# DEVELOPMENT OF A SURVEY TO DETERMINE PERCEPTIONS OF PHYSICIANS OF COLLABORATIVE PRACTICE ARRANGEMENTS WITH ADVANCE PRACTICE NURSES IN PRIMARY CARE

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## ABSTRACT

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Advance practice nurses are crucial to providing health care in the current primary care system. A collaborative arrangement between advance practice nurses (APNs) and physicians has many benefits both financially and professionally for both disciplines, as well as clients and families; however, APN's remain underutilized in collaborative practice arrangements with physicians for a host of reasons. Therefore, the purpose of this project is to develop a survey to determine physician perceptions of collaborative practice arrangements with advance practice nurses in primary care. Information regarding the character of barriers to collaborative practice as perceived by physicians is critical to identifying strategies to overcome those barriers.

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# INTRODUCTION

## BACKGROUND OF THE PROBLEM

Despite aggressive attempts to contain health care costs since the early 1980's, advance practice nurses have come under scrutiny in primary care. Research supports that nurse practitioners are successfully employed in a wide variety of health care structures--from settings supervised by physicians, to collaborative practice with other practitioners, to solo practice (McGarth, 1990; Mundinger, 1994). One goal of collaborative practice is to improve health care services while defining professional standards of practice (Sebas, 1994). Advance practice nurses recognize the need to define the standards of practice that might conceivably change negative attitudes and perceptions based on a lack of direct experience or knowledge by physicians and the public.

Research has also supported the premise that collaborative practice between advanced practice nurses and physicians significantly increase access to care for the underserved populations as well as impact the increasing cost of providing health care (Fagin, 1990). Unfortunately, inaccurate stereotypes and beliefs of the role and scope of practice of the advance practice nurses by physicians is one barrier to utilization of advance practice nurses (Sebas, 1994). Increased utilization necessitates that the role and scope of practice of the advanced practice nurse become clarified. The identification of physician perceptions of

advance practice nurses is an essential first step towards the purpose of advancement of the APN role in primary care and collaborative practice. The purpose of this project is to develop a survey to determine physician perceptions of advance practice nurses in collaborative practice arrangements in primary care.

The first physician-nurse collaborative team of Drs. Henry K. Silver, a physician, and Loretta C. Ford, a nurse, broke new ground in the 1970's with the inception of a pediatric nurse practitioner certificate program that expanded the skills of professional nursing through advance education (McGrath, 1990). In a 1993 publication A Primary Care Primer the W.K. Kellogg Foundation announced that of 2.2 million registered nurses in the United States, more than 100,000 are considered advance practice nurses. Advance practitioners deliver expert care, manage patients and their families, teach, consult, research, and identify the needs of patients within the environment in which they practice (Madden et al., 1994). Further, APN's provide care that emphasizes early interventions and the ongoing management of patient health status (Schaffner et al., 1995). Advance practice nurses are employed in specialties such as mental health, oncology, or cardiology, as health educators, or in primary care settings with emphasis on common chronic conditions such as diabetes and hypertension (Sharp, 1994). The federal government has estimated that by the year 2000, 200,000 advance practice nurses will be required to meet the growing health care demands that

includes increased client acuity and advance technology, but fewer health care dollars (Nuccio et al., 1993). Data supports that advance practice nurses either independently or collaborative can provide a variety of high quality services that impact client outcomes in a cost effective manner (Brunk, 1992).

Advance practice nurses are underutilized in collaborative practice arrangements with physicians. Barriers to full utilization may be hindered by physician beliefs, inaccurate perceptions, or lack of knowledge. The purpose for this project is the development of a survey that identifies physician perceptions of the advance practice nurse and collaborative practice arrangements in an attempt to isolate new data to support future actions and outcome goals.

## LITERATURE REVIEW

The following section will define the key concepts of: 1) advanced practice nurse; 2) primary care; 3) collaborative practice; and 4) physician perceptions to provide a structure upon which this scholarly project is developed. The key variables will be defined by a focused review of the literature in which each concept is discussed.

### Definition of Key Concepts

#### Advanced Practice Nurse

In 1992, the American Nurses Association at the Congress of Nursing Practice approved the following definition of advance clinical practice:

> Advance practice nurses have a graduate degree in nursing. They conduct comprehensive health assessments, demonstrate a high level of autonomy and possess expert skills in the diagnosis and treatment of complex responses of individuals, families, and communities to actual or potential health problems. They formulate clinical decisions to manage acute and chronic illness and promote fellness. Nurses in advance practice integrate education, research, management, leadership and consultation into their clinical role and functions in collegial relationships with peers, physicians, professionals and others who influence the health environment (Berger et al., 1996, p.250).

From a historical perspective, the advanced practice nurse (APN) movement began in the mid 1960's consequently from the shortage of primary health care physicians. In 1965, the first short term practitioner certificate based program commenced at the University of Colorado, in conjunction with a nurse-physician team, Loretta C. Ford, RN, and Dr. Henry Silver (Mundinger, 1994). Before the mid-1970's there were more than 500 certificate programs to educate nurses as primary care providers (Koch et al., 1992). At present there are more than 100,000 advanced practice nurses provide access to health care throughout the country and the number continues to increase.

Advanced practice nurse education has shifted focus from a diploma based model to a graduate level education in colleges and universities. Focus is placed on nursing theory, holistic patient management, health promotion, and disease prevention (El-Sherif, 1995). Core curriculum for the education of advanced practice nurse programs has similarities throughout the country. Emphasis is placed on pharmacology, primary care, physician assessment, nutrition, and the taking of history. Among all the curricula there is little variability from program to program. Rooted in nursing theory, the APN role, which evolved from a medical component, provides an evolved educational foundation to fully evaluate and treat clients (Forbes et al., 1990).

Support for advance practice nurses in primary care is reflected in literature (Brown et al., 1995; Genet et al., 1995; Koch et al., 1992; Kerekes et al., 1996). The safety, cost effectiveness, and high quality of care provided by advance practice nurses in primary care is also well documented (Ethridge, 1991; Boyle & Jennings, 1993; Shamian et al., 1994; Shay et al., 1996). Support and visibility of the advance practice nurse has increased and, therefore, public awareness, but barriers continue to block full utilization of highly educated and qualified APN primary care providers. Reimbursement of services provided by advance practice nurses by third party payers is one such barrier that has come under investigation. Research and evaluation studies over the years has provided a base for professional practice, a data base for political arenas, and

health policy influence to minimize such barriers to advance practice (Jacox, 1987).

In December, 1986, a significant research study, (Jacox, 1987) commissioned by the United States Senate and published by the Congressional Office of Technology Assessment analyzed federal policy on direct and third party payment of advance practice nurse providers. Additionally, the quality and cost of care provided by advance practice nurses was examined. The policy analysis members consisted of external contractors and a twenty member advisory board that included nurses, physicians, economists, businessmen, consumers, and health policy analysts. The study analyzed advance practice roles in the health care market, coverage and direct payment practices for health care service by third party payers, and finally potential benefits of increased utilization. The study findings, based upon extensive review of literature and data, supported that care provided by advance practice nurses is cost effective and beneficial to the public by increasing access to care and decreasing cost of that care. The study further recommended changes in societal and public policies to increase the potential benefits and remove financial barriers for advanced practice.

In the United States occupational licensure, which includes all professional licensing, is left to individual states. Individual certification as advanced practice nurses by a state certificate provides a separate title, a defined scope of practice, and self responsibility for

actions. In a 1980 publication Nursing: A Social Policy Statement, the American Nurses Association supported advance practice nursing recognition through national associations rather than at the state level. As a result of this action stratification of advance practice level of education is recognized by all states at the graduate level, yet a singular method of certification and therefore legal practice recognition is lacking (Mezey et al., 1993).

The public may be more informed about the physician assistant (PA), a health professional who works under direct supervision of a physician. A large proportion of PA programs offer baccalaureate degrees upon completion of a course of study of less than two years. The PA, unlike the advance practice nurse, is not an independent practitioner, but performs technical tasks that free the physician for more complex functions (Lombess, 1994).

Originally, APN educative programs were certification based. Currently, most programs are offered at the graduate level and the National Counsel of the State Boards of Nursing recommends masters' degree preparation for advance practice as well as a requirement to sit for national certification exams (Wilson, 1994). Advance practice nurse programs focus on primary care with the development of highly developed assessment skills to fully evaluate and treat a variety of clients (Forbes et al., 1990). The advanced practice nurse is educated at the masters level and certified as expert in a specialty area.

Of the 2.2 million registered nurses currently licensed in the United States 25,000 nurse practitioners in mostly collaborative arrangements in primary care provide cost effective care to diverse populations (Sharp, 1994). The evidence to support advance practice nurses in the evolving health care market is supported by studies such as The Office of Technology Assessment (1987) which provided research data supportive to advance practice nursing in public policy. Further studies are necessary that can expand nursing opportunities in collaborative practice arrangements in particular and to promote the validity that advance practice nurses in the primary care market is economically sound. The development of a survey to determine physician perceptions of advance practice nurses in primary care and collaborative practice arrangements would increase the knowledge of advance practice role and therefore increase utilization by physicians and the public.

When looking at the multiple roles within the domain of the advanced practice nurse, there are a number with application to this project and will be further defined. These subroles include assessor, clinician, collaborator, case manager, and educator.

Assessor Role. Webster's dictionary (1983) defines an assessor as one who defines the worth or importance of something (p.36). Advance practice nurses function as primary health care providers usually within a specific group of physicians and clients. Advance practice nurses have advanced knowledge in assessment and diagnosis, as well

as pharmacology, health promotion, and disease prevention. Advance practice nurses are strong client advocates, as well as pharmacology, health promotion, and disease prevention. Advance practice nurses are strong client advocates, as well as accountable for high quality, cost effective care (Berger et al., 1996). Therefore, the subrole of assessor is one aspect that defines the role of the advance practice nurse.

Clinician Role. The clinician possesses the ability to formulate nursing diagnoses and to provide direct primary care based on sound theory and advanced clinical judgment to clients and their families in a variety of health care settings to promote self care capabilities, maintain health while preventing complications, develop coping skills, and manage disabilities (NUR 501 syllabus).

Research demonstrates that benefits and barriers to health care defined individually, which necessitates an individualized assessment, interventions, goals, and outcomes (Frenn et al., 1998). The advanced practice nurse educated at the master's level exercises clinical judgment with the focus of practice on patient-client-family in a clinical setting. Advance practice nurses possess the knowledge, skills, and abilities to provide health care in the current primary care setting.

Collaborator Role. Fagin (1992) defined collaboration as a relationship of interdependence that requires the recognition of complimentary roles. Recently cost constraints, provider competition, managed care, early hospital discharges and privatization of care has provided a

renewed interest in nurse-physician collaborative practice (Arslanian-Engoren, 1995).

Historically, the utilization of advance practice nurses has met with strong resistance from the American Medical Association. Recent changes in health care reform has increased recognition of advance practice nurses as collaborators by hospital administrators, insurance companies, and the public (Sharp, 1994). Increased recognition has promoted advanced practice nurses in the interdependent role within the medical community.

Case Management Role. The case management role is a patient care delivery that focuses on the achievement of specific outcomes within designated time frames and appropriate use of resources. The case manager must have excellent communication skills. Communication, negotiation, and collaboration are beneficial characteristics of the advance practice nurse to coordinate multidisciplinary collaboration within a specific time frame (Lynn-McHale et al., 1993).

The case management role of the advance practice nurse suggests case coordination across community and hospital settings to collaborate with other health care professionals. Literature strongly links advance practice and case management to cost savings, as promoting collaborative health care, and beneficial for clients, their families, physicians, and institutions (Lynn-McHale et al., 1993; Walton et al., 1993). Case management models describe methods for advance practice nurses to provide quality, cost

effective health care to specific populations within a particular institution. Advance practice nurses, role models with initiative, management, organizational and communication skills are supported with data as improving client care, enhancing quality of life for clients and families, while containing health care costs (Rheaume et al., 1994).

Educator Role. The advance practice nurse is in a unique role to provide education through interaction. Collaboration with physicians, with clients, families, and with other professionals increases empowerment of the advance practice nurse in the health care system. Graduate level education provides core competencies for the responsibility of the advance practice role of educator. Advance practice nurses are proactive in the education of clients and families in the management of their own health. Further, when clients are knowledgeable regarding goals and outcomes of interactions they become active participants in the health care system.

Advance practice nurses assume a leadership role in promoting and providing education within a specific area of practice and to a particular population. Advance practice nurses demonstrate expertise in developing and implementing teaching to diverse clients as well as integrate research into guidelines for care, policies, and procedures (Berger et al., 1996).

The role characteristics of assessor, clinician, collaborator, educator, and case manager describes the

inter-related roles of the advance practice nurse. Graduate level education is essential to the implementation of each of these roles. The development of a survey to determine physician perceptions of advance practice nurses would measure the significance of these roles and to potentially increase utilization by physicians.

Primary Care

In 1994 primary care was defined by the Institute of Medicine as "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health services by clinicians who are accountable for addressing a large majority of personal health services, developing a sustained partnership with patients, an practicing in the context of family and community" (Schouttz et al., 1997). In addition, primary care embodies the principles of equitable distribution, appropriate technology, a focus on health promotion, and disease prevention, community participation, and a multisectorial approach to improve health for the population.

With the enrollment of 130 million beneficiaries, managed care is the predominant mode of health care for privately insured consumers in the United States. Data confirms the aging of the population at a rapid rate and that less than 1% of clients accounts for 30% of health care costs (Malloy, 1997). As the population rapidly ages in the decades ahead, there will be a disparity of both monies and services towards the elderly generation. Primary care is

the delivery of personal health care in the community setting across all age spans and populations.

There is, in addition, a paradigm shift to disease management which attempts to control the costs of chronic diseases such as asthma, congestive heart failure, and diabetes through education, home care support, and a collaborative or consultant role with a nurse. Health promotion and consumer education allows clients to become partners in cost containment. The consumer is not passive, but rather a partner in health promotion (Fagin, 1992).

Advance practice nurses are taking positions to become proactive in the primary care market. Opportunities exist to increase visibility by becoming active in workshops, committees, and publishing. Advance practice nurses have been identified as health care providers who can improve client and family outcomes in a fiscally responsible way (Kane et al., 1991; Ethridge, 1991).

It is the data that supports outcomes that forms the foundation for legitimizing advance practice nurses while defining and affirming capabilities within the primary care health system. In a meta-analysis of advance practice nurses and the impact on both primary care roles and outcomes Brown et al. (1995), in a one year period collected published and unpublished data relating to advance practice nurses. Inclusion criteria included an intervention, then data derived from care provided in the geographic areas of United States and Canada with a control group within a managed care system, a measure of the impact of the

intervention, a specific experimental, quasi-experimental, or ex post facto design, and finally data that allowed calculations and direction of effect size. Ultimately, the study supported that advance practice nurses have greater client compliance with treatment recommendations, a higher degree of client satisfaction, and resolution of pathological conditions (Brown, 1995).

Kerekes (1996) provides data that supports the use of nurse managed primary care centers for community based, accessible care focused on those particular needs of the elderly and poor. A grant application was written to the Disadvantaged Minority Health and Improvement Act of 1990 requesting funds for the provision of first contact, comprehensive, longitudinal, and coordinated primary care to a disadvantaged population. Demographics of the population for the funding were; nearly one half of a population of 1,612 residents were younger than age 17, had female head of households, racially mostly black, with an average weekly income of less than one hundred dollars. The health care delivery model consisted of comprehensive, continuous, cost effective health care that was promoted by the residents themselves. Results concurred that primary care provided by advance practice nurses was more cost effective, accessible, with fewer hospital admissions, and with shorter lengths of stay when hospitalized and ultimately an improved health status.

For the purpose of this project primary care will be defined as comprehensive, longitudinal, accessible health

care to a diverse population who are largely underserved by the current health care system.

Collaborative Practice

Collaboration and interdisciplinary teamwork are roles that the advance practice nurse routinely use in primary care. Traditionally the relationship between nurses and physicians have been hierarchical, but currently it is evolving into one where each interacts as an equal. Collaboration enhances the roles of who and what advance practice nurses are, as well as enhance the credibility of the role.

The literature supports collaborative practice. In one phenomenological research study (Arslanian-Engoren, 1995), the data clearly reflected that advance practice nurses who are employed in a collaborative practice have increased satisfaction. They also express a collegial view of themselves as equal partners and capable of achieving autonomy in their area of expertise in health care. The purpose of the study was to examine the relationship between advance practice nurses and physician in a collaborative arrangement. Advance practice nurses were asked to verbally describe the meaning of collaboration, based on experiences with physicians. Analysis of the data concluded that mutual respect and trust was evident, that the role of advance practice is an evolutionary process, and with time collegial relationships are established and viewed as positive.

The role of nurse practitioner was first developed in the 1960's to provide cost effective primary care to

essentially vulnerable populations (Hester et al., 1996). Nursing literature has indicated that advance practice nurses in a collaborative practice are cost effective in the primary care setting (Sebas, 1994). The discipline of nursing has along tradition of working with and observing individuals and families in the context of where they live. Additionally to the treatment of injuries, it is the health promotion and education components that allow collaborative practices to be cost effective.

Documentation of collaborative practice outcomes are defined by quality of care, quantity of interventions, and cost or financial savings. During the 1970s and 1980s there was limited literature on outcomes and collaborative practice. Research in the 1990s impact studies supports that advance practice nurse interventions prevents rehospitalization of the chronically ill, that patients and their families received knowledge and followed treatment plans, and that effective management of patient care by multidisciplinary cooperation and communication were just a few benefits (McCaffrey-Boyle, 1995).

Collaboration occurs between health professionals with similar interests and personal and professional maturity levels. When these occur, five interactive processes are possible. These themes can be described as mutual respect and trust, which is a complex process, a collegial relationship that respects the nursing prospective, and a positive experience (Arslanian-Engoren, 1995). In a collaborative arrangement, a written agreement defines

practice guidelines and standards of care. Between physician and advance practice nurse a collaborative practice agreement establishes a level of care which the advance practice nurse agrees to, a mechanism for assessment of that care is established, and the manner in which conflicts are to be resolved (Sebas, 1994). Such an agreement supports joint decision making, definition of roles, and conflict resolution method in written form. Fagin (1992) in her view of the relationship between nurses as physicians has stated "collaboration is the preferable relationship and will be even more essential for good health care in the future (which is upon us)."

For the purpose of this project, collaborative practice will be described as an interdependent relationship between advance practice nurses and physicians. Barriers to collaborative practice are inaccurate perceptions and lack of direct experience with advance practice nurses by physicians and the public. Changing a negative attitude requires education and visibility (Sebas, 1994).

Physician Perceptions

A review of literature reveals that the study of physicians perceptions relating to advance practice nurses is limited. Much, however, has been published of physician opinions of advance practice nurse relating to the medical community and to the health care reform movement (Friedman, 1990).

Webster's dictionary defines perception as the mental grasp of objects, through the senses, insight or intuition,

or the knowledge received by perceiving (p.444). Bunting (1988) contributes the link of perception between person and nurse, person and environment, and person and health. Therefore, the concept of perceptions is a process of the mind that interprets subjective input. It is imprecise, usually based on past experience, and holds great interest to nursing research as a concept of importance (Bunting, 1988).

For the purpose of this project physician perceptions will be conceptually defined as a measure of knowledge, insight or intuition of physicians of advance practice nurses in collaborative practice arrangements in primary care.

Unfamiliarity is an obstacle that advance practice nurses themselves can rectify. Nursing literature supports that advance practice nurses provide the care that society needs and to be the leaders and innovators in the shaping of the market forces that are currently shaping health care. The development of a survey to determine physician perceptions of collaboration with advance practice nurses may pave the way towards meaningful co-existence and greater professional autonomy.

## Conceptual Framework

Imogene King has defined nursing as "perceiving, thinking, relating, judging, and acting the behaviors of individuals who come to a nursing situation to form a relationship". Nursing is "a process of action, reaction, and interaction where information is shared about

perceptions...." (King, p.2) and that nursing and individuals interact in a social system for the purpose of setting goals. Thus, nursing might be described as an evolving relationship with a basis in non observational behaviors.

The conceptual framework for this project is based on the work of Dr. Imogene King who originally developed her conceptual framework while working towards a master's degree in nursing at Loyola University in 1961. In an attempt to develop a definitive supportive structure for nursing as a discipline and a profession, Dr. King reviewed literature from psychology, sociology, and nursing (Evans, 1991, p.4). Dr. King believed that nursing is an applied science and that "nurses are expected to integrate knowledge from natural and behavioral science and the humanities and to apply knowledge to concrete situations" (Hanacharurnkul, 1989).

Dr. King's conceptual framework is based on a general systems theory which looks upon the whole rather than the individual parts in examining relationships. Further, the framework postulates that the structure of the system is determined in an indirect method by the interactions of the individuals. Interaction provides the means to communicate and exchange information in a meaningful way.

Imogene King within the systems framework conceptualized that there were three interacting systems that determined how nurses organize knowledge, skills, and values that legitimize the function and value of nursing.

Personal systems are individuals as a total system, which forms groups called interpersonal systems. Some groups with common interests create social systems (King, p.10). The concepts that Dr. King developed within each of the three systems were arbitrarily placed, still the overall purpose of the framework was to facilitate interactions between individuals, groups, and society within a total environment (King, 1991).

Dr. King describes that it is the complexities of human behavior that prompted the conceptual framework. King further determined that nursing process involves functions of observing, measuring, synthesizing, interpreting, and analyzing, not as each individual actions, but simultaneously. The three systems and concepts provide a framework that is significant to nursing and to nursing practice (McQuiston & Webb, 1995, p.45). Dr. King's conceptual framework is a systematic approach for identifying independent nursing functions as well as collaborative activities with professionals.

Dr. King conceptualized a personal system as focused on individual human beings with relevance to concepts such as body image, perceptions, space, self, and time. By better understanding the individual, information on groups and communities might be applicable (McQuiston & Webb, 1995, p.46).

It is the interpersonal system that considers human interactions in terms of behaviors among individuals. King conceptualizes the process of human interaction with

communication, perceptions, transactions, stress, and role as constructs of human acts (King, 1981, p.102).

Social systems are defined as "an organized boundary system of social roles, behaviors, and practices developed to maintain values". Individuals share common goals and interests and the system exists for recognition of concerns of both individuals and subgroups. Concepts postulated by Dr. King within this system are authority, decision making, organization, power, and status (Evans, 1991, p.70).

King's theory postulates that nursing has always been about individuals and groups in a social system. Further, nursing interaction is a form of human interaction among individuals who come together to achieve goals (Hanucharurnkul, 1989). Communication involves the perception of both the sender and receiver, and according to King's conceptual framework, brings about an environment conducive to an exchange of information (McQuinston & Webb, 1995, p.51).

The concept of perception was significant within King's original framework. A concept is a mental image of something that is characteristic or generalizable. The concept of perception, based on prior experiences, self awareness, and personal history influences the process of interaction. Dr. King states that behavior flows from one's perceptions and perceptions influence behavior, that sensory experiences provide data that transforms memory and represents each individual's reality (Bunting, 1988).

Each individual communicates based on perceptions. Dr. King's conceptual framework demonstrates that interactions, characterized by verbal or nonverbal communication is an exchange of information. Further, elements in communication are a process within the interaction process for a purpose (King, 1991). Figure 1 is a schematic visualization of Imogene King's conceptual framework that describes her ideas.

Relevance and Relationship to this Project

The concepts developed in this project will be discussed within the conceptual framework of Imogene King. The perception of advanced nurses and the conceptual definitions of those role characteristics of advance practice nurses are sustained within King's framework. Specifically, it is the perceptions of physicians relating to advance practice nurses that is under scrutiny. Dr. King conceptualizes perceptions within the personal system, which is relevant in the understanding of human beings as persons. Perception is a central theme in King's conceptual framework and to nursing practice and, ultimately to this project. Communication, based on perceptions, is an elemental connection between advance practice nurses and physicians for the development of interactional exchange that generates a transaction or awareness.

Perceptions, according to King are an accumulation of knowledge over time from formal and informal sources. Perceptions are influenced by previous knowledge of the roles of the advance practice nurse, conceptually defined in

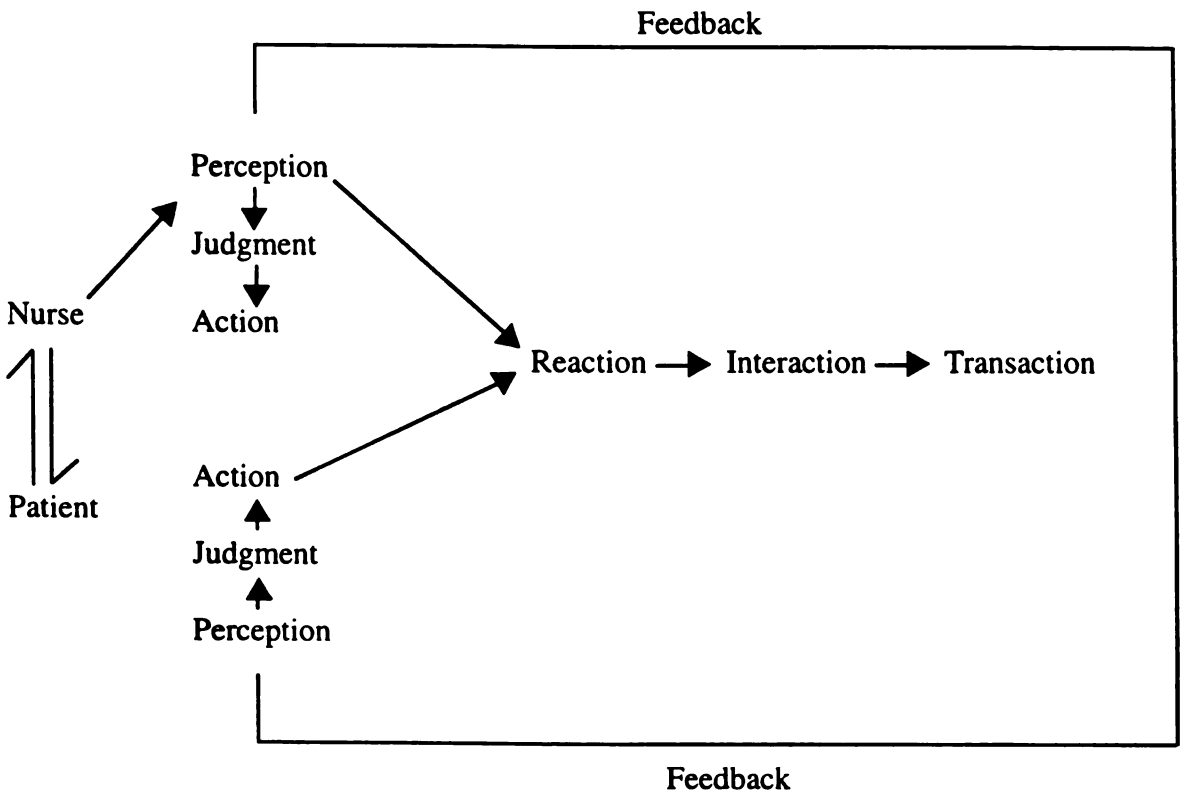


**Figure 1.** Model for a Process of Nurse-Patient Interaction. (King, I. (1981). A theory of nursing: Systems, concepts, process, p.61)

this project as educator, collaborator, case manager, assessor, and clinician. Roles are social forces, according to King, that influence function and provide knowledge within social systems such as the health care system (King, 1998, p.12). The perceptual knowledge of those roles by physicians provides both information and interaction, which

King conceptualizes is elemental for the understanding of the nature of groups.

King's conceptual framework supports that professional nurses are uniquely qualified at understanding interacting systems, and relationships of individuals and groups in any environment (King, 1991). Therefore, an interaction between advance practice nurse and physician to ascertain perceptions specific to professional nursing roles relating to primary care and collaborative practice would provide significant information towards addressing future actions and outcomes.

Interactions, according to King, are characterized by values and perceptions and involves a collaborative effort between individuals. Effective communication is a process where information is given from one person to another. It is a method of documenting in a systematic way the responses and behavioral changes in individuals (King, 1991, p.75). Figure 2 depicts an adaptation model of King's framework for this specific scholarly project.

Imogene King's conceptual framework supports the relevance of the project which is to obtain information from physicians relating to perceptions of advance practice nurses based on conceptually defined roles of nursing practice. The conceptual framework provides the framework for interactions which are influenced by perceptions, roles, beliefs, and past experiences. The framework will provide a conceptual direction in the development of the survey.

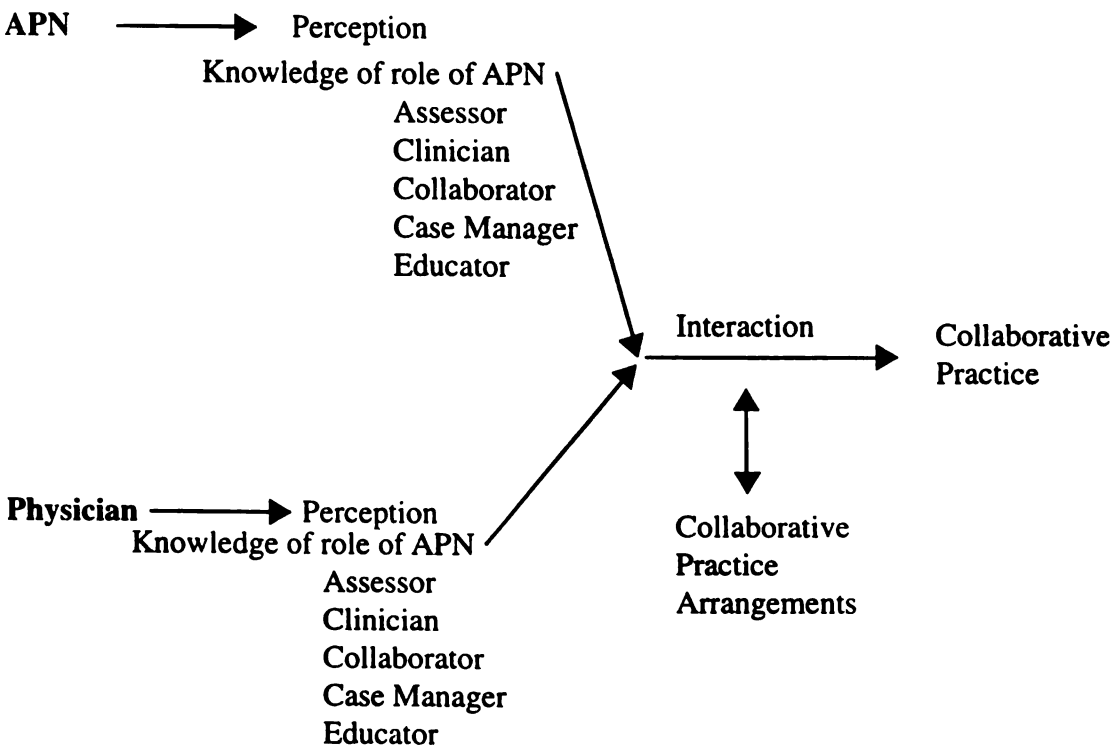


**Figure 2.** Imogene M. King. Adaptation fo King's model for the nurse-physician interaction process in collaborative practice.

## Survey Development

The survey development will originate from concepts from the adaptation of Imogene King's framework and relevant findings from the review of the literature. The literature and framework suggests the potential categories for the

survey. They are the following: 1) physician perceptions or beliefs relating to APNs; 2) physicians' knowledge of the roles of the APN and beliefs about the benefits of those roles in the delivery of primary care; 3) physicians' past interactions and experiences while working with APNs; 4) physicians' beliefs and knowledge regarding collaborative practice in primary care.

The survey designed for this project attempts to assess and evaluate physician knowledge of the specific roles of assessor, clinician, collaborator, case manager, and educator which encompass the survey categories. Each subrole has been conceptually defined as a variable from the literature review. Additionally, each subrole is incorporated within a category relating to physician perceptions, beliefs, and experiences with APNs in collaborative practice and the primary care system.

Self report is an appropriate method of gathering information relating to perceptions and attitudes. The strength of self report is the ability to communicate directly on subjects, such as thoughts and beliefs, that might be difficult to approach by any other method. Through direct communication with a particular target group, feelings, values, opinions, as well as retrospective and future behaviors can be measured with an instrument.

The survey incorporates a four point Likert scale to rank the magnitude of response in an increasing manner. Rationale for the use of the Likert scale is the ease of expressing an opinion on a declarative statement. The

response range of the scale is from 1=strongly disagree to 4= strongly agree. The response under investigation relate to pertinent questions regarding the roles of advance practice as well as the King's conceptual framework.

The survey questions reflect the roles of assessor, clinician, collaborator, case manager, and educator of the advance practice nurse as defined by the review of literature. Imogene King's conceptual framework provides the methodology of the interactive process involved in obtaining perceptual knowledge and defines categories within the survey of physicians' perceptions, beliefs, and knowledge. Questions one and five of the survey reflects the assessor role which correlates to the category of physicians' knowledge of the APN roles. Questions three, ten, and fourteen reflects the clinical role and the category of physicians' beliefs and knowledge regarding collaborative practice in primary care. Questions four, six, and nine the collaborator role which reflects perceptions about APNs. Questions seven and twelve the case management role, and two and thirteen the educator role which reflects physicians' beliefs of the usefulness of APNs in primary care. King's conceptual framework provides the process of communication for obtaining information. Communication is an interactive function towards the goal of mutual exchange. Survey questions eight, eleven, and fifteen describes the interpersonal relationship between APNs, clients, and collaborative practice arrangements

within King's conceptual framework and questions physicians' past interactions with APNs.

The survey has not been tested for validity and reliability. The purpose of a pilot study would be to test the feasibility of the project and to obtain information suggesting improvements. A pilot study will be accomplished by the mailing of ten surveys to randomly selected APNs and physicians in collaborative practice in Muskegon. Information gathered from this initial study would guide revisions and refinements necessary prior to the actual implementation of the survey. Demographics relating to each physician such as age and length of time of practice will be included in the study.

Target Group

The target group are all primary care physicians in the Muskegon area. The anticipated sample size will not be large, therefore every physician listed in the Muskegon Medical Society as either primary care or family practice will receive a survey. To maintain confidentiality, results of the survey will be reported in aggregate form. Every survey will have a cover letter explaining the nature of the study and a request for return within thirty days and enclosure of a return envelope.

Evaluation

The returned surveys will be collected from the physician subjects by mail within a thirty day period.

The Likert scale scores the strength of response to the survey questions. Evaluation of the data involves scoring

data into categories to determine strength of response to each question. Each survey questions attempts to measure beliefs, perceptions, and knowledge of physicians towards APNs, collaborative practice, and primary care.

## Implications for Advanced Practice Nurses

### Practice

The development of this survey attempts to determine physician awareness of advance practice nurses, their specific roles, and collaborative practice. The roles of assessor, clinician, collaborator, case manager, and educator are the attributes to measure physicians' perceptions of advance practice nurses with this survey. The survey would identify those physicians with positive responses. These physicians might be approached for assistance in further education of advanced practice nurses to their peers.

### Education

Based on the results of the survey, physician perceptions and knowledge of the roles of the advance practice nurse and in collaborative practice arrangements would be identified by analysis of the survey responses. The survey may also identify myths and barriers to APN utilization.

Increasing physician awareness of the roles of advance practice nurses and in collaborative practice arrangements begins with communication. Strategies for increasing communication can be developed when barriers and myths are understood. This might be accomplished by arranging

collaborative meeting between APNs and physicians such as joint continuing education forums.

Research

The survey will generate both new knowledge and new research questions. Research on the nature of the advance practice nurse with physicians in both collaborative arrangements and in the primary care system continues. This survey attempts to assess physicians' perceptions of advance practice nurses based on past experiences, beliefs, and perceptions. The survey measures the strength of responses of categories and roles as perceived by physicians. Potential future research for increasing knowledge, clearing myths, and the collaborative arrangement between APN and physician may be explored.

In summary, perceptions and knowledge are integral to the collaborative practice arrangements between physicians and advance practice nurses. This scholarly project is the development of a survey that attempts to identify what perceptions and knowledge are in place and what is not. With this data, future plans for education, communication, and information exchange will increase advance practice nurse utilization by physicians in collaborative practice arrangements.

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# APPENDIX A

## Cover Letter

Dear Dr.

I have developed a survey to better understand physician perceptions regarding advance practice nurses in primary care and collaborative practice arrangements as a scholarly project for the completion of my advance practice degree. Would you please assist me my reading and completing a survey?

Your name was randomly selected from a list of your peers. The survey is anonymous. It is hoped that you will freely give your honest opinion, but you may leave some questions blank. Please answer all the questions that you can.

A postage paid return envelope has been provided for your convenience. The survey should take no more than 15 minutes. To analyze the data, please return the survey within 30 days.

Thank you very much for your cooperation and assistance in this study.

# APPENDIX B

## Survey

The following statements attempts to better understand physician perception of advance practice nurses and collaborative practice arrangements. Please circle the number corresponding to the degree of importance you associate to your response.

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 1.APNs have sound assessment skills as a primary care provider | 1 | 2 | 3 | 4 |
| 2.APNs are knowledgeable in the proactive management of clients and family health | 1 | 2 | 3 | 3 |
| 3.The APN as a clinician with knowledge of nursing theory and clinical judgment benefits collaborative practice with physicians | 1 | 2 | 3 | 4 |
| 4.APNs in collaborative arrangements with physicians share complementary roles | 1 | 2 | 3 | 4 |
| 5.APNs knowledge of health promotion and disease prevention is cost effective in collaborative practice | 1 | 2 | 3 | 4 |
| 6.Primary care changes, cost constraints, and managed care are reasons for collaborative practice with APNs | 1 | 2 | 3 | 4 |
| 7.APNs in collaborative practice achieve effective outcomes within a cost effective timeframe | 1 | 2 | 3 | 4 |
| 8.The APNs in collaborative practice arrangements effectively communicate with physicians as equals | 1 | 2 | 3 | 4 |
| 9.The universal recognition of APNs in primary care has promoted acceptance in the medical community | 1 | 2 | 3 | 4 |

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10.The APN role emphasizes a holistic approach to clients and enhances collaborative practice | 1 | 2 | 3 | 4 |
| 11.APNs and physicians in collaborative arrangements can be equals in the practice | 1 | 2 | 3 | 4 |
| 12.Costs of health care are reduced by the conciliative role of APNS in collaborative practice | 1 | 2 | 3 | 4 |
| 13.APNs demonstrate expertise in the education of diverse populations in primary care | 1 | 2 | 3 | 4 |
| 14.APNs promote self care and health maintenance of clients which complements collaborative practice | 1 | 2 | 3 | 4 |
| 15.An essential factor in a collaborative practice is the interaction capabilities of the equal partners | 1 | 2 | 3 | 4 |

Questions or Comments:

Thank you.