfortable in having the FNP treating the patient. These are presented in Table 42.

Table 42.

FNP Would Definitely Need Supervised Practice-Physician Perception (Response Option 2,3,4,and 5)

Symptom/illness	% Response option 2	% Response option 3	% Response option 4	% Response option 5
Gastrointestinal				
Gastric ulcer	32.4	48.6	13.5	2.7
Appendicitis	29.7	35.1	16.2	10.8
Environmental				
Heat stroke	29.7	24.3	16.2	16.2
Cardiovascular				
Chest pain (internal)	21.6	43.2	21.6	13.5
Orthopedics				
Fracture	29.7	24.3	43.2	2.7
Dislocation	27.0	37.8	24.3	10.8
Neck pain (injury)	37.8	40.5	8.1	2.7
Mental Health				
Suicide	18.9	37.8	18.9	21.6
Reproductive Health				
Pregnancy	40.5	24.3	21.6	0

Scale: 2= May need supervised practice; 3= Definitely need supervised practice; 4= FNP would need review and supervised practice; 5= would not feel comfortable in having the FNP treat the patient

The majority of the items in the questionnaire that elicited the most favorable responses or areas in which the FP was comfortable in having the FNP treat the patient were in the HEENT and skin area as presented in Table 21. The area that received the greatest percentage of responses indicating the need for supervision was in the area of orthopedics as seen in Table 35.

Research Question Three

The third research question in this study was: Are there significant differences in FP and FNP perception of the FNP preparation in the treatment and management of the

disease/illness frequently seen during MOOTW?

In order to determine whether the differences between the means of the two provider groups are statistically different this researcher used the t-test for independent samples, with a level of significance or p-value set at 0.05. The t-test uses the standard deviation of the sample to estimate the standard error (Burns & Grove, 1993). The t-test is useful when small samples are available for analysis and sample groups do not have to be equal, which was the case in this study. A comparison was made of the responses between the two groups of providers. The most significant difference between the two provider groups was in the area of HEENT. As described in Table 2, 100% of the FNP respondents perceived to be prepared to treat patients in five of the 65 areas, four of which are in the HEENT system. Furthermore, the FNP group also perceived that they would not require supervision for an additional 39 items (Tables 3-12) for a total of 44 items of the 65 symptoms/illness. For the remaining 21 items the FNP group perceived they may need supervision (Tables 13-20). The FNP group had no items in response options 3-5. There were no categories in which all of the surveyed FPs perceived the FNP prepared and would not require additional supervision, but there were 19 items that, as a whole, FNPs would not require supervision (Tables 21-28). There were 13 of the 65 symptoms/illness that they perceive the FNP may require supervision (Tables 29-40) and nine items the FNPs would definitely require supervision (Tables 41-42). Of particular interest is the abundance of items in which there is a significant difference in the two group s perceptions. These are represented in Tables 43 through 49.

Table 43.

Skin Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-value	Significance
Sunburn	1.078	.027
Fungal infection	2.083	.000
Bacterial infection	4.029	.000
Blister	1.370	.004

Table 44.

HEENT Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-value	Significance
Sinusitis	3.834	.000
Pharyngitis	2.292	.000
Rhinitis	1.547	.001
Otitis Media	2.953	.000
Conjunctivitis	2.121	.000
Eye infection	4.646	.024
Sty	4.003	.000
Foreign body	2.409	.022

Table 45.

Orthopedic Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-value	Significance
Sprain	4.827	.002
Muscle pull	1.019	.041
Contusion	2.629	.000
Condromalacia	1.565	.003
Tendonitis	2.973	.000
Neck pain(injury)	5.155	.040
Neck pain (postural)	3.243	.033

Table 46.

Gastrointestinal Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-value	Significance
Appendicitis	5.726	.043
Diarrhea	2.539	.000
Gastroenteritis	2.736	.000
Dysentery	1.329	.000
Abdominal pain	6.304	.004
Nausea/vomiting	3.980	.000

Table 47.

Respiratory Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-VALUE	Significance
Bronchitis	2.811	.000
Pneumonia	6.701	.048
Asthma	8.070	.001
Wheezing	6.294	.002

Table 48.

Genitourinary/Reproductive Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-VALUE	Significance
Genitourinary		
Urinary tract infection	3.036	.000
Reproductive		
Contraception	1.858	.000
STD (male)	3.036	.000
STD (female)	3.179	.000
Pregnancy	5.491	.001
Birth control	2.674	.000

Table 49.

Cardiovascular/Environmental Symptom/Illness Items With Significant Difference Between FNP/FP Perception

Symptoms/illness	T-VALUE	Significance
Cardiovascular		
Hypertension	7.020	.000
Chest pain (wall)	5.474	.000
Environmental		
Fever	4.017	.000
Headache	5.314	.001

Additional questions in the study were related to the perceived barriers in the utilization of the FNP in MOOTW.

Research Question Four

The fourth research question in this study was: What are the barriers to practice that the FNP perceives would limit or restrict their use during MOOTW?

Just as the civilian nurse practitioner struggles with barriers to practice, so does the Air Force FNP. As the nurse practitioner moves into the primary health care role there is great concern with acceptance by the physician, role responsibility, and the scope of practice. Of the 28 FNP respondents who elected to provide comments regarding the perception of utilization of FNPs during MOOTW, there were several common categories of comments that emerged. Content analysis of comments revealed the following categories: (a) role perception, (b) deployment role, (c) training opportunity, (d) collaboration, and (e) gender. Examples of the comments specific to each category as well as the number of respondents providing that comment were provided.

Role Perception:
- There is a lack of knowledge about the role of the nurse practitioner no one knows what I can do. (8 responses)
- Everyone has a different perception on what my role is the docs in the clinic, the commander, even my patients. (8 responses)
- They think I have the same job as a PA but I don t! (4 responses)
- The higher ups have no understanding of the role of the FNP in the clinic let alone in a deployment. (12 responses)

No deployment role defined for FNP:
- There is no deployment role defined for the FNP so there is uncertainty about how the FNP fits in the deployment medical team. (6 responses)
- I deployed before becoming an FNP. The APNs we had with us were used for whatever they needed at the time. If they were short in sick call they were pulled to that, if they were short a night nurse they were pulled to that. Is that fair? (3 responses)

Lack of comparable training opportunity:
- The FNP has not had the same opportunity for training for deployment that the other providers have. (7 responses)
- I haven t had the access to the classes in trauma like ATLS as the docs have. (3 responses)
- I am in the Air Force and expect to deploy but I lack exposure/experience in the skills needed (4 responses)
- I think FNPs as a group has poor lab and radiology skills and we would need them if deployed. (3 responses)
- I have no training in military specific medicine (4 responses)

Lack of collaborative effort:
- No collaboration effort, its us (NC) against them (MSC and MD). If we deploy as a team we need to work and practice as a team. (2 responses)
- The FNP is isolated from nursing. (4 responses)

Gender:
- I truly feel that a barrier to using us in a deployed situation is being female and being a nurse. (2 responses)
- I m a female nurse, what other barriers could there be? (2 responses)
- We are still thought of as just a nurse . (6 responses)

There was also one respondent that commented:

> I don t feel there are barriers other than possibly their reluctance to deploy. From what I understand the FNP curriculum is significantly lacking in emergency/trauma skills — that will need to be overcome!

Research Question Five

The fifth research question in this study was: What are the barriers to practice that the Family Practice physician perceives would limit or restrict the use of the FNP during a MOOTW?

In 1980, an article in Military Medicine by Southby stated that a considerable inconsistency was revealed between the attitudes and perceptions of groups of physicians and nurses as to what functions and how much independence or power in clinical decision making were appropriate for nurse practitioners (pg. 659). Nearly two decades have passed and the role of the FNP is still one of confusion and debate. This was one of the most common barriers mentioned by the physician. Just as was seen in the FNP perception of their utilization in MOOTW, there were several common barriers perceived by the FP. Of the 37 FP respondents who elected to provide comments regarding the utilization of the FNP in MOOTW the following themes emerged.

Lack of necessary skills:

- The FNP lacks the necessary skills to be used as a primary care giver during a deployment.(17 responses)
- The ones that I have seen in the clinic don t have the ER skills, procedural skills or trauma background that is a necessity. (18 responses)
- The FNPs don t have the operational training needed like surgery, trauma, ATLS, ACLS. (9 responses)
- They need more trauma training. ATLS and C4 are not enough! (6 responses)

Perception of the role:

- Administration does not understand their role. They are frequently given the same schedule and responsibilities as physicians but lack the supervisory support. (5 responses)
- Our perception (the physicians) of what the capabilities of the FNP are. I don t know does anyone? (18 responses)
- The perceptions of others is a barrier, I mean the physician, the commander and even the other nurses. (21 responses)

Lack of Knowledge of the role:
- There is a lack of line/medical command knowledge of the FNP role (21 responses)
- FNPs don t treat specific problems but only attempt to do health maintenance too often and without the needed time or resources. (8 responses)
- There is no clear definition of their role (21 responses)
- FNPs require preceptorship, they have limited prescribing abilities and can t take care of inpatients. (8 responses)

Gender:
- The fact that most FNPs are female and tend to shy away from deployments due to family. (4 responses)

One respondent commented:
- Some patients in the clinic demand to see a MD. Would a deployment make any difference?

Research Question Six

The final research question for this study was: Do FNPs perceive the current training received prepares them for utilization in MOOTW?

Of the 28 respondents that elected to provide comments regarding training there were several common themes that were of concern to the FNP.

Lack of training:
- My medical readiness training is really lacking! We need more real life-simulated exercises.
- FNPs don t get enough field exercise experience. They should get deployment experience even abbreviated would be helpful.
- We need stronger orthopedic assessment skills we barely touched that area in school and its hard to learn on the job or from a book
- I wasn t taught how to suture and do other minor type procedures you know the simple office stuff like burning off warts, I&D, and removing toenails. I would definitely need more of that before I could deploy.

And similar comments:
- I think my broad nursing background is a definite plus but I do not have the skills in minor procedures, tropical medicine and rural medicine. They weren t in our program at school and I haven t had the opportunity to learn them in the field.
- For humanitarian type missions I think we could use more training on tropical medicine, starvation, hydration, infectious disease and the like.

There were 2 respondents that commented:

- I have acquired excellent skills and am fully qualified to deploy!

Summary

This chapter provided an analysis of the data that was taken from questionnaires, which were distributed, to active duty Air Force family physicians and family nurse practitioners. Research Questions One and Two examined the perceptions of the two provider groups in the ability of the FNP to treat specific symptom/illness categories. Research Question Three compared their responses. Research Questions Four and Five examined the perceived barriers by the two provider groups pertaining to the utilization of the FNP during MOOTW. Several common themes emerged and overlapped between the two provider groups. Finally, Research Question Six explored the training preparation as perceived by the FNP. Chapter Five will summarize the data presented in Chapter Four and provide recommendations for future study.

CHAPTER V: SUMMARY

Introduction

The purpose of this comparative descriptive study was to compare and describe the Air Force Family Nurse Practitioners and Air Force Family Practice physicians perceptions regarding preparation, experience and barriers of the FNP in treating and managing the types of symptoms/illness commonly seen during MOOTW. Chapter Five will present a summary of the findings, the limitations, and the implications of this study. Suggestions for further research will also be explored.

There is a significant gap between potential and actual utilization of the advanced practice nurse. This study investigated the family practice nurse practitioner utilization only. The theoretical framework for this study stated that roles are influenced through the sharing of expectation for role behavior. Those who display the role are inspired to do so because they ascertain what behaviors are expected of them, and through their own expectations of the role. I ve been an AF officer for eight years and I can utilize my clinical skills as well as my leadership skills. I know what the scope of my practice is but do they (physicians)?

Conclusions

Family Nurse Practitioner Perception

There are no published studies regarding the Air Force family nurse practitioners perception concerning their preparation to be utilized during a deployment. A similar study by Chung-Park (1998) of the perceptions of the NP role in the US Navy discovered that the NP felt they performed general health care and patient education more frequently than the physicians thought they did. The study also showed that the service provided by

the NP was more effective than that of the physician in situations that required extensive communication with patients such as health promotion and disease prevention. However there was a measurable difference in the NP role perception with other groups which lead to role conflict.

After analysis of the data in Tables 2-12 this researcher concluded that the majority of the Air Force FNPs surveyed perceive they have the ability to treat patients in 66% of the 65 specific symptom/illness categories frequently seen during MOOTW. They perceived themselves as being competent and accountable for the specific categories and were willing to assume responsibility for the patient and function interdependently with the physician in order to provide comprehensive health care. Physicians however, perceived that the FNPs had the ability to treat 29% of the 65 specific symptom/illness categories.

In the remarks section, many FNPs responded that to deploy they would need further training in areas such as orthopedic skills and office type procedures to include suturing, toenail removal (one of the categories surveyed) and incision/drainage of wounds. Other areas of concern were infectious disease, dermatological conditions and specific illness endemic to the deployed area. In a 1999 article in Military Medicine Baker states To support our increasingly varied military activities, US military medical leaders will need to train and prepare for MOOTW missions as well as for the combat casualty mission (p. 572). If the FNP is to be utilized as part of a deployment team it would be safe to conclude that training in these areas would be necessary if not mandatory.

Family Physician Perception

Studies have shown a conservative attitude from physicians with history taking and various clinical activities as the only universally accepted items of the NP role (Theiss, 1976). Some of the responsibilities that the physicians were willing to delegate were counseling, providing patient education, and managing stable chronic conditions. Physicians differed from the NPs in their perception on the issues of assessment and evaluation of the patient. The greatest areas of disagreement were the testing of eye grounds, interpreting EKG tracings, and general interpretation of x-ray films. In Chung-Park s 1998 study the physicians differed from NPs in their perception regarding general care procedures which included emergency care and consultation service. Respondents in the study agreed on perceptions of functions that were broadly classified such as history taking, communication and health teaching. However, the overall perception of the NP role was positive.

In Flash Canoe 97, a MOOTW mission to Muk Pau Pul and Ream Cambodia, respiratory, gastrointestinal, musculoskeletal complaints along with ear, eye and skin problems predominated the medical problems seen by the Navy medical team. Within these same categories the Air Force physician perceived that the FNP had the ability to treat, without supervision, selected types of patients in all of those categories (Tables 21-28).

There was however considerable inconsistency revealed between the perceptions of the physicians as to what functions and how much independence or power in clinical decision making was appropriate for the FNP. Fourteen (38%) of the physician

respondents perceived that the FNP required preceptorship/supervision of a physician and was not an independent practitioner. A similar study by Wingert (1998) found that Air Force emergency room physicians while willing to work with nurse practitioners in Emergency Departments, still perceived the role of the nurse practitioner as dependent; one in which a physician would ultimately be in charge (p 34). When asked what role the FNP would have in a deployment one physician responded the same role as in the clinic, a physician extender. This could indicate a lack of understanding of the role of the practitioner. To be successful, it is imperative that the entire health care team not only be aware of but understand the role and function of the FNP.

Comparison of Perceptions

Data analysis revealed one overwhelming theme of perception difference. This perception difference was evident in the number of the symptom/illness categories that the FNP perceived the ability to treat the patient without additional supervision compared to the FP perception that the FNP would require additional supervision. There were a total of 24 items with a significant difference in perception. Of these items there were eight orthopedic items, two cardiovascular, three respiratory, three HEENT (all of which involved the eye), two skin, two in reproductive health, two in gastrointestinal and two in environmental. There were also several items that the FNP perceived they may require supervision but the FP perceived a definite need for supervision. These areas were: appendicitis, gastric ulcer, heat stroke, fracture, dislocation, neck pain (injury), pregnancy and suicide. There were no areas in which the FP perceived the FNP would require no additional supervision and the FNP perceived they would require supervision.

Perhaps the most notable difference in preparation perception was in the categories of

chest pain (internal) and pregnancy. The mean value of the FNP respondents was 1.78 — had some experience and may need supervision in the chest pain (internal) category. The physician mean value for the same category was 3.27 — definitely require supervision. In the pregnancy category the FNP perception mean value was 1.39 — would not require additional supervision. However the physician perception mean value was 2.54 — definitely require supervised practice.

Barriers Perceived by FNP

Theiss (1976) study described the civilian nurse practitioners barriers to practice as those dealing with legal implications, physician acceptance and availability of funds for services by the nurse practitioner. The military practitioner is not faced with the same barriers as the civilian practitioner regarding these issues. However the barrier that is perceived by both military and civilian practitioners is the overwhelming lack of knowledge about the role of the FNP and lack of collaboration with other health care providers. Several respondents in this study commented that the greatest barrier perceived was the perception of others about their role. No one knows what I am capable of was a common theme. The difference in perception of what the role entails can lead to role conflict and anxiety produced by the discrepancy the physician has about the FNP role. Physicians continue to view the FNP role as a substitutive role, which inherently limits autonomy leading to unequal clinical relationships between the FNP and physician. Physicians viewed their role as an interchangeable role between nurse and primary care provider. One respondent commented I am thought of as just a nurse . I was considered an adjunct to the doc. This inherently limits the development of autonomy, contributing to unequal training, and the establishment of a collaborative relationship between FPs and FNPs.

Understanding the issues that affect collaboration can help the FNP and physician in their joint effort to improve health care delivery and contribute to a greater understanding and acceptance of the FNPs professional role. The ultimate success or failure of the collaboration between them directly affects the role of the FNP.

Barriers perceived by FP

Research has shown that physicians perceive an inability of the nurse practitioner to perform in the expanded role and are satisfied with the traditional roles and relationships (Fottler, 1979). Theiss 1976 study also described the barriers perceived by the physician as as those involving the changing interprofessional relationship. As the FNP leaves the traditional role of a nurse behind she may be doing things the physician thought only he could do. This too causes anxiety and role conflict. There were two dominant barriers that were seen in this study. Those barriers were lack of knowledge about the role of the FNP and the perceived deficiency in deployment necessary training of the FNP. Training in areas such as trauma, emergency medicine, surgery, and a wider variation in clinical skills were all noted as areas of training that would be needed to utilized them as a primary provider during a deployment. Using Chi-square analysis a significant difference in the type and degree of advanced medical training between the two provider groups was noted in pediatric advanced life support ($x2 = 7.253$, 1 df $p = 0.007$), advanced trauma life support and ($x2 = 25.741$, 2 df, $p = 0.000$). Other advanced training was presented in Table 2.

Preparation

Twenty-five (89.3%) responded yes to the question if deployed today do you feel prepared to function as a FNP in the deployed setting? This was interesting due to the overwhelming perception of deficiency in combat/trauma medicine, a skill that was perceived as a necessary requirement by the physician group. The perception of preparedness may be a direct reflection of the wealth and variety of nursing knowledge and experience as evidenced in the demographics portion of the questionnaire.

Limitations

This study sought to determine if there was a significant difference between the perceptions of family physicians and family nurse practitioners utilizing the FNP during MOOTW. A limitation to the study was the insufficient number of respondents who had deployment experience (55.6% physician group and 38.9% FNP group). Thirty-three percent of the physicians and 16.7% of the FNPs who deployed did participate in a humanitarian mission. Of the 38.9% of FNPs who had deployment experience only one (5.6%) was deployed and utilized in the role of a FNP. Descriptive studies often require very large samples, which was not available for this study. The sample of the FNP group was limited for two reasons. First, the entire population of AF FNPs is less than 50. Second, only the names of FNPs with a stateside assignment could be obtained from AFMPC. The survey contained 65 items in symptom/illness categories and may have been a limiting factor due to the time constraints of the primary care provider groups.

Recommendations for Further Research

There are many plausible reasons for the difference of perception regarding the role of the AF FNP. To close this gap in perception it is important to determine what the critical areas of concern are and which of those areas can be changed. A few of those possible areas were brought forward in this study such as lack of knowledge of the role and lack of perceived necessary skills. Further research is needed to further assess the perceptions of the FNP role by other members of the deployed team (nurses, commanders, technicians). Further research will be required to assess role overlap where role boundaries are clear to determine possible areas of role conflict. A replication of this research study in another Branch of the Armed Services may be helpful in determining if this perception problem is common in services, which utilize FNPs and have a deployed mission.

Research may also be useful by examination the FNP role from the perspective of other health professionals, such as PAs, nurses, commanders and nurse managers. In this study the mean value for years in the military for the physician group was 7.8 years and for the FNP group a mean value of 13.7 years. A similar study of the perceptions by other primary care health providers concerning the utilization of AF physicians new to the military regarding their capability to provide care in the deployed setting may also be an interesting area of research.

Significance for Practice

The statements of the respondents from both groups surveyed indicate a definite need to enhance the deployment type training for the FNP. This is a must to provide the most effective utilization of the NP in MOOTW. FNPs must be prepared to meet the medical readiness requirements of the AF as proposed by the Surgeon General of the AF. A

deficiency in medical readiness training was detected. To be deployed as a primary health care provider the FNP must be qualified and capable. This study identified the need for educational programs to prepare the FNP for a deployed setting. The data may be useful in determining future operational and medical readiness needs and educational program requirements. A description of the FNP role in MOOTW was not found in the literature. Having a description of role expectations, responsibilities may provide assistance in documenting the type of training required.

Summary

In order to function effectively in the expanded role, the FNP must accomplish role change. To accomplish this change successfully, the FNP must be given equal opportunity to enhance and expand their training to prepare for deployment situations. Time and time again there was a reference from both groups to the lack of training that the FNP has in the areas of trauma, infectious disease, triage and emergency room. The role of the advanced practice nurse is perceived differently from provider to provider. These differences should compel organized leadership to analyze role expectations within specific practice situations. The future for all advanced practice nurses in the military is unclear at the present time. A frequent response on the questionnaire was the administration still doesn t know what we can do. While the advanced practice nurse is capable of effectively and appropriately managing most of all necessary primary care services while maintaining the highest quality care some barriers may prevent their widespread use.

Education about the scope of practice and responsibilities appropriate for the FNP is

greatly needed not only by other health team members but also by the consumer. This may assist in utilizing the expanded role to its full potential.

REFERENCES

American Academy of Nurse Practitioners. (1993). Nursing facts, advanced practice nursing: A new age in health care. Washington, DC: American Academy of Nurse Practitioners.

Avorn, J., Everitt, D.,& Baker, M. (1991). The neglected medical history and therapeutic choices: A nationwide study of 799 physicians and nurses. Archives of Internal Medicine, 151, 694-698.

Baker, M. (1999). The Medical Department in Military Operations Other Than War. Military Medicine, 164, 572-578.

Beisel, M. (1998). Alaska nurse practitioners' and physician assistants' perceptions of the collaboration process. Journal of the American Academy of Nurse Practitioners, 10, 509-514.

Biddle, B. (1979). Role theory: Expectation, identities, and behaviors. New York: Academic Press.

Bradford, R. (1989). Obstacles to collaborative practice. Nursing Management, 22, 721.

Buppert, C. (1995). Justifying nurse practitioner existence: Hard facts to hard figures. The Nurse Practitioner, 20, 43-48.

Burkette, G.L., Parken-Harris, M., Kuhn, J., & Escovitz, G. (1978). A comparative study of physicians' and nurses' conceptions of the role of the nurse practitioner. American Journal of Public Health, 68, 1090-1096.

Burns, N., Grove, S. (1997). The practice of nursing research: Conduct, ctitique, and utilization (3rd ed.). Philadelphia: W.B. Saunders.

Cairo, M. (1996). Emergency physicians' attitudes toward the emergency nurse practitioner role: Validation versus rejection. Journal of the American Academy of Nurse Practitioners, 8, 411-417.

Cashman, T., Hassel,H.,Barker, A.,& Funderburk, L. (1994). Operation Tropic Refuge: the East Wood rescue. Military Medicine, 159, 723-727.

Chung-Park, M.S. (1998). Perception of the nurse practitioner's role and job satisfaction in the United States Navy. Military Medicine, 163, 26-32.

Connelly, S., & Connelly, P. (1979). Physician's patient referrals to a nurse practitioner in a primary care medical clinic. American Journal of Public Health, 69, 73-79.

Davidson, R., Fletcher, R., & Earp, J. (1981). Role disagreement in primary care practice. Journal of Community Health, 7, 93-102.

Dorsey, C., & Morrison, R. (1991). Virginia studies access and barriers to the services of nurse practitioners. Issues, 13, 6-9.

Ford, V., & Kish, C. (1998). Family physician perceptions of nurse practitioners and physician assistants in a family practice setting. Journal of the American Academy of Nurse Practitioners, 10, 167-171.

Fottler, M. (1979). Physicians attitudes towards nurse extenders: A comparison of nurse practitioners and physicians assistants. Medical Care, 17, 536-539.

Freudenheim, M. (1997). Nurses treading on doctors' turf. The New York Times, p. 4.

Fuller, K.A. (1996). A descriptive study of military nurse practitioners' practice settings and clinical practice activities. Unpublished thesis, Uniformed Services University, Bethesda Maryland.

Herzog,E. (1976). The underutilization of nurse practitioners in ambulatory care. Nurse Practitioner, 9, 26-28.

Hopkins, A.M. (1987), Components necessary in a successful nurse practitioner-physician collaborative practice. Journal of the American Academy of Nurse Practitioners, p. 54-57.

Hunt, J. (1996). Peacekeeping operations; operations other than war: A concept in flux. Military Review, 13, 3-9.

Hupcey, J.E. (1993). Factors and work settings that may influence nurse practitioner practice. Nursing Outlook, 41, 183-184.

Jones, R., (1997), The physician and the Nurse Practitioner. Holistic Nursing Practice, 8, 38-53.

King, M. (1990). Clinical nurse specialist collaboration with physicians. Clinical Nurse Specialist, 4, 172-177.

Larino, E. (1997). Determining the level of care provided by the family nurse practitioner during a deployment. Unpublished thesis, Uniformed Services Unversity, Bethesda, Maryland.

Lauver, D. (1989). Nurse practitioner and physician roles:deliniation and complementarity of practce. Research in Nursing and Health, 7, 3-9.

Lavey, M. (1996). The role of the military nurse practitioner in deployment. Unpublished thesis, Uniformed Services University, Bethesda, Maryland.

Louis, M. & Sabo, C. (1994). Nurse practitioners: Need for and willingness to hire as viewed by nurse administrators, nurse practitioners, and physicians. Journal of the American Academy of Nurse Practitioners, 6, 113-119.

Mandelblatt, J., Traxler, M.,Lakin, P., Thomas, L.,Chauhan, P.,Matseoane, S., & Kanetcky, P. (1993). A nurse practitioner intervention to increase breast and cervical screening. Journal of General Internal Medicine, 8, 173-178.

Maroon, H. (1976). My experiences and conflicts as a primary care nurse practitioner. United States Air Force Medical Service Digest, 27, 28-29.

Martin, P. & Hutchinson, S. (1997). Negotiating symbolic space: Strategies to increase NP status and value. The Nurse Practitioner, 22, 89-91.

Mauksch, I., & Young, P. (1987). Nurse-physician interaction in a family medicine center.. Nursing Outlook, 22, 113-119.

Miller, M. (1977). Self-perception of nurse practitioners: Changes in stress, assertiveness, and sex role. Nurse Practitioner, 2, 26-29.

Murray, J. (1997, Summer). The role of APN s in MOOTW. The Nightingale Express, p. 4.

Murray, T.A., (1998). Using role theory concepts to understand transitions from hospital-based nursing practice to home care nursing. Journal of Continuing Education for Nursing, 29, 105-111.

Owen, J.P., (1998). Health surveillance in multinational division South West (Bosnia): July-November 1996. J R Army Medical Corps, 144, 18-23.

Salkever,D., Skinner, M., Steinwachs, T., & Katz, W. (1982). Episode based efficiency comparisons for physicians and nurse practitioners. Medical Care, 20, 143-153.

Simpson, R.L. (1997). What good are advanced practitioners if nobody at the top knows their value? Nursing Administration Quarterly, 21, 91-92.

Sinclair, R. (1997). The nurse practitioner role revisited. American Journal of Public Health, 36, 138-140.

Southby, J.R. (1980). Primary care nurse practitioners within the Army health care system; expectations and perceptions of the role. Military Medicine, 145, 659-65.

Sox, H.C. (1979). Quality of patient care by nurse practitioners: A ten year perspective.. Annals of Internal Medicine, 91, 459-468.

Spitzer, W.O. (1974). The Burlington randomized trial of the nurse practitioner. Annals of Internal Medicine, 80, 137-142.

Theiss, B. (1976). Investigation of the perceived role functions and attitudes of the nurse practitioner role in a primary care clinic. Military Medicine, 85-89.

Vacek, P. & Ashikaga, T., (1980). Quantification of the expanded role of the nurse practitioner: A discriminant analysis approach. Health Service Research, 15, 108-125.

Weiss, S. (1983). Role differentiation between nurse and physician: Implications for nursing. Nursing Research, 32, 133-139.

Wingert, T., (1998). Perceptions of emergency department physicians toward collaborative practice with nurse practitioners in an emergency department setting. Unpublished thesis, Uniformed Services University, Bethesda, Maryland.

Yates, L. (1997). Military stability and support operations: Analogies, patterns, and recurring themes. Military Review, Jul-Aug, 51-61.

APPENDICES

APPENDIX A - Chart of Military Operations

APPENDIX B — Letter of Permission to Modify Tool

APPENDIX C — Survey Used for Family Nurse Practitioners

APPENDIX D — Survey Used for Family Physicians

APPENDIX E — Cover Letter for Participation of Survey

APPENDIX F — Approval Letter from Institutional Review Board

APPENDIX G — Letter from Air Force for Survey Control Number

APPENDIX H - Letter of Permission from Air Force for Data Collection

US Military Operations*

Traditional Warfare

Total War

American Revolution
Civil War
World War I
World War II

Limited War

War of 1812
Mexican War
Spanish-American War
Korean War
Vietnam War
Gulf War

Expeditions/Contingency Operations

Undeclared Naval War with France
Barbary Pirates
Mormon War
Second Seminole War
Indian Wars
Boxer Rebellion
Intervention in Cuba, 1906
Intervention in Mexico, 1914, 1916
Intervention in Russia, 1918-20
Operation *Blue Bat* (Lebanon, 1958)
Operation *Power Pack* (Dominican Republic, 1965)
Operation *Urgent Fury* (Grenada, 1983)
Operation *Just Cause* (Panama, 1989)

Nontraditional Military Operations

Whiskey Rebellion
Lewis and Clark Exploration
Reconstruction in South
Pullman Strike
Nation Building in the Philippines, 1899-1904
Nation Building in Cuba, 1899-1902, 1906-1909
San Francisco Earthquake Relief
Occupation of Haiti, 1915-34
Occupation of Dominican Republic, 1916-24
The Sandino Affair in Nicaragua, 1927-33
Civilian Conservation Corps
Greek Civil War, 1947-49
Huk Insurrection in the Philippines, 1946-54
Peace Operations in Lebanon, 1958
Nation Building in Vietnam
Stability Operations in Dominican Republic, 1965-66
US Civil Disturbances, 1960s
Counterinsurgency in Latin America, 1960s
Mayaguez Incident
Peacekeeping in Beirut, 1982-84
Peacekeeping in the Sinai
Counterinsurgency in El Salvador
Hurricane Andrew Relief
Noncombatant Evacuation Operations in Somalia

*This chart is by no means a comprehensive rendering of nontraditional operations.

Chart of U.S. Military Operations

Source: Stabilization and Support Operations, Military Review, Jul-Aug 1997, p. 52

APPENDIX B

PERMISSION TO MODIFY TOOL

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 208144799

23 March 1999

MEMORANDUM FOR: Major Elizabeth Larino

FROM: Capt Sandra Houlihan
68 17 Market Square Drive
McLean, VA 22101

SUBJECT: Use of thesis tool

1. I request permission to use the tool you designed for your thesis dated 1997. I am researching data for my thesis regarding the perceptions of Air Force family nurse practitioners and Air Force family physicians regarding the role of the FNP during Military Operations Other Than War.

2. As discussed during our phone conversation in February, I have made modifications to the original tool that you designed. Please find attached a copy of the tool that I plan to use.

3. I would like to thank you once again for all of your assistance regarding this matter.

Sincerely,
SANDRA HOULIHAN, Captain, USAF, NC

Attachment:
Survey Tool

MEMORANDUM FOR: Capt Sandra Houlihan

I give Capt Houlihan permission for the use of my thesis tool dated 1997.

ELIZABETH LARINO, Major, USAF, NC

APPENDIX C

TOOL USED FOR RESEARCH

APPENDIX C

Survey Used for Family Nurse Practitioners

Survey For Family Nurse Practitioner

Part I section A : DEMOGRAPHIC DATA

Age: _____ Sex: _____

No. of years as a FNP: ___ No. of years as a RN: ___

No. of years in the military: ___

Check current certifications: ACLS: ____ PALS: ____ C4(Combat Casulty Care Course)

CNTC (Combat Trauma Nursing Course):PHTLS (Pre-Hospital Trauma Life Support): ABLS(Adv. Burn Life Support): BFN (Battlefield Nursing): Other:_____

Part I section B: DEPLOYMENT DATA

Have you ever been deployed? Yes:__ No:__ Humanitarian mission? Yes:___No: ____

In what role were you billeted? FNP: ___ Nurse: ___ Other: _____

If you were not billeted as an FNP, were you utilized as a FNP? Yes: ___ No: ___
Please explain:
_____

_____

If deployed today, do you feel prepared to function as a FNP in the deployed setting? (as far as training/skills): Yes:___ No: ___

What skills do you feel would better prepare you for your FNP role in deployment?

_____

_____

In what capacity do you perceive the FNP could be used during a MOOTW?
_____

Part II: BARRIERS

Please list (in order of their importance) three things you perceive are barriers related to the utilization of the FNP in MOOTW:

1. _____

2. _____

3. _____

Please list (in order of their importance) three things you perceive are necessary related to the utilization of the FNP in MOOTW:

1. _____

2. _____

3. _____

Part III

Survey instructions:

The following is a list of conditions experienced by military troops during recent deployments. If a patient presented to the clinic which you were assigned do you feel you have the capability and training to care for the patient? Please circle the number that best describes how you feel. If you have any additional information to provide, please write it in the "comments" section at the end of the questionnaire.

RATING SCALE :
1 - Had much experience. Would require no additional supervision.
2 - Had some experience. May need supervised practice.
3 - Had little experience. Definitely need supervised practice.
4 - Had no experience as a FNP but had the basic theory in training. Would need review and supervised practice.
5 - Had no experience and would not feel at all comfortable in treating the patient.

SIGNS/SYMPTOMS/ILLNESS	RATING				
1. Dehydration:	1	2	3	4	5
2. Heat exhaustion:	1	2	3	4	5
3. Heat stroke:	1	2	3	4	5
4. Fever:	1	2	3	4	5
5. Diarrhea:	1	2	3	4	5
6. Gastroenteritis:	1	2	3	4	5
7. Dysentery:	1	2	3	4	5
8. Food Poisoning:	1	2	3	4	5
9. Abdominal Pain:	1	2	3	4	5
10. Nausea/Vomiting:	1	2	3	4	5
11. Appendicitis:	1	2	3	4	5
12. Intestinal parasites:	1	2	3	4	5

RATING SCALE:
1 - Had much experience. Would require no additional supervision.
2 - Had some experience. May need supervised practice.
3 - Had little experience. Definitely need supervised practice.
4 - Had no experience as a FNP but had the basic theory in training. Would need review and supervised practice.
5 - Had no experience and would not feel at all comfortable in treating the patient.

13. Sunburn:	1	2	3	4	5
14. Fungal infection:	1	2	3	4	5
15. Bacterial infection:	1	2	3	4	5
16. Cellulitis:	1	2	3	4	5
17. Blister:	1	2	3	4	5
18. Insect bites:	1	2	3	4	5
19. Pharyngitis:	1	2	3	4	5
20. Rhinitis:	1	2	3	4	5
21. Bronchitis:	1	2	3	4	5
22. Pneumonia:	1	2	3	4	5
23. Asthma:	1	2	3	4	5
24. Wheezing:	1	2	3	4	5
25. Otitis media:	1	2	3	4	5
26. Sinusitis:	1	2	3	4	5
27. Lacerations:	1	2	3	4	5
28. Fracture:	1	2	3	4	5
29. Sprain:	1	2	3	4	5
30. Abrasion:	1	2	3	4	5

RATING SCALE :
1 - Had much experience. Would require no additional supervision.
2 - Had some experience. May need supervised practice.
3 - Had little experience. Definitely need supervised practice.
4 - Had no experience as a FNP but had the basic theory in training. Would need review and supervised practice.
5 - Had no experience and would not feel at all comfortable in treating the patient.

31. Contusion:	1	2	3	4	5
32. Dislocation:	1	2	3	4	5
33. Muscle pull:	1	2	3	4	5
34. Chondromalcia:	1	2	3	4	5
35. Tendonitis:	1	2	3	4	5
36. Bursitis:	1	2	3	4	5
37. Back pain (injury):	1	2	3	4	5
38. Back pain (postural/low):	1	2	3	4	5
39. Neck pain (injury):	1	2	3	4	5
40. Neck pain (postural):	1	2	3	4	5
41. Animal bites:	1	2	3	4	5
42. Conjunctivitis:	1	2	3	4	5
43. Eye infection:	1	2	3	4	5
44. Corneal abrasion:	1	2	3	4	5
45. Keratitis:	1	2	3	4	5
46. Sty:	1	2	3	4	5
47. Foreign body:	1	2	3	4	5
48. Headache:	1	2	3	4	5

RATING SCALE :
1 - Had much experience. Would require no additional supervision.
2 - Had some experience. May need supervised practice.
3 - Had little experience. Definitely need supervised practice.
4 - Had no experience as a FNP but had the basic theory in training. Would need review and supervised practice.
5 - Had no experience and would not feel at all comfortable in treating the patient.

49. UTI:	1	2	3	4	5
50. Ingrown toenail:	1	2	3	4	5
51. Hypertension(unspecified):	1	2	3	4	5
52. Chest pain (wall):	1	2	3	4	5
53. Chest pain(internal):	1	2	3	4	5
54. GI Ulcer:	1	2	3	4	5
55. Kidney Stone	1	2	3	4	5
56. Contraception:	1	2	3	4	5
57. STD (male):	1	2	3	4	5
58. STD (female):	1	2	3	4	5
59. Pregnancy:	1	2	3	4	5
60. Birth Control:	1	2	3	4	5
61. Non-freezing cold injury:	1	2	3	4	5
62. Frostbite:	1	2	3	4	5
63. Depression:	1	2	3	4	5
64. Alcohol abuse:	1	2	3	4	5
65. Suicide attempts:	1	2	3	4	5

APPENDIX D

Survey Used for Family Physicians

Survey for Family Physicians

Part I section A: DEMOGRAPHIC DATA

Age: _____ Sex: _____

No. of years as Family Physician: ____ No. of years in the military: ____

Check current certifications: ACLS: ____ PALS: ____ C4(Combat Casulty Care Course)

ATLS (Advanced Trauma Life Support): PHTLS (Pre-Hospital Trauma Life Support): ABLS(Advanced Burn Life Support): Other: _____

Part I section B: DEPLOYMENT DATA

Have you ever been deployed? Yes:__ No:__ Humanitarian mission? Yes:___No: ____

In what role were you billeted? Provider: ___ Commander:___ Other:____

Were there FNPs deployed with you? Yes: ____No:_____Don't Know: _____

If deployed today, do you perceive a role for the FNP in the mission?
Yes: ___ No: ___ Not Sure: _____

Please describe any training you perceive would better prepare the FNP, if utilized, for their role in deployment.

_____

_____

In what capacity do you perceive the FNP could be used during a MOOTW?

_____

_____

_____

Part II: BARRIERS

Please list (in order of their importance) three things you perceive are barriers related to the utilization of the FNP in MOOTW:

1. _____

2. _____

3. _____

Please list (in order of their importance) three things you perceive are necessary related to the utilization of the FNP in MOOTW:

1. _____

2. _____

3. _____

Part III

Survey instructions:

The following is a list of conditions experienced by military troops during past deployments. If a patient presented to the clinic which you were assigned do you feel a FNP would have the capability and training to care for the patient? Please circle the number that best describes how you feel. If you have any additional information to provide, please write it in the "comments" section at the end of the questionnaire.

RATING SCALE:
1 - Would require no additional supervision.
2 - May need supervised practice.
3 - Definitely need supervised practice.
4 - Would need review and supervised practice.
5 - Would not feel at all comfortable in having the FNP treat the patient.

SIGNS/SYMPTOMS/ILLNESS	RATING				
1. Dehydration:	1	2	3	4	5
2. Heat exhaustion:	1	2	3	4	5
3. Heat stroke:	1	2	3	4	5
4. Fever:	1	2	3	4	5
5. Diarrhea:	1	2	3	4	5
6. Gastroenteritis:	1	2	3	4	5
7. Dysentery:	1	2	3	4	5
8. Food Poisoning:	1	2	3	4	5
9. Abdominal Pain:	1	2	3	4	5
10. Nausea/Vomiting:	1	2	3	4	5
11. Appendicitis:	1	2	3	4	5
12. Intestinal parasites:	1	2	3	4	5

RATING SCALE:
1 - Would require no additional supervision.
2 - May need supervised practice.
3 - Definitely need supervised practice.
4 - Would need review and supervised practice.
5 - Would not feel at all comfortable in having the FNP treat the patient.

13. Sunburn:	1	2	3	4	5
14. Fungal infection:	1	2	3	4	5
15. Bacterial infection:	1	2	3	4	5
16. Cellulitis:	1	2	3	4	5
17. Blister:	1	2	3	4	5
18. Insect bites:	1	2	3	4	5
19. Pharyngitis:	1	2	3	4	5
20. Rhinitis:	1	2	3	4	5
21. Bronchitis:	1	2	3	4	5
22. Pneumonia:	1	2	3	4	5
23. Asthma:	1	2	3	4	5
24. Wheezing:	1	2	3	4	5
25. Otitis media:	1	2	3	4	5
26. Sinusitis:	1	2	3	4	5
27. Lacerations:	1	2	3	4	5
28. Fracture:	1	2	3	4	5
29. Sprain:	1	2	3	4	5
30. Abrasion:	1	2	3	4	5

RATING SCALE:
1 - Would require no additional supervision.
2 - May need supervised practice.
3 - Definitely need supervised practice.
4 - Would need review and supervised practice.
5 - Would not feel at all comfortable in having the FNP treat the patient.

31. Contusion:	1	2	3	4	5
32. Dislocation:	1	2	3	4	5
33. Muscle pull:	1	2	3	4	5
34. Chondromalacia	1	2	3	4	5
35. Tendonitis:	1	2	3	4	5
36. Bursitis:	1	2	3	4	5
37. Back pain (injury):	1	2	3	4	5
38. Back pain (postural/low):	1	2	3	4	5
39. Neck pain (injury):	1	2	3	4	5
40. Neck pain (postural):	1	2	3	4	5
41. Animal bites:	1	2	3	4	5
42. Conjunctivitis:	1	2	3	4	5
43. Eye infection:	1	2	3	4	5
44. Corneal abrasion:	1	2	3	4	5
45. Keratitis:	1	2	3	4	5
46. Sty:	1	2	3	4	5
47. Foreign body:	1	2	3	4	5
48. Headache:	1	2	3	4	5

RATING SCALE:
1 - Would require no additional supervision.
2 - May need supervised practice.
3 - Definitely need supervised practice.
4 - Would need review and supervised practice.
5 - Would not feel at all comfortable in having the FNP treat the patient.

49. UTI:	1	2	3	4	5
50. Ingrown toenail:	1	2	3	4	5
51. Hypertension(unspecified):	1	2	3	4	5
52. Chest pain (wall):	1	2	3	4	5
53. Chest pain(internal):	1	2	3	4	5
54. GI Ulcer:	1	2	3	4	5
55. Kidney Stone	1	2	3	4	5
56. Contraception:	1	2	3	4	5
57. STD (male):	1	2	3	4	5
58. STD (female):	1	2	3	4	5
59. Pregnancy:	1	2	3	4	5
60. Birth Control:	1	2	3	4	5
61. Non-freezing cold injury:	1	2	3	4	5
62. Frostbite:	1	2	3	4	5
63. Depression	1	2	3	4	5
64. Alcohol abuse:	1	2	3	4	5
65. Suicide Attempts:	1	2	3	4	5

APPENDIX E

PARTICIPATION OF SURVEY COVER LETTER

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 208144799

Dear Family Practice Nurse Practitioner/Family Physician,

I am an active duty Air Force Captain attending the Uniformed Services University of the Health Sciences in the Family Nurse Practitioner (FNP) program. I am in the process of gathering data for my thesis titled "Air Force Family Nurse Practitioner and Air Force Family Physician perceptions of the FNP Role in Military Operations Other Than War."

Please take a few moments to complete this survey concerning your perceptions concerning the preparation of the family nurse practitioner (FNP) in treating patients with common disease/illness most frequently seen during Military Operations Other Than War (MOOTW). The information provided by you and your colleagues will be confidential. The information provided will be used to assist in medical readiness preparation and training of the Air Force FNP in the MOOTW environment.

The Institutional Review Board at USUHS and the Air Force has approved this survey. A great deal of thought and energy has been put into its development. If you have any questions, comments or opinions on its improvement please add them on the survey.

Please use the addressed, stamped envelope that has been provided and mail within 2 weeks from receipt. Your time will be greatly appreciated.

In appreciation for your time and cooperation in this effort, please accept the enclosed certificate to Blockbuster video and enjoy a movie on me! Once again thank-you!

Sincerely,

Sandi Houlihan

Capt Sandi Houlihan, NC, USAF
FNP Student, USUHS, Bethesda, MD
HP: (703) 893-3041
DP: (301) 295-1992

Printed on Recycled Paper

APPENDIX F

APPROVAL LETTER FROM INSTITUTIONAL REVIEW BOARD

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
F. EDWARD HEBERT SCHOOL OF MEDICINE
4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 20814-4799

May 27,1999

MEMORANDUM FOR SANDRA HOULIHAN, GRADUATE SCHOOL OF NURSING

SUBJECT: IRB Approval of Protocol **T06lAG-01** for Human Subject Use

Your research protocol entitled "AF Family ***Nurse Practitioner and AF Family Physician Perception of the FNP Role in Military Operations Other than War,"*** was reviewed and approved for execution on5/27/99 as an **exempt** human subject use study under the provisions of 32 CFR 219.101 (b)(2). This approval will be reported to the full IRB scheduled to meet on June 10, 1999.

The purpose of this study is to describe and compare the Air Force Family Nurse Practitioner and Air Force Family Practice physicians' perceptions regarding preparation, experience and barriers of the Family Nurse Practitioners (FNPs) in treating and managing the types of disease/illness frequently seen during military operations other than war (M00TW). Current active duty Air Force FNPs and a sample of Air Force family practice physicians will be surveyed using a 75-item questionnaire. The IRB understands that no subject identifying or personally sensitive information will be collected as part of this study.

Please notify this office of any amendments you wish to propose and of any untoward incidents which may occur in the conduct of this project. If you have any questions regarding human volunteers, please call me at 301-295-3303.

Richard R. Levine, Ph.D
LTC, MS, USA
Director, Research Programs and
Executive Secretary, IRB

Cc: Director, Grants Administration

Printed on Recycled Paper

APPENDIX G

AIR FORCE APPROVAL/SURVEY CONTROL NUMBER

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE PERSONNEL CENTER
RANDOLPH AIR FORCE BASE TEXAS

26 May 1999

AFPC/DPSAS
550 C Street West, Suite 35
Randolph AFB TX 78150-4737

Captain Sandra Houlihan
68 17 Market Square Drive
McLean VA 22101

Dear Captain Houlihan

Your proposed data collection instrument,"Appendix C Survey for Family Nurse Practitioner," was reviewed and is approved for Air Force nurse practitioners. However, the survey for family physicians was not included in the review and approval package and was unable to reach you at the telephone number provided in your package.

I offer these comments on your survey instrument: (1) Ref Part 1, section B, second item. Reword to, "In what role were you billeted?" (2) Ref next item, include a comma after "FNP." (3) Ref Part III, rating scale choices 1-2. Add a period at the end of each sentence. (4). Ref the next several pages. Recommend you include the rating scale at the top of each page so the respondent will have an easy reference point.

Request you provide us a copy of your proposed physician survey, either by mail or FAX, and we will review it for approval. Also, please include a telephone number where we can reach you during normal business hours should we have questions about your proposal. Our FAX number is (210) 565-3926 or DSN 665-3926.

The Survey for Family Nurse Practitioner is approved and assigned a survey control number of USAF SCN 99-44 and will expire on 31 Dec 99. Questions about this action can be directed to me at DSN 665- 2448 or commercial (210) 565-2448.

Sincerely

CHARLES H. HAMILTON
Chief, Survey Branch

APPENDIX H

LETTER OF AIR FORCE SPONSORSHIP/PERMISSION FOR DATA COLLECTION

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

27 JUL 1999

MEMORANDUM FOR CAPTAIN SANDRA HOULIHAN
GRADUATE SCHOOL OF NURSING
UNIFORMED SERVICES UNIVERSITY
OF THE HEALTH SCIENCES

FROM: HQ USAF/SGX
110 Luke Avenue, Room 400
Bolling AFB, DC 20332-7050

SUBJECT: Data Collection Request

I fully support your descriptive/comparative study involving active duty Air Force (ADAF) family nurse practitioner (FNP) and family physician (FP) perceptions of the role of the FNP in military operations other than war. I agree it is important to compare the perceptions of the two provider groups to ensure quality collaborative care.

Once you have received Institutional Review Board approval to begin data collection for this study, you may contact your survey population--all practicing CONUS ADAF FNPs and CONUS ADAF FPs currently or previously working with an ADAF FNP--to explain the study and to invite them to participate.

It is heartening to hear you are attempting to tap into a valuable resource--family nurse practitioners in military operations other than war. Thank you for focusing your efforts on readiness. Despite the many challenges in our present Air Force Medical Service, readiness remains job one and our primary mission. I wish you continued success in your academic program and encourage you to share the results of your study through poster presentations and publications.

LINDA J. STIERLE, Brig Gen, USAF, NC
Director, Medical Readiness and Nursing Services
Office of the Surgeon General