ATTITUDES OF NURSE PRACTITIONERS TOWARD INTERPROFESSIONAL COLLABORATION

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ABSTRACT

Attitudes of Nurse Practitioners Toward Interprofessional Collaboration

By

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Effective interprofessional collaboration between nurse practitioners and physicians is imperative to meet the health care needs of all Americans. This project measures attitudes of nurse practitioners to determine the barriers to effective interprofessional collaboration with their physician colleagues. It was hypothesized that there is a positive relationship between nurse practitioner attitudes and interprofessional collaboration and a positive relationship between years in practice and interprofessional collaboration. Sixty-three nurse practitioners participated by completing the Collaborative Practice Scale and Jefferson Scale of Attitudes toward Physician and Nurse Collaboration. The Core Competencies for Interprofessional Collaborative Practice served as the framework for this project. Findings of this project revealed nurse practitioners are overall accountable for their patient care and report high levels of interprofessional collaboration. These results are a foundation for future inquiry in providing and evaluating programs to enhance interprofessional collaboration.

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Finally, I dedicate this to my beautiful daughters, Joy Ann and Grace Nora. Thank you for your understanding when mommy had to do school work. I hope I have been a good role model. Follow your dreams and remember nothing is impossible-I love you!

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Chapter I

Background

The Affordable Care Act (2010) is designed to increase the quality, affordability of health insurance, and provide coverage for all Americans. The Affordable Care Act (2010) is also increasing the demand for primary care providers. Currently, there is shortage of physicians in family practice and nurse practitioners will help fill in the gap (Yee, Boukus, Cross & Samuel, 2013). The need for effective physician and nurse practitioner (NP) interprofessional collaboration is an imperative to meet the health care needs of all Americans.

According to the Institute of Medicine (IOM), Future of Nursing Report: Leading Change, Advancing Health (2010), nurse practitioners are leading agents of change in healthcare. Numerous studies continue to show that NP's provide quality patient-centered, cost effective, evidence based care (Aleshire, Wheeler & Prevost, 2012; Stanik-Hutt, Newhouse, White, Johantgen, Bass, Zangaro, Wilson, Fountain, Steinwachs, Heindel, & Weiner, 2013). One of the recommendations of the IOM report (2010) is to increase interprofessional collaboration between physicians and NPs to improve healthcare patient outcomes.

Zaccagnini and White (2014) believe NPs and Doctor of Nursing Practice graduates (DNP's) are prepared to lead interprofessional health care teams. Effective interprofessional collaboration within these teams is essential to improve health care outcomes and population health. Healthcare team members must recognize and value professional perspectives, over-lapping roles and shared decision making between the disciplines of medicine and nursing (Zaccagnini & White, 2014).

NP's attitudes toward interprofessional collaboration can affect the relationship between the NP and the physician. Ajzen and Fishbein (1980) developed a model to include a theory for behavior based on attitude. This Theory of Attitudes developed by Ajzen and Fishbein (1980) states that people organize their perceptions of the world in terms of their evaluative responses or attitudes. This dissertation practice project measures attitudes of NPs to determine the barriers to effective interprofessional collaboration with their physician colleagues.

Problem Statement

According to the Joint Commission (2008), the leading root cause of sentinel events from 1995-2004 was communication failures. Communication failures are the leading cause of medical errors, surgical errors, and delays in treatment. The Joint Commission (2008) encouraged the use of inter-professional dialogues to move forward to improve collaboration and communication. Physician and nurse practitioner interprofessional collaboration is imperative to meeting the health care needs of all Americans (Agency of Healthcare Research and Quality, 2008). Few studies related to this topic were noted in the literature from 2005-2013. The literature review highlighted perceived beliefs and barriers to successful collaboration (Donald, Mohide, DiCenso, Brazil, Stephenson, & Aktar-Danesh, 2009; Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, 2009). The literature supports the need for further examination of the perceptions of NPs and physician collaboration. This practice dissertation addresses the need by exploring the NP's attitudes regarding physician and NP collaboration.

Theoretical Framework

Collaboration

For the purpose of this study, collaboration is not meant to imply any legal or regulatory requirement. Interprofessional collaboration is defined by the Interprofessional Education Collaborative Expert Panel (2011) as the process by which health care professionals develop integrated and cohesive ways of practicing to address the needs of client/family/population. It involves continuous interaction and knowledge sharing between professionals. Interprofessional collaboration is a shared authority and responsibility requiring open communication and shared decision making as a means of improving quality of care (Coluccio & Maguire, 1983).

This practice dissertation study was framed by the Core Competencies for Interprofessional Collaborative practice (Interprofessional Education Collaborative Expert Panel, 2011). This supports the critical need for NP and physician interprofessional collaboration and is the basis for this dissertation project. The Core Competencies for Interprofessional Collaborative practice framework domains are an essential for safe, high quality and patient-centered care (Interprofessional Education Collaborative Expert Panel, 2011). The Core Competencies for the Interprofessional Collaborative practice framework includes domains that focus on interprofessional teamwork, team-based practice and interprofessional collaboration (Interprofessional Education Collaborative Expert Panel, 2011). Interprofessional collaborative practice involves health care professionals with different professional backgrounds working together with patients, families and communities to provide high quality patient care

outcomes (Interprofessional Education Collaborative Expert Panel, 2011). Interprofessional teamwork is the coordination and collaboration between professions in delivering patient-centered care (Interprofessional Education Collaborative Expert Panel, 2011).

Core Competencies for Interprofessional Collaborative Practice Domains

Domain one focuses on values/ethics for interprofessional practice (Interprofessional Education Collaborative Expert Panel, 2011). This value and ethics domain is patient centered and grounded by a commitment and sense of purpose (Interprofessional Education Collaborative Expert Panel, 2011). Interprofessional working relationships require mutual respect and trust. Domain two focuses on the roles and responsibilities of the health care team. These roles must complement each other in patient centered care. Domain two also focuses on collaborative expertise, which requires continuing education and improvements in practice (Interprofessional Education Collaborative Expert Panel, 2011). One of the core components of domain three is interprofessional collaboration and communication. According to Interprofessional Education Collaborative Expert Panel (2011), effective communication can be defined as openness, and expression of thoughts and feeling that influence the team interactions. Domain four involves the importance of teams and teamwork (Interprofessional Education Collaborative Expert Panel, 2011). Teamwork is defined as the value of professional expertise and the added contribution to the team (Interprofessional Education Collaborative Expert Panel, 2011).Teamwork involves shared accountability and expected roles and responsibilities of each member. There is a need to use the Core Competencies for Interprofessional Collaborative Practice as a framework within which

interprofessional collaboration between NPs and physicians can be explored (Interprofessional Education Collaborative Expert Panel, 2011).

Concept: Attitudes

Altman (2008) found the concept of attitude to be vaguely defined in the nursing literature. The author identified three characteristics of attitudes which are (a) a mental state-conscious or unconscious (b) a value, belief, or feeling and (c) a predisposition to a behavior or action. An attitude has critical attributes that have cognitive, affective and behavioral component. According to Fishbein and Ajzen (1980), the theoretical definition of attitude is a person who believes that performing a given behavior will lead to mostly positive outcomes holds a positive attitude. An unfavorable attitude occurs when a person who believes that preforming the behavior will lead to mostly negative outcomes. Attitudes are determinants of behavior in any given situation and influence how people perceive and feel about the situation (Cacioppo, Clairborn, Petty, & Heesacker, 1991).

Concept: Collaboration

A concept analysis on collaboration (Hennenman, Lee, & Cohen, 1995) identifies collaboration as a complex phenomenon. The authors identify the need for a better understanding of the term "collaboration" in order to provide researchers a clearer definition. First collaboration requires that individuals view themselves as team members and contribute to the common goal. Collaboration is nonhierarchical because power is shared (Hennenman, Lee, & Cohen, 1995). The positive impact of collaboration on patient outcomes has been recognized in the current literature (Hennenman, Lee, & Cohen, 1995).

Research Question

What are the nurse practitioner's attitudes toward physician and NP interprofessional collaboration?

The independent variable is the nurse practitioner's attitudes and the dependent variable is interprofessional collaboration.

Procedure

This study uses a cross-sectional descriptive, non-experimental survey method reporting NP attitudes on interprofessional collaboration. The study evaluated the possible relationships between attitude, academic preparation, gender, years of practice and areas of practice using a demographic questionnaire. The purposed sample consists of at least 60 nurse practitioners who are currently practicing as a NP.

Measurement Tools

Interprofessional Collaboration

This practice dissertation project identified attitudes of nurse practitioners related to interprofessional collaboration with physicians. Weiss (1983) developed the Collaborative Practice Scale (CPS) tool, which operationalized by the concept of interprofessional collaboration. Permission was obtained for the tool (Appendix A). This instrument uses a 6-point Likert scale (6=always, 1=never), consists of nine items and was originally used to measure nurse and physician collaboration. According to Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick (2009) used minor wording changes to reflect NP practice and will be used for this study. The first factor (items #1, 2, 4, 6, and

9) measures the degree to which a NP directly asserts professional expertise and opinion when interacting with physicians about patient care. The second factor (items # 3, 5, 7, 8,) measures the degree to which a nurse clarifies with physician's mutual expectations regarding the nature of shared responsibilities in patient care. A higher score indicates greater interprofessional collaborative practices. Cronbach's alpha coefficients for reliability were reported as 0.83 and 0.85 (Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, 2009). Weiss and Davis, (1985) reported construct validity from 1.27 to 4.17.

Attitude

Hojat, Fields, Veloski, Griffiths, Cohen, and Plumb (1999) developed a tool called The Jefferson Scale of Attitudes toward Physician and Nurse Collaboration (JS). This instrument measures attitudes toward collaboration and operationalizes the concept "attitude". Permission was obtained for the tool (Appendix B). This tool was modified for use with other health care professionals. The tool consists of 15 items and the higher the score the more positive the attitude. The self-assessment contains four domains: shared education and collaborative relationships, caring as opposed to curing, NP or nurse autonomy, and physician authority. Moderate to high total scale score reliabilities were report for nursing (α=.85) and medical (α=.84) students with overall coefficient alpha (α=.85). This tool has been international tested, for translations of the measures and used with other health care professionals. The instrument is most applicable for measuring attitudes for this practice dissertation.

Importance to Nursing

The IOM report (2010), "The Future of Nursing; Leading Change, Advancing Health" emphasized the future roles of NPs. NPs will lead the changes in healthcare delivery in the US from the front lines of care to national health care policy development (IOM, 2010). These efforts will include partnerships with legislators and physicians to redesign the US health care system. Nurse practitioner involvement is vital to move to the current health care system forward to ensure improved access to care and the delivery of safe evidence based patient care (IOM, 2010).

Nurse practitioners will also be vital to fill in the gaps where there is a lack of access to care and lack of primary care physicians. NPs will work as critical members of the healthcare team to meet the goals of a healthier population. To accomplish this, NPs and physicians need to work side by side to provide quality, evidence-based and effective patient care. The changes in health care delivery will provide an opportunity to create and strengthen collaborative relationships between NPs and physicians (Soine, Errico, Redmond & Sprow, 2013).This dissertation project identifies attitudes that are barriers to preventing nurse practitioners from being effective partners in an interprofessional collaborative practice model.

DNP Essentials

The Doctorate of Nurse Practice program is guided by eight essentials (AACN Hathaway, Allan, Hamric, Honig, Howe, & Keefe, 2006). This project responds to several of these essentials. Essential II cites the importance of Organizational and Systems Leadership for Quality Improvement and Systems Thinking. Doctorate of

nursing practice graduates must be proficient in collaborative quality improvement strategies and creating positive changes at the organizational level. Essential III refers to Clinical Scholarship and Analytical Methods for Evidence-Based Practice. This essential involves the translation of research into practice and new knowledge for DNP practice. The evaluation of practice and the participation in collaborative practice is critical for DNP graduates. Interprofessional Collaboration for Improving Patient and Population Health Outcomes refers to DNP Essential VI. The Institute of Medicine (IOM) (2003) mandates health care interprofessional collaboration to provide safe, efficient, equal and patient centered care in a complex health care environment. Essential VIII relates to Advanced Nursing Practice and focuses on the development of collaborative partnership with other health care professionals to facilitate optimal care and patient outcomes. This project will identify barriers to collaborative practice and strategies that can be developed to further reduce these barriers.

Discussion

Chapter I discussed the background, problem statement and theoretical framework for this practice dissertation project. The role of the nurse practitioner is still evolving as health care becomes more complex. Physician and nurse practitioners must effectively communicate and collaborate to provide effective care to all Americans. This NP and physician interprofessional collaboration practice dissertation project will identify barriers to collaboration and strategies to improve collaborative efforts. Chapter II discusses the current literature regarding NP and physician interprofessional collaboration.

Chapter II

Literature Review

This chapter presents the review of the literature related to nurse practitioner attitudes, physician and NP interprofessional collaboration and builds upon the theoretical framework Core of Competencies for Interprofessional Collaborative Practice (2011).

Design of Literature Review

A literature review was conducted using the search engine Google scholar, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Scopus, and Medline online library. The design of the literature review involved selecting studies that involved NP and physician attitudes and/or interprofessional collaboration. The search began with the search terms nurse/nurse practitioner and physician collaboration and attitudes. Google scholar, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Scopus, and Medline identified relevant studies that were published between 2005-2013. Inclusion criteria were studies published in English, from peer-reviewed journals and focused on interprofessional collaboration and or attitudes. The keywords used included: nurse practitioner and physician collaboration, nurse-physician collaboration, nurse practitioner barriers to collaboration, attitudes of nurses or nurse practitioners, successful collaboration nurse practitioner and physician. The SCOPUS search on nurse practitioner collaboration revealed nine hundred eighty-eight references. This search was further reduced by adding the word physician and limiting the number of years between 2005-2013 and revealed seventeen studies.

The research articles that were excluded from the literature review where any population other than nurses/ NP's, physicians and articles with no relevance to the research question. The key word collaboration, interprofessional collaboration, or nurse practitioners or nurse attitudes were necessary in the research article. Based on these criteria, eight articles about nurse practitioners and physician collaboration and/or attitudes were identified and critiqued.

Results

The review begins with an overview of the studies and methodologies, followed by the discussion of the study findings. The following table summarizes the literature review findings for this practice dissertation project.

Table 1

Literature Summary of NP Attitudes and Interprofessional Collaboration

Author/Year	Purpose of the Study	Sample	Results
Schadewaldt, McInnes, Hiller & Gardner, 2013	Meta-analysis of NP and physician views and experiences with collaboration	27 studies	Identification of themes, barriers to NP and Physician collaboration and strategies to improve collaboration
O' Brien, Donald, Mohide, DiCenso, Brazil, Stephenson, & Aktar-Danesh, 2009	A descriptive cross-sectional design to investigate: NP and Physicians collaboration in long term care settings	Physicians n=27 NPs n=14	Physicians had greater satisfaction with collaboration then NPs.
Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick ,2009	A descriptive cross-sectional design to identify the NP and Physician collaboration and levels of autonomy in Nurse Practitioners	NPs n=99	NPs rated both their perceptions of collaboration with physician colleagues and levels of autonomy as high.
Street & Cossman,2009	A descriptive survey to determine physician attitudes of NPs in primary practice	Physicians n=563	Physicians working with NPs in primary practice had significantly more

			positive attitudes toward NPs.
Donelan, DesRoches, Dittus & Buerhaus, (2013)	A descriptive survey designed to identify practice characteristics and attitudes about the effect of expanding role of the NP in primary care	NP=467 Physicians=505	Researchers identified differences in attitudes in both practice characteristics and attitudes between the disciplines.
Clarin, 2007	A literature review to identify barriers and strategies to effective NP and Physician collaboration	12 research articles	Barriers identified were physician lack of knowledge of NP role, attitudes, lack of respect and poor communication
O'Brien, Martin, Heyworth & Meyer, (2009)	A qualitative design used interviews to describe the experiences of collaboration between NPs and Physicians	APNs n=8 Physicians n=5	Interviews revealed recommendations for successful collaboration
Clark & Greenawald, (2013)	A qualitative design identified themes characterizing collaboration	Medical directors n=8 Nursing unit directors n= 10	Collaboration was less effective when teams had poorly defined goals. Lack of respect resulted in dysfunctional relationships
Martin, O'Brien, Heyworth, & Meyer (2005)	Qualitative assessment of tensive issues by physicians and Advance Practice Nurses (APNs) working collaboratively on a healthcare team.	Physicians n= 5 APNs n= 8	The data suggested the physicians do not have the knowledge and training of the APN role. The lack of physician knowledge contributes to the APN's perception of lack of physician understanding of the working partnership.

Meta-analysis

Schadewaldt, McInnes, Hiller and Gardner, (2013), identified twenty-seven studies of nurse practitioners and physician views and experiences with collaboration.

Data were compared to identify five themes in relation to perceptions and understanding of collaboration between NPs and physicians. Schadewaldt, McInnes, Hiller and Gardner (2013), defined collaboration to have the characteristics of trust, mutual respect, shared decision-making and equality. This review identified themes, barriers to NP and physician collaboration and suggested further strategies to improve collaboration (Schadewaldt, McInnes, Hiller & Gardner, 2013).

Schadewaldt, McInnes, Hiller and Gardner, (2013) identified five important elements of collaboration: sharing, working together, practice reality, competence, autonomy, and supervision. Then, NP views and MD views were identified and commonalities were formed. One strategy for improving NP and Physician collaboration identified in the literature is to educate the physicians on the NP role. Taking time for regular meetings, a positive attitude and recognition of the NP role were strategies for successful collaboration. Interprofessional education regarding the education and skills of the NP and physician had a positive impact on interprofessional collaboration (World Health Organization, 2010).

Quantitative Studies

Donald, Mohide, DiCenso, Brazil, Stephenson and Aktar-Danesh, (2009), used a cross sectional design to investigate NPs and Physicians collaboration in a long-term care setting. The researchers used two instruments, the Measure of Current Collaboration and the Provider Satisfaction with Current Collaboration. Construct validity of the Measure of Current Collaboration tool was tested and results revealed significant correlation with two global questions: extent of collaboration ($r=0.89$, $p<0.001$) and satisfaction with

collaboration (r=0.91, p<0.001) (Donald, Mohide, DiCenso, Brazil, Stephenson, & Aktar-Danesh, 2009).

The Provider Satisfaction with Current Collaboration used a Donaldson tested scale against two global questions re: extent of collaboration (r=0.89, p<0.001) and satisfaction with collaboration (r=0.91, p<0.001) to determine construct validity (Donald, Mohide, DiCenso, Brazil, Stephenson, & Aktar-Danesh, 2009). Physicians had statistically significant greater satisfaction with collaboration than the NP. The sample size was small with physicians n=27 and NP n=14. All of the participants worked in long- term care and over half had a previous collaboration experience. One of the limitations reported was a possible bias with social desirability, which could have overestimated the extent of satisfaction with collaboration (Donald, Mohide, DiCenso, Brazil, Stephenson, & Aktar-Danesh, 2009).

Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, (2009), used a convenience sample of n= 99 NPs who attended a national clinical conference. This descriptive cross-sectional design used a Dempster Practice Behavior Scale (DPBS) and the Collaborative Practice Scale (CPS) to identify the NP and physician collaboration and levels of autonomy in nurse practitioners. Cronbach's alpha was 0.95 for the Dempster Practice Behavior Scale; the content validity index of DPBS was reported to be the maximum of 1.00. The Collaborative Practice Scale (CPS) (Weiss & Davis, 1985) was originally used to measure nurse and physician collaboration. This CPS scale was modified to measure NP perception in this study. This CPS scale consists of nine items measured on a 6-point Likert scale, ranging from never to always, with the high scores indicating more collaborative practices (Weiss & Davis, 1985). Cronbach's alpha for the

CPS was reported as 0.83-0.85. The demographics collected were then compared to the American Academy of Nurse Practitioners demographics to show similarities of the subjects surveyed (Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, 2009). Nurse practitioners rated both their perceptions of collaboration with physician colleagues and levels of autonomy as high. Years as a NP and total autonomy scores showed a significance of ($F=7.75$; $\alpha=.001$). Although, no significant difference ($F=2.15$; $\alpha=.12$ was found between years as a NP and total collaboration scores. NPs with less than 10 years of experience in post hoc analysis demonstrated the significance. The limitations of the study were the small sample size the survey of only NPs (Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, 2009).

Street and Cossman (2009) conducted a study to determine physician attitudes toward NPs in a medically underserved area in Mississippi. The sample included 563 Mississippi physicians in active practice. An attitudes measures validated in other studies was used with an ($\alpha=0.87$). The results indicated that physicians who work closely with NPs had a significantly more positive attitude ($\beta=.021$) than physicians who lack NPs in primary practice (Street & Cossman, 2009).

Donelan, DesRoches, Dittus and Buerhaus (2013), identified practice characteristics and attitudes of NPs and physicians. The researchers hypothesized that physicians who worked in collaborative practices would be more similar in their responses. The sample (physicians n=505; nurse practitioners n=467) was obtained from two national data banks via mail. The findings showed a significant difference ($p<0.001$) in responses of NPs and physicians attitudes on policy and practices related to scope of practice. These practice issues included nurse practitioners practicing to full extent and

nurse practitioners leading medical homes. The researchers concluded by stressing the importance of addressing these issues to meet the primary care needs of patients.

Literature Review

Clarin (2007), identified barriers and strategies to effective NP and physician collaboration. The authors conducted a literature review and found twelve research articles with several common themes. Some of the physician and NP barriers found were the lack of knowledge of the NP role, attitudes, lack of respect, and poor communication. The author identified strategies to improve collaboration and ultimately improve patient care outcomes (Clarin, 2007). Further studies were recommended by the authors to show how a collaborative NP and physician relationship affects patient outcomes. Clarin (2007) reported that identifying barriers and developing strategies to eliminate barriers would enhance interprofessional relationships that will ultimately positively affect patient outcomes.

Qualitative Studies

A phenomenological study on perception of nurse practitioner and physician collaboration identified themes essential for successful collaboration (O'Brien, Martin, Heyworth & Meyer, 2009). The researchers used interviews to describe the experiences of collaboration between advance practice nurses (APN's) and physicians. In-depth interviews of eight advance practice nurses and five medical doctors were performed. The barrier themes identified were lack of MD knowledge of the NP role, poor physician attitudes, lack of respect, poor communication, and patient and family reluctance to accept NP care. O'Brien, Martin, Heyworth & Meyer (2009) reported that the important

findings of this study were that both the APN's and physicians gave recommendations for successful collaboration but neither perceived themselves as contributors to difficulties with successful collaboration.

Clark and Greenawald (2013) conducted semi-structured interviews with eight medical directors and ten nursing unit directors. The medical director's responsibilities included patient access, quality and safety, patient satisfaction, resource utilization, and practice management. The nurse unit director roles and responsibilities included staffing, budget, and operational goals of the intensive care units. This study identified themes characterizing collaboration from the perspectives of nurses and physicians. The authors also state the importance of improving collaboration to meet safety and quality goals. Collaboration was found to be a mechanism to support improved communication between the nurses and physicians (Clark & Greenawald, 2013). The common themes identified were communication, shared expectations and relationships. Clark and Greenawald (2013) found that collaboration was less effective when teams had poorly defined goals. The authors also reported that lack of respect resulted in dysfunctional relationships between the nurse unit directors and medical directors. The study subjects reported that organizational support, visioning and follow up from leadership served as a powerful influence on the relationships. One of the limitations was a small size. The study did support the importance of effective interprofessional collaboration between physicians and nurses/NP's (Clark & Greenawald, 2013).

Martin, O'Brien, Heyworth, and Meyer (2005), conducted a qualitative assessment of tensive issues by physicians and advance practice nurses (APN) working collaboratively on a healthcare team. Semi-structured interviews with five physicians and

eight APN's were completed. Questions were related to what to expect from each other in practice, which characteristics were valued in colleagues and what improvements might enhance their association. Themes identified included autonomy and interdependence, professional role expectation, flexible role enactment, proactive problem solving and action learning (Martin, O'Brien, Heyworth, & Meyer, 2005). The study issues the influence quality of collaboration, and physicians and APN communication measures. The data suggested the physicians do not have the knowledge and training of the APN role. The lack of physician knowledge contributes to the APN's perception of lack of physician understanding of the working partnership (Martin, O'Brien, Heyworth, & Meyer, 2005).

Interprofessional Collaboration Tool

A review of instruments used to measure collaboration was conducted using the SCOPUS database. Dougherty and Larson (2005) identified five instruments to measure nurse-physician collaboration. The review also identified pertinent studies that used these collaborative scales for research. It was determined that the Collaborative Practice Scale (Weiss, 2006) would be most applicable to this project due to its use in several studies measuring NP and physician collaboration.

Heat, Fields, Veolia, Griffiths, Cohen and Plumb (1999) developed a tool called The Jefferson Scale of Attitudes toward Physician and Nurse Collaboration. This instrument measures attitudes toward collaboration. It has been modified for use with other health care professionals such as nurse practitioners. The self-assessment contains four domains: shared education and collaborative relationships, caring as opposed to

curing, NP or nurse autonomy, and physician authority (Hojat, Fields, Veloski, Griffiths, Cohen, & Plumb, 1999). The instrument is most applicable for measuring attitudes for this practice dissertation.

This chapter presented the current literature related to interprofessional collaboration between physician and advance practice nurses/NPs. Chapter III will discuss the methodology to be used in this practice dissertation project. This limited review of the articles highlights the need for further examination in determining attitudes of NP and the level of collaboration between NP and physicians.

Chapter III

Introduction

Chapter III describes the design and research methodology used to conduct this practice dissertation project exploring the nurse practitioner's attitudes toward NP and physician interprofessional collaboration. It also includes the description of the proposed sample size and characteristics, the research settings, the procedures for sample recruitment, data collection, and institutional review board procedure. Finally, this chapter describes the instruments used as well as the data analysis procedures.

Research Question

The research question is: What are the nurse practitioner's attitudes towards NP and physician interprofessional collaboration? The purpose of this dissertation project is to explore nurse practitioner attitudes and NP and physician interprofessional collaboration. The research is also designed to examine possible relationships between these variables. For the identification and description of attitudes and interprofessional collaboration, numerical data will be collected with validated questionnaires. Therefore, this study used quantitative data to describe the NP's attitudes toward NP and physician interprofessional collaboration.

Hypotheses

1. There will be a positive relationship between nurse practitioner attitudes and interprofessional collaboration.

2. There will be a positive relationship between years in practice and interprofessional collaboration.

Design

This study employed a non-experimental cross-sectional descriptive design to evaluate nurse practitioner's attitudes toward interprofessional collaboration. This practice dissertation project proposed to use a convenience sample of nurse practitioners who are currently practicing as nurse practitioner. Inclusion criteria for the study participation are English speaking and nurse practitioners currently practicing as NPs in New Jersey. The minimum sample size will be sixty nurse practitioners.

Nurse practitioner participants were recruited from three different settings in New Jersey: a university setting, a hospital setting and an NP professional organization. The hospital settings include medium to large sized non-profit community medical centers in northern and central New Jersey. This recruitment strategy will help to minimize homogeneity. Written questionnaires were used at all of the above recruitment sites.

Sample Recruitment

After university IRB approval was obtained, IRB approval was obtained at the recruitment hospitals and written agreement from the NJ-forum of Advance Practice Nurses (APN's). The recruitment process used was to attend APN meetings at hospitals, university and APN forums.

Proposed Data Collection Methods

After recruitment, subjects were given a consent form to read (Appendix C). Completion of the questionnaire included a statement of verbal consent to participate.

The self-reported questionnaires included are as follows: Demographic Data Questionnaire (Appendix D), Collaborative Practice Scale (Appendix E) and Jefferson Scale of Attitudes toward Physician and Nurse Collaboration (Appendix F).

Human Rights Protection

William Paterson University Institutional Review Board (IRB) approval was received prior to project implementation (Appendix G). The researcher obtained IRB approval from each individual hospital and website. There are no risks for the subjects for completing the questionnaire. Written surveys were kept in a locked cabinet in the DNP office. No names or participant identifiers were collected.

Instruments

The demographic data questionnaire requested the following data: age, gender, years of practice as a nurse practitioner, area of specialty, and years in current position. Weiss (1983) developed the Collaborative Practice Scale (CPS) tool, which employs a 6-point Likert scale. It was originally used to measure nurse and physician collaboration. According to Maylone, Ranieri, Quinn-Griffin, McNulty and Fitzpatrick (2009), minor wording changes were used to reflect NP practice. The first factor items #1, 2, 4, 6, and 9 measure the degree to which a NP directly asserts professional expertise and opinion when interacting with physicians about patient care. The second factor items # 3, 5, 7, 8, measure the degree to which a nurse clarifies with physician's mutual expectations regarding the nature of shared responsibilities in patient care. A higher score indicates greater interprofessional collaborative practices. Cronbach's alpha coefficients for reliability were reported as 0.83 and 0.85 (Maylone, Ranieri, Quinn-Griffin, McNulty &

Fitzpatrick, 2009). Weiss and Davis, (1985) reported construct validity from 1.27 to 4.17 for the tool. Permission was obtained for the tool (Appendix A).

Hojat, Fields, Veloski, Griffiths, Cohen and Plumb (1999) developed a tool called The Jefferson Scale of Attitudes toward Physician and Nurse Collaboration (JS). This instrument, which measures attitudes toward collaboration, was modified for use with other health care professionals and consists of 15 items. A higher score indicates a more positive attitude. The self-assessment contains four domains: shared education and collaborative relationships, caring as opposed to curing, NP or nurse autonomy, and physician authority. Moderate to high total scale score reliabilities were reported for nursing (α=.85) and medical (α=.84) students with overall co- efficient alpha (α=.85). Permission was obtained to adapt and use for this practice dissertation project (Appendix B).

Proposed Data Analysis

Frequency distributions were obtained using demographic data. Descriptive statistics were completed to describe the sample. The characteristics obtained were age, gender, education, and years of experience as a NP and area of practice. Statistical analysis was conducted based on a normal distribution. Pearson correlation coefficient examined the possible relationship between years of experience as a NP and perception of NP and physician collaboration.

Summary

Chapter III presented the design, methodology and data analysis for this practice dissertation project on nurse practitioner's attitudes toward NP and physician

interprofessional collaboration. Sample characteristics, settings, sample recruitment, data collection, procedures and human rights protection were discussed. The two questionnaires were chosen based on applicability, reliability and validity for this project. Chapter IV will present the results.

Chapter IV

Chapter IV discusses the results of this practice dissertation project. This non-experimental cross-sectional descriptive design evaluated nurse practitioner's attitudes toward interprofessional collaboration. Nurse practitioners were evaluated utilizing the Collaborative Practice Scale (CPS) (9 items) and the Jefferson Scale of Attitudes toward Physician and Nurse Practitioner Collaboration tool (15 items). The independent variable for this dissertation project is the nurse practitioner's attitudes. The dependent variable is interprofessional collaboration. All data were analyzed using SPSS version 22.

Sample

Sixty-eight surveys were distributed in the three proposed settings; a northern New Jersey large academic medical center, a northern NJ university and NJ nurse practitioner forum meetings throughout NJ. All who were approached elected to participate and comprised the sample of convenience. Five surveys were not included in the statistical analysis due to not meeting the inclusion criteria. The five surveys not included were clinical nurse specialists and do not work in the role as a nurse practitioner. The final sample consisted of NPs (n=63) who met the study inclusion criteria and were included in the statistical analysis.

Demographics

The demographic data collected included gender, age, area of practice, area of specialty, length of years as a nurse and nurse practitioner, years practicing in current position and highest level of education. The majority of NPs surveyed were female (92%, n=58). The age of the sample of nurse practitioners were (41.3%, 51-60) years of age.

The demographic characteristics of the NP participants are presented Table 2 and Table 3. The majority of NPs were prepared at a Master's degree level, (77.8%, n=49), with 11-15 years of experience working in a hospital or private practice setting.

Table 2 *NP Demographics*

	Frequency	Percent
Age		
20-30	2	3.2
31-40	10	15.9
41-50	17	27
51-60	26	41.3
61-70	8	12.7
Years as nurse		
0-5	2	3.2
6-10	3	4.8
11-15	4	6.3
16-20	11	17.5
21-25	14	22.2
26-30	8	12.7
31-35	7	11
>36	14	22
Years as NP		
0-5	16	25.4
6-10	11	17.5
11-15	19	30.2
16-20	10	15.9
21-25	2	3.2
26-30	5	7.9
Years in current position		
0-5	32	50.8
6-10	11	17.5
11-15	9	14.3
16-20	5	7.9
21-25	2	3.2
26-30	3	4.8
31-35	1	1.6
Level of Education		
BSN	1	1.6
MSN	49	77.8
DNP	6	9.5
PhD	2	3.2
Other	6	7.9

Table 3

Area of practice

Area of practice	Frequency	Percent
Private practice	22	34.9
Clinic	7	11.1
Hospital	26	41.3
Other	8	12.7

Statistical Analysis

Descriptive statistics were completed to describe the sample. Data were calculated and reviewed to determine a normal distribution. The data collected attempted to answer the research question. The hypotheses will be either accepted or rejected based on the findings. The hypotheses are as follows: There is a relationship between NP attitudes and interprofessional collaboration. There is a positive relationship between years in practice and interprofessional collaboration

Pearson correlation coefficient was calculated examining the relationships between NP years in practice and interprofessional collaboration and is presented in Table 4. A weak positive significant correlation was found (r (61) =.260, p=.04), indicating a linear relationship.

Table 4
Collaborative Practice and Years of NP practice

		Collaborative Practice	Years as an NP
Collaborative Practice	Pearson Correlation	1	.260*
	Sig. (2-tailed)		.040
	N	63	63
Years as an NP	Pearson Correlation	.260*	1
	Sig. (2-tailed)	.040	
	N	63	63

* *Correlation is significant at the 0.05 level (2-tailed)*

A Pearson correlation coefficient was calculated examining the relationship between years of experience as a nurse practitioner and perception of NP and physician collaboration. A weak positive significant correlation was found (r (61) =.258, p=.041).

Table 5
Years of experience as a NP and perception of NP and physician collaboration

		A NP should be viewed as a collaborator and colleague with a physician rather than his/her assistant	Years of experience as a NP
A NP should be viewed as a collaborator and colleague with a physician rather than his/her assistant	Pearson Correlation Sig (2-tailed) N	1 63	.258* .041 63
Years of experience as a NP	Pearson Correlation Sig (2-tailed) N	.258* .041 63	1 63

* *Correlation is significant at the 0.05 level (2-tailed)*

A Pearson correlation coefficient was calculated examining the relationship between attitudes and collaboration. No significant correlation was found (r (61) =.027, p=.832).

Table 6
Relationship between attitudes and collaboration

		Collaborative Practice Scale	Jefferson Scale
Collaborative Practice Scale	Pearson Correlation Sig. (2-tailed) N	1 63	.027 .832 63
Jefferson Scale	Pearson Correlation Sig. (2-tailed) N	.027 .832 63	1 63

* *Correlation is significant at the 0.05 level (2-tailed)*

Collaborative Practice Scale (CPS) (9 questions) was used to measure collaboration. The mean score found on the CPS was 4.60 out of 6. Jefferson Scale of Attitudes toward Physician and Nurse Collaboration (15 questions) was used to measure attitudes of NPs. The mean score found on the JS was 3.36 out of 4 measuring attitudes.

Frequencies were computed using results from the CPS and Jefferson Scale of Attitudes Toward Physician and Nurse Collaboration. Approximately eighty-three percent of the respondents indicated strong agreement to the statement "NPs should be accountable to patients for the care they provide". The majority of NPs n=51 (81%) strongly agree that medical and NP students should be involved in teamwork in order to understand their respective roles. The majority of the NP subjects n=56 (89%) feel that NPs should be viewed as collaborator and colleague with a physician.

Chapter IV presented the results of the analysis of the measurement of NP attitudes toward NP and physician interprofessional collaboration. The demographics of the NP respondents were reported with the results from the Collaborative Practice Scale and Jefferson Scale of Attitudes toward Physician and Nurse Collaboration. Chapter V will discuss the significance of these findings for NP attitudes and interprofessional collaboration, Core Competencies for Interprofessional Collaborative Practice and Essentials for Doctoral Education for Advanced Practice.

Chapter V

The purpose of Chapter V is to summarize the key findings of this practice dissertation project and provide suggestions for future nurse practitioner and doctorate of nursing practice and research. The limitations of the study are also presented in this chapter. Attitudes of nurse practitioners were explored as determinants of interprofessional collaboration. This chapter also addresses the importance of interprofessional collaboration to improve health care outcomes and the Doctorate of Nursing Practice Essentials.

Summary of Results

This practice dissertation project evaluated relationships between NP's attitudes toward physician and NP interprofessional collaboration using the Collaborative Practice Scale (9 items) and The Jefferson Scale of Attitudes toward Physician and Nurse Collaboration (15 items).

Demographics were collected on all the NP subjects. Sixty-three NPs participated in the study. The demographic data collected included gender, age, area of practice, area of specialty, length of years as a nurse and nurse practitioner, years practicing in current position and highest level of education. The majority of NPs surveyed were female (92%, n=58) and prepared at a Master's degree level (77.8%, n=49) with 11-15 years of experience working in a hospital or private practice setting. Forty-one percent of respondents were 51-60 years of age; and 27% were 41-50 years of age. The demographics were compared to the American Association of Nurse Practitioners National NP Sample Survey (Goolsby, 2005). The NPs surveyed in this project were

found to be similar to this national nurse practitioner sample survey which was predominately female (95%) and Master's degree prepared (88%). According to Goolsby (2005), the average age of nurse practitioners practicing in the United States is 50 years of age.

The results of this dissertation project indicated that nurse practitioners are overall accountable for their patient care and report high levels of interprofessional collaboration. These findings are consistent with the current literature (Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick, 2009; O'Brien, Martin, Heyworth & Meyer, 2009). Maylone, Ranieri, Quinn-Griffin, McNulty and Fitzpatrick (2009) found that NPs had a high level of collaboration with physicians. O'Brien, Martin, Heyworth and Meyer (2009) reported that both the NP's and physicians gave recommendations for successful collaboration but neither perceived themselves as contributors to difficulties with successful collaboration. This practice dissertation project also revealed that NPs had a high level of interprofessional collaboration.

The first hypothesis of this practice dissertation project was supported by the results of the statistical analysis and current literature. A positive relationship was found between years in practice and interprofessional collaboration. A Pearson correlation coefficient found a weak positive significant relationship between NP years in practice and interprofessional collaboration. These results are similar to the findings found in the literature review (Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick 2009). Maylone, Ranieri, Quinn-Griffin, McNulty and Fitzpatrick (2009) found that NPs rated their perceptions of collaboration with physician colleagues as high.

A weak, but positive correlation was found between NP years of practice and NP viewed as a collaborator and colleague to the physician. Overall, the majority of the NPs (89%, n=56) feel that NPs and physicians should be viewed as a collaborator and colleagues. This may be an opportunity to educate physicians and health care professionals on the role of the NP and importance of collaboration. Schadewaldt, McInnes, Hiller and Gardner, (2013) identified themes and strategies from NP interviews for improving NP and physician collaboration. The themes and strategies found were of importance for educating physicians regarding the role of the nurse practitioner and nurse practitioner recognition.

The second hypothesis is that there is a positive relationship between nurse practitioner's attitudes and interprofessional collaboration. A Pearson correlation was calculated examining the relationship between attitudes and collaboration. No significant correlations was found examining the relationship between attitudes and collaboration. Both collaboration and attitude scores were positive, although no relationship between the concepts was found. The mean score found on the Collaborative Practice Scale was 4.60 out of 6. The higher the score the greater the level of collaborative practice (Weiss, 2006). The Jefferson Scale of Attitudes toward Physician-Nurse Collaboration was used to measure attitudes of NPs. A mean score was 3.36 out of 4 measuring attitudes was found. A high score on the scale suggests a more positive attitude toward collaboration (Hojat, Fields, Veloski, Griffiths, Cohen, & Plumb, 1999). The NP respondents reported positive attitudes and viewed themselves as having a collaborative relationship with physicians.

Frequencies were computed using results from the CPS and Jefferson Scale of Attitudes toward Physician-Nurse Collaboration. The majority of NPs (83%, n=52) subjects felt NPs should be accountable to patients for the care they provide. The NP subjects (81%, n=51) strongly agree that medical and NP students should be involved in teamwork in order to understand their respective roles. The literature found that a strategy to improve teamwork is to educate the physicians on the NP role (Schadewaldt, McInnes, Hiller & Gardner, 2013). Clarin (2007) also identified barriers to effective NP and physician collaboration, which was a lack of knowledge of the NP role. The majority of the NP subjects (89%, n=56) report that NPs should be viewed as collaborator and colleague with a physician. These results are similar to the findings in the study by Maylone, Ranieri, Quinn-Griffin, McNulty & Fitzpatrick (2009) which NPs rated high levels of perceptions of collaboration and autonomy.

Limitations

One major methodological limitation of this practice dissertation project was sample size (n=63). The sample of NP subjects was homogeneous representative of predominately-white middle-aged females. The Collaborative Practice Scale and Jefferson Scale of Attitudes toward Physician and Nurse Collaboration were originally used with nurses and adapted for use with NPs. Nurse Practitioners (NPs) are nurses with a masters or doctorate degree and have advanced clinical training and practice beyond the registered nurse preparation (AANP.org, 2014). The majority of the studies that used the Collaborative Practice Scale were evaluating nurse and physician collaboration. There was a limited time element for this practice dissertation project which is the reason for the sample size of (n=63) and limit to three settings. The demographics were compared to

the American Association of Nurse Practitioners National NP Sample Survey (Goolsby, 2005). The NPs surveyed were found to have similar demographics to the sample in this practice dissertation project and could be generalized to all nurse practitioners. Future studies could include larger, heterogeneous random samples in order to generalize findings to all NPs working in the U.S.

Interprofessional Collaborative Practice.

This practice dissertation project was framed by the Core Competencies for Interprofessional Collaborative Practice (Interprofessional Education Collaborative Expert Panel, 2011). The Core Competencies for Interprofessional Collaborative Practice framework is based on the necessity for safe, high quality and patient-centered care (Interprofessional Education Collaborative Expert Panel, 2011). This practice dissertation project supports the need for NP and physician interprofessional collaboration to improve health care outcomes and communication. Interprofessional collaboration is a shared authority and responsibility requiring open communication and shared decision making as a means of improving quality of care (Coluccio & Maguire, 1983). According to the findings of this practice dissertation project, NPs feel accountable for the care of the patient. The majority of NPs reported that physicians and NPs should be collaborators and colleagues. Both the CPS and JS results indicated positive attitudes towards collaborative practice.

DNP Essentials

This practice dissertation project relates to several of the Doctorate of Nursing Practice Essentials, which reflects DNP practice (AACN, Hathaway, Allan, Hamric, Honig, Howe, & Keefe, 2006). Essential II cites the importance of Organizational and

Systems Leadership for Quality Improvement and Systems Thinking. This project is an example of quality improvement strategies for a positive practice change. This practice dissertation project can serve as a guide to continue further research for health care professionals to a more effective collaborative practice.

Clinical Scholarship and Analytical Methods for Evidence-Based Practice refers to DNP Essential III. The findings report positive results of attitudes and collaboration. Further research is necessary to determine patient outcomes and interprofessional collaboration. Doctorate of nursing practice graduates and nurse practitioners need to continue to educate physicians, health care professionals and the public on the role of the NP. Participation in collaborative practice is critical for DNP/NP for the advancement of the profession.

Interprofessional Collaboration for Improving Patient and Population Health Outcomes refers to DNP Essential VI. This dissertation practice project results indicates positive collaborative practices based on the CPS findings. Further studies need to be conducted to determine patient and population health outcomes resulting from interprofessional collaboration. The Institute on Medicine (2003) reports that interprofessional collaboration between health care professionals is necessary to provide safe, efficient and patient-centered care.

Implications for Advance Nursing Practice.

The findings of the study are significant to nurse practitioners and doctorate of nursing practice graduates. The IOM report (2010), *The Future of Nursing; Leading Change, Advancing Health* emphasized the importance of nurse practitioners and

doctorate of nursing practice graduates in the delivery of health care. Nurse practitioners and doctorate of nursing practice graduates will continue to provide quality and effective evidence-based care. Further research is needed to continue to show the importance of nurse practitioners and doctorate of nursing practice graduates as health care providers, patient advocates and leaders in health care. Research, advocacy and education will eliminate some of the barriers that exist today in health care. Doctorate of nursing practice graduates are called upon to lead the changes in health care from a disease-based care model to prevention-based care model (Chism, 2012). This will take a team approach and interprofessional collaboration to change health care delivery and increase access to care.

Nurse practitioners and doctorate of nursing practice graduates, physicians and other health care professionals will need to collaborate and communicate effectively to provide safe evidence based patient care (IOM, 2011). The results of this practice dissertation project suggest a willingness to continue to strengthen interprofessional collaboration. Future studies can be conducted to evaluate programs to enhance interprofessional collaboration. The Core Competencies for Interprofessional Collaborative Practice serves as the framework for health care providers to providing safe, high quality, accessible, evidence based care (Interprofessional Education Collaborative Expert Panel, 2011).

Further studies can determine the attitudes of physicians toward NP and physician interprofessional collaboration. Reducing the barriers and increasing education is of critical importance for effective interprofessional collaboration. This practice dissertation project reports on some of the key research findings, current literature, and

interprofessional collaboration framework to educate health care professionals on importance of interprofessional collaboration.

Overall, this practice dissertation project is valuable to all health care professionals working together to provide quality evidence-based care. The importance of communication, collaboration, and teamwork is vital for health care professionals. The findings suggest that nurse practitioners view themselves as colleagues and collaborators with physicians. With all the current changes in health care and access to care, NPs and DNPs will be needed to fill the gaps in care. Physicians and NPs will need to continue to effectively communicate and collaborate to provide care for patients in this complex health care environment. Nurse practitioners and doctorate of nursing practice graduates will continue to be a vital part of the health care team. The most important goal being patient centered quality health care delivery using evidence-based practice. Identifying health care needs or problems guide future research and evidence based practices.

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Appendix A

Subject: Collaborative practice scale
From: Solorio, Sharon (Sharon.Solorio@nursing.ucsf.edu)
To: amysuenp@yahoo.com;
Cc: sandra.weiss@nursing.ucsf.edu;
Date: Friday, October 18, 2013 11:49 AM

Hello Amy:

Please find enclosed a copy of the Collaborative Practice Scales with their scoring instructions. Please remember to send Dr. Weiss a summary of your findings.

Thank you, Sharon

-----Original Message-----
From: Weiss, Sandra
Sent: Thursday, October 17, 2013 6:16 PM
To: Amy Quinlan
Cc: Solorio, Sharon
Subject: RE: Collaborative practice scale

Dear Amy....There is no fee for use of the questionnaire. I am copying my assistant, Sharon Solorio, on this email so that she can send you the measure and scoring procedures. Please send me a summary of your finding. I hope the study goes well. .....Sandra Weiss

Sandra J. Weiss, PhD, DNSc, FAAN
Professor and Eschbach Endowed Chair
Department of Community Health Systems
University of California, San Francisco
(415) 476-3105

From: Amy Quinlan [amysuenp@yahoo.com]
Sent: Saturday, October 12, 2013 9:01 AM
To: Weiss, Sandra
Subject: Collaborative practice scale

Dear Sandra Weiss,
My name is Amy Quinlan and I am a Doctorate of Nurse Practice student at William Paterson University. I am conducting a research project on nurse collaboration. I am requesting permission to use the CPS questionnaire. Is there a fee to use the scale?
Thank you,
Amy Quinlan

Subject: RE: Collaborative practice scale

From: Weiss, Sandra (sandra.weiss@nursing.ucsf.edu)

To: amysuenp@yahoo.com;

Date: Sunday, May 4, 2014 11:31 PM

Hi amy....Yes, it is fine to use the Scales with NPs. I look forward to seeing your results....Sandra

Sandra J. Weiss, PhD, DNSc, FAAN
Professor and Eschbach Endowed Chair
Department of Community Health Systems
University of California, San Francisco
(415) 476-3105

From: Amy Quinlan [amysuenp@yahoo.com]
Sent: Saturday, May 03, 2014 6:51 PM
To: Solorio, Sharon; Weiss, Sandra
Subject: Re: Collaborative practice scale

Dear Dr. Sandra Weiss,
I had sent you an email in October requesting to use your CPS scale for my DNP dissertation project. My original email did not specify that I wanted to use this scale for nurse practitioners. Can I have permission to use this scale for nurse practitioners? When I am done with my project, I will share the findings with you.
Thank you,
Amy Quinlan
William Paterson University
On Friday, October 18, 2013 11:49 AM, "Solorio, Sharon" <Sharon.Solorio@nursing.ucsf.edu> wrote:
Hello Amy:
Please find enclosed a copy of the Collaborative Practice Scales with their scoring instructions.
Please remember to send Dr. Weiss a summary of your findings.
Thank you, Sharon

-----Original Message-----
From: Weiss, Sandra
Sent: Thursday, October 17, 2013 6:16 PM
To: Amy Quinlan
Cc: Solorio, Sharon
Subject: RE: Collaborative practice scale

Dear Amy....There is no fee for use of the questionnaire. I am copying my assistant, Sharon Solorio, on this email so that she can send you the measure and scoring procedures. Please send me a summary of your finding. I hope the study goes well. .....Sandra Weiss

Sandra J. Weiss, PhD, DNSc, FAAN
Professor and Eschbach Endowed Chair
Department of Community Health Systems

Appendix B

Subject: Re: Jefferson Scale of Attitudes

From: Amy Quinlan (amysuenp@yahoo.com)

To: Mohammadreza.Hojat@jefferson.edu;

Date: Tuesday, March 18, 2014 1:09 PM

Dr. Hojat,
Thank you for your prompt response.
I would like to use the Jefferson Scale of
Attitudes toward Physician/Nurse Collaboration.
This is for my Doctorate of Nursing Practice project.
I appreciate your permission to use your scale!
Thank you,
Amy Quinlan

Sent from my iPhone

On Mar 18, 2014, at 11:04 AM, Mohammadreza Hojat <Mohammadreza.Hojat@jefferson.edu> wrote:

Hi Amy,

From the messages I received it was not clear to me if you are interested in using the Jefferson Scale of Physician Lifelong Learning (JeffSPLL) or the Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration (JSAPNC)? Please clarify, and I will send you a copy of the instrument and its scoring instructions. In any event, you have our permission to use any of these scales in your not-for-profit research, given that the Jefferson copyright sign will appear in any copy you will be using in your project, and proper credit is given to the original source(s).

Good luck and inform us of your progress,

(-:

Hojat

- **Mohammadreza Hojat, Ph.D.**
- Research Professor of Psychiatry and Human Behavior
- Director of Jefferson Longitudinal Study
- Center for Research in Medical Education and Health Care
- Jefferson Medical College, Curtis Building
- 1015 Walnut Street, 3rd Floor, Suite 320
- Philadelphia, PA 19107, USA

Appendix C

William Paterson University
Project Title: Attitudes of Nurse Practitioners Toward Collaboration
Principal Investigator: Amy Quinlan
Faculty Sponsor: Dr. Nadine Aktan
Faculty Sponsor Phone Number: 973-720-2527
Department: Doctor of Nursing Practice Program
Course Name and Number:
Protocol Approval Date:
IRB Contact Phone Number: 973-720-2852

Dear Nurse Practitioners Colleagues,

My name is Amy Quinlan and I am a Doctorate of Nursing Practice Student at William Paterson University in Paterson, NJ. I am conducting a written study to examine Nurse Practitioner's attitudes toward Physician and Nurse Practitioner Interprofessional Collaboration. The goal of the study is to identify barriers and strategies to improve NP and physician interprofessional collaboration.

If you agree to participate, we will ask you to complete a survey questionnaire (which will take approximately 10 minutes) regarding your experience with NP and physician collaboration.

Participation is voluntary. You may withdraw from the study at any time and this will not affect you in any way. The information will be stored in a safe secure location and the data will be destroyed when this research is completed. The survey does not include your name or any other identifying information.

Thank you for participating in this study.

Sincerely,

Principal Investigator

Appendix D

Demographics Sheet

For the following items, please select one response that is most descriptive of you.

1. **Gender:** **Female** **Male**

2. **Age:** **20-30** **31-40** **41-50** **51-60** **61-70** **71-80** **>81 years old**

Do you practice in a:

Private practice
Clinic
Hospital
Other_____

3. **Area of specialty**_____

4. **How long have you been a nurse?**

0-5 years **6-10 years** **11-15 Years** **16-20 years** **21-25 years** **26-30 years** **31-35 years** **>36 years**

5. **How long have you been a Nurse Practitioner?**

0-5 years **6-10 years** **11-15Years** **16-20 years** **21-25 years** **26-30 years** **31-35 years** **>36 years**

6. **How long have you been practicing at your current position?**

0-5 years **6-10 years** **11-15 years** **16-20 years** **21-25 years** **26-30 years** **31-35 years** **>36 years**

7. **What is your highest level of education?**
   BSN
   MSN
   DNP
   PhD
   Other_____

Appendix E

Collaborative Practice Scale

INSTRUCTIONS: Please place an **X** for your response on the line for the following statements ranging from **Never to Always**.

1. I ask physicians about their expectations regarding the degree of my involvement in the health care decision-making process.
   Never:_____:_____:_____:_____:_____:_____:Always

2. I negotiate with the physicians to establish our responsibilities for discussing different kinds of information with patients.
   Never:_____:_____:_____:_____:_____:_____:Always

3. I clarify the scope of my professional expertise when it is greater than the physician thinks it is.
   Never:_____:_____:_____:_____:_____:_____:Always

4. I discuss with the physicians the degree to which I want to be involved in planning and implementing aspects of patient care.
   Never:_____:_____:_____:_____:_____:_____:Always

5. I suggest to physicians patient care approaches that I think would be useful.
   Never:_____:_____:_____:_____:_____:_____:Always

6. I discuss with physicians areas of practice that reside more within the realm of medicine than nursing.
   Never:_____:_____:_____:_____:_____:_____:Always

7. I tell physicians when, in my judgment, their orders seem inappropriate.
   Never:_____:_____:_____:_____:_____:_____:Always

8. I tell physicians of any difficulties I foresee in the patient's ability to deal with certain treatment options and their consequences.
   Never:_____:_____:_____:_____:_____:_____:Always

9. I inform physicians about areas of practice, which are unique to NPs.
   Never:_____:_____:_____:_____:_____:_____:Always

Appendix F

Jefferson Scale of Attitudes toward Physician-Nurse Collaboration

INSTRUCTIONS: Please indicate the extent of your agreement or disagreement with following statements by circling the appropriate number.

1=Strongly Disagree
2=Tend to Disagree
3= Tend to Agree
4= Strongly Agree

1. A nurse practitioner (NP) should be viewed as a collaborator and colleague with a physician rather than his/her assistant……4 3 2 1
2. NPs are qualified to assess and respond to psychological aspects of patients' needs……...4 3 2 1
3. During their education, medical and NP students should be involved in teamwork in order to understand their respective roles……4 3 2 1
4. NPs should be involved in making policy decisions affecting their working conditions……4 3 2 1
5. NPs should be accountable to patients for the care they provide……...4 3 2 1
6. There are many overlapping areas of responsibility between physicians..4 3 2 1 and nurse practitioners
7. Nurse practitioners have special expertise in patient education and……..4 3 2 1 psychological counseling
8. Doctors should be the dominant authority in all health care matters…….4 3 2 1
9. Physicians and NPs should contribute to decisions regarding the hospital discharge of patients……4 3 2 1
10. The primary function of an NP is to carry out the physician's orders…..4 3 2 1
11. NPs should be involved in making policy decisions concerning the the hospital support services upon which their work depends…….4 3 2 1
12. NPs should also have responsibility for monitoring the effects of medical treatment……...4 3 2 1

13. Physicians should be educated to establish collaborative relationships with NPs……4 3 2 1

14. NPs should clarify with physician's orders when they feel that it might have the potential for detrimental effects on patients……..4 3 2 1

15. Interprofessional relationships between physicians and NPs should be Included in their educational programs……4 3 2 1

Appendix G

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)

HUMAN RESEARCH CURRICULUM COMPLETION REPORT

Printed on 10/01/2013

LEARNER	Amy Quinlan (ID: 3796539)
DEPARTMENT	DNP
PHONE	201-245-3590
EMAIL	giaguzzia@student.wpunj.edu
INSTITUTION	William Paterson University
EXPIRATION DATE	09/30/2016

GROUP 2: WILLIAM PATERSON UNIVERSITY STUDENTS

COURSE/STAGE:	Basic Course/1
PASSED ON:	10/01/2013
REFERENCE ID:	11427040

REQUIRED MODULES	DATE COMPLETED
Belmont Report and CITI Course Introduction	10/01/13
Students in Research	10/01/13
William Paterson University	10/01/13

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid Independent Learner. Falsified information and unauthorized use of the CITI Progam course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Program Course Coordinator

St Joseph's Healthcare System

703 Main Street
Paterson, New Jersey 07503

INSTITUTIONAL REVIEW BOARD
(973) 754-2768 FAX (973) 754-4355
FWA00001533 IRB00000892 IORG0000560
EXEMPT DETERMINATION - 2014

August 5, 2014

Amy Quinlan, APN
25 Tall Woods Drive
Manalapan, NJ 07726

Dear Ms. Quinlan:

EX#2014-45, "Attitudes of Nurse Practitioners towards Collaboration." Department of Nursing. Your protocol and data collection sheet was approved through Exempt determination by Dr. Patrick Perin on August 5, 2014.

I have reviewed your aforementioned project and found that this project falls under "Categories of Research Exempt from Review." This study does not have to go before a convened meeting of the IRB and does not require any further action on behalf of the Board nor myself. Upon completion of this study, I request that a final report on your findings be submitted to the IRB to be shared with the Board.

We here at St. Joseph's IRB wish you the best of luck with a successful completion of your project.

Yours very truly,

Patrick V. Perin, MD
Chairman, Institutional Review Board

PVP/lh

St Joseph's Regional Medical Center

703 Main Street
Paterson, New Jersey 07503
973.754.2000

IRB Office Use Only

PR#_____

EU#_____

EX# 20145

INSTITUTIONAL REVIEW BOARD

APPLICATION FOR INITIAL PROTOCOL REVIEW

PLEASE TYPE OR PRINT

ALL FIELDS MUST BE COMPLETE: IF IT DOES NOT APPLY PLEASE WRITE IN N/A

DATE: 06/30/14

Type of Review ☐ **Full Board Review** **X Expedited Review** ☐ **Exempt Status** ☐ **NCI CIRB Facilitated Review**

Protocol Title:
Attitudes of Nurse Practitioners Toward Collaboration

Name of Physician/Principal Investigator: Amy Quinlan, APN	Dept. Nursing
Mailing Address: 25 Tall Woods Drive Manalapan, NJ 07726 **_X__CV and Human Protection Course**	Phone Number: 201-245-3590 Fax No: 732-294-8930 E-mail address: Amysuenp@yahoo.com or quinlana2@student.wpung.edu
** If you wish to designate a contact other than the PI to receive correspondence regarding this IRB submission, please include their information, i.e. **(Coordinator- Data Manager)**	
Name of Contact: Dr. Nadine Aktan Phone Number: 973-720-2527 Room location:_____	Fax No: E-mail address: AKTANN@wpunj.edu **___CV and Human Protection Course**
Department Chairman Approval Letter Attached : Y/N	Magnet Credit RN(s): _____
Resident Program Mentor _____	**Dated:**__/__/__**Signature:**_____

Human Protection Course Certificate (HPCC): All persons participating in research must complete this course. Certificate must be re-submitted with each application.

Co-Investigator:	CV and HPCC
_____ **Dated:**__/__/__**Printed name:**_____ **Co-Principal Investigator**	
_____ **Dated:**__/__/__**Printed name:**_____ **Co-Principal Investigator**	
_____ **Dated:**__/__/__**Printed name:**_____ **Co-Principal Investigator**	
_____ **Dated:**__/__/__**Printed name:**_____ **Co-Principal Investigator**	

THE WILLIAM PATERSON UNIVERSITY OF NEW JERSEY

INSTITUTIONAL REVIEW BOARD FOR HUMAN SUBJECT RESEARCH

c/o Office of Sponsored Programs
Raubinger Hall, Room 309
973-720-2852 (Phone)
973-720-3573 (Fax)
http://www.wpunj.edu/osp/

Chair: Professor Michael Figueroa (FigueroaM@wpunj.edu)
College of Science and Health
Contact: Martin Williams (williamsm@wpunj.edu)
Office of Sponsored Programs

To: Amy Quinlan
Department of Nursing, Doctorate of Nursing Student

From: Martin B. Williams Martin B. Williams

Subject: IRB Approval (Exempted Review)

Study: Protocol # 2014-366: Nurse Practitioner and Physician Interprofessional Collaboration.

Date: June 18, 2014

The IRB has APPROVED the above study involving humans as research subjects. This study was approved as: Category: Exempted; vulnerable population: None.

IRB Number: 2014-366 This number is WPU's IRB identification that should be used on all consent forms and correspondence.

Approval Date: 06/18/2014
Expiration Date: 06/17/2015

This approval is for one year. It is your responsibility to insure that an application for continuing review approval (WPU IRB Form Appendix D) has been submitted before the expiration date noted above. If you do not receive approval before the expiration date, all study activities must stop until you receive a new approval letter. There will be no exceptions. In addition, you are required to submit an Appendix D form at the conclusion of the project. The WPU IRB will accept a report submitted to another office or agency (i.e. ART report) in lieu of the narrative report of progress attachment to Appendix D. The Appendix D can be accessed at: http://ww3.wpunj.edu/osp/ .

Consent Form: All research subjects must use the approved Informed Consent Form. You are responsible for maintaining signed consent forms (if approved for Active Consent format) for each research subject for a period of at least three years after study completion.

Mandatory Reporting to the IRB: The principal investigator must report immediately any serious problem, adverse effect, or outcome that is encountered while using human subjects or any complaints from your subjects. In addition, the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol using Appendix D.

Amendments/Modifications: You are required to carry out this research as described in the protocol. All amendments/modifications of protocols involving human subjects must have prior IRB approval, except

those involving the prevention of immediate harm to a subject. Amendments/Modifications for the prevention of immediate harm to a subject must be reported within 24 hours to the IRB using Appendix D.

For exempted and expedited review protocols: the protocol will be reviewed by the entire IRB committee at its next meeting. Should questions arise that cannot be answered by the materials already provided, additional information may be requested from you. This most likely will not affect the approval status of your project—you are approved to initiate the project as of the date above, and you will not receive notice of the committee's final review. Only in the rare situation when serious questions arise will the IRB instruct that the project be discontinued until those questions are answered.

Records/Documentation: You are required to keep detailed records concerning this research project and appropriate documentation concerning Informed Consent in a readily accessible location for a period of not less than three (3) years. The IRB reserves the right to inspect all records, research tools and databases that are associated with this research.

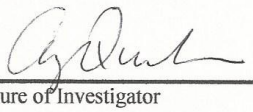
If you have any questions, please do not hesitate to contact Martin Williams at 973-720-2852 or williamsm@wpunj.edu, or the IRB Committee Chairperson, Dr. Michael Figueroa, at FigueroaM@wpunj.edu.

Good Luck on your project.

Sign the Verification Statement below. Return the original signed copy of this memo to the IRB Office, c/o Office of Sponsored Programs, Raubinger Hall room 309, and retain a copy for your records. The IRB Office must receive the signed verification statement before research may begin.

VERIFICATION:

By signing below, I acknowledge that I have received this approval and am aware of, and agree to abide by, all of its stipulations in order to maintain active approval status, including timely submission of continuing review applications and proposed protocol modification, as well as prompt reporting of adverse events, serious unanticipated problems, and protocol deviations. I am aware that it is my responsibility to be knowledgeable of all federal, state and university regulations regarding human subjects research.



June 18, 2014

Signature of Investigator Date