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Intraprofessional Nursing Communication and Collaboration: APN-RN-Patient Bedside Rounding

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**INTRAPROFESSIONAL NURSING COMMUNICATION AND
COLLABORATION:
APN-RN-PATIENT BEDSIDE ROUNDING**

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Intraprofessional Nursing Communication and Collaboration: APN-RN-Patient Bedside Rounding

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Executive Summary

Leading advisory agencies have long advocated that health care must be safe and effective (Institute of Medicine [IOM], 2001). In order for health care to be safe and effective, good communication and collaboration are essential. Research has found that in health care, poor communication and teamwork failures are the major contributors to adverse events (Cornell, Townsend-Gervis, Vardaman, & Yates, 2014; The Joint Commission, 2011; O'Leary, 2012). Such communication-related adverse events can cause avoidable injury, loss of life, and financial devastation.

In light of advanced practice nurses' (APN) increasing contribution in care management, and in order to ensure delivery of high-quality patient care, hospital administrators and nurse executives in particular, must foster improved communication and collaboration between APNs and RNs. The potential benefits of improving APN–RN teamwork are multiple. For example, Naylor et al. (2013) have reported that, in their study, nurse-led interdisciplinary interventions resulted in quality improvement and cost savings.

One solution for improving communication within the health care team pertains to bedside rounding. Daily bedside rounding presents an opportunity for care team members to cooperatively develop and communicate care strategies. Staff nurses are typically not included in physician led patient rounds. This exclusion is unfortunate because, during rounds, nurses could provide essential nursing expertise and knowledge about patients' health status; furthermore, nurses are uniquely positioned to encourage patients' proactive participation in their own health care team.

The primary objective of the DNP project described in this doctoral project paper was to develop a structured learning module to improve collaboration and communication between APNs and RNs through the implementation of APN–RN patient bedside rounding. To establish a basis for creating the learning module, the DNP project began with an in-depth literature review of research on (a) APN–clinical nurse communication and collaboration and (b) the contributions of APNs and clinical nurses to the quality of patient care. Evidence-based best practice recommendations guided the development of the learning module to instruct APN and clinical nursing staff on proper communication and collaboration in conjunction with the use of a daily goals sheet to facilitate structured APN–RN–patient beside rounding. (For example, the use of bedside rounding with daily goal reminder sheets has demonstrated improved communication in patient-centered care.) King goal attainment theory provided the underpinning for this project with Knowles' conceptual framework of andragogy provided a methodology, framework, and mechanism that informed the learning module's design.

After an initial draft of the module was completed, it was sent to three of the hospital's APNs for their review; all of these APNs had had prior experience with APN–RN rounding at other hospitals. Following the APN's review, the main modifications of the learning module included expanding the explanations of (a) breakdown of communication (specifically, nonverbal communication), (b) roadblocks to collaboration, and (c) inclusion of the patient's family in rounding discussions, when possible discussion, when possible.

Bedside rounding presents a daily opportunity for health care team members to cooperatively strategize and to communicate the plan and goals of care to the patient and

family; this cooperative activity reflects a concerted team effort to achieve the patient's goals. Effective communication and collaboration are requisite for building a patient-centered care partnership. The learning module developed in this DNP project can assist APNs and RNs in improving their communication and collaboration.

Acknowledgements

For my Father, you are an inspiration to all who knew you and continue to guide me in spirit. You always inspired and encouraged me to achieve my dreams. You are my driving force, and I hope to make you proud. You will always be in my heart.

To Lori Candela, my chair, without your unending patience and support I would have never completed this project. From you I have learned perseverance and dedication. Because of you I will be a better nurse, leader and educator.

To Bruce Smith, my editor, I have started to learn the art of scientific writing. You have my unending gratitude and respect.

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Chapter 1

Introduction to Intraprofessional Nursing Communication and Collaboration:

Introduction

Leading advisory agencies have long advocated that health care must be safe and effective (Advisory Commission on Consumer Protection and Quality in the Health Care Industry, 1998; Institute of Medicine [IOM] Committee on Quality Health Care in America, 2001). However, in today's health care system, millions of Americans do not receive effective health care (Bender, Connelly, & Brown, 2013; Institute of Medicine [IOM], 2001). Ineffective care can result in patient care errors that cause financial devastation, avoidable injuries, and loss of life. According to the IOM, between 44,000 and 98,000 people die every year in U.S. hospitals due to medical errors (Sutcliff, Lewton, & Rosenthal, 2004).

In order for care to be safe and effective—and to minimize the potential for medical error—good communication within the health care team is essential. A lack of good communication can lead to adverse events, such as errors in diagnosis and treatment. Research has revealed that poor communication and teamwork failures are the major contributors to adverse events in health care (Cornell, Townsend-Gervis, Vardaman, & Yates, 2014; Fernandez, Tran, Johnson, & Jones, 2010; The Joint Commission, 2011; O'Leary et al, 2012; Sehgal & Auerbach, 2011). Moreover, for the U.S. economy as a whole, the cost of poor communication in health care contexts is substantial: up to $17 billion annually (Engum & Jeffries, 2012).

The APN–staff nurse relationship. Since the Accreditation Council for Graduate Medical Education initiated national mandates limiting residents to 80 hours of duty per

week, many health care organizations have employed APNs to accommodate staffing requirements for the provision of patient care (Morris et al., 2013). In the context of hospitals' increasing reliance on APNs to direct patient care, creation of a work environment that optimizes collaboration between APNs and the other members of the health care team is paramount for the delivery of high-quality care. One such work environment is the intraprofessional nursing environment in which APNs and RNs work cooperatively. To date, few researchers have examined the APN–clinical nurse relationship (Skalla & Caron, 2008). However, Naylor et al. (2013) have reported that nurse-led interdisciplinary interventions can produce cost savings and quality improvement.

Collaboration in interprofessional teamwork. Among the key competencies that the IOM (2003) advocates for health care improvement, interdisciplinary teamwork and patient-centered care lead the list. Teamwork and other forms of clinical collaboration entail communication, shared decision-making, and collective action toward a common goal. For a health care team that, as a partnership, includes both the patient and providers, collaboration requires sharing of information and decision making responsibilities regarding the patient's health issues (Henneman, Lee, & Cohen, 1995). A major component of health care team collaboration is interprofessional collaboration (i.e., collaboration among care providers who represent a variety of professional occupations). Interprofessional collaboration is by nature interdisciplinary, given that interprofessional teams are composed of specialists who, collectively, are knowledgeable about multiple health care disciplines and competent in a range of clinical skills. In collaboration, the providers' interdisciplinary expertise is directed toward achievement of the team's

common goal of optimal patient care. To achieve this goal, team members must communicate and work together as colleagues. This collaboration requires responsibility, accountability, coordination, communication, cooperation, assertiveness, autonomy, and trust (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011).

Collaboration in intraprofessional teamwork. In addition to participating in *interprofessional* teams, most hospital care providers also participate in *intraprofessional* teams (i.e., teams comprising individuals from the same profession). Intraprofessional teams may be established by formal assignment or may function informally as a byproduct of collegiality and mutual desire for information sharing. In the context of the project described in this paper, APNs and staff nurses at the hospital site constitute an intraprofessional nursing team in which the APNs and the nurses perform different but complementary roles in patient care. As with interprofessional teams, intraprofessional teams must also collaborate effectively. Intraprofessional collaboration is a team-based approach to care and a proven strategy that can improve patient care, meet the demands of the health care system, and improve patients' perceived satisfaction (Robinson, Gorman, Slimmer & Yudkowsky, 2010). For APNs and RNs, this cooperative effort includes sharing responsibility for problem solving and decision-making regarding plans of care.

Benefits of effective collaboration. In the contemporary health care environment, communication is the cornerstone of clinical decision-making (Aston, Shi, Bullot, Galway, & Crisp, 2005). The communication that occurs in the context of collaboration can help to optimize all aspects of care (Robinson, Gorman, Slimmer & Yudkowsky, 2010). For example, as Baggs, Ryan, Phelps, Richeson, and Johnson (1992) have

observed, improved communication and collaboration result in more positive patient outcomes, higher satisfaction, and lower readmission rates. Good collaboration practices confer benefits for staff as well; for example, effective communication has been directly linked to greater job satisfaction and higher nurse retention (Blegen, 1993; Manojlovich, 2005). In some instances, the benefits of improved clinical communication are mutually reinforcing for both clinicians and patients. Thus, Chapman (2009) has reported that implementation of physician–nurse intentional bedside rounding at a New Hampshire hospital led to increases of both staff satisfaction and patient satisfaction. The patients reported that the combined presence of both physician and nurse at the bedside was unique in their (the patients') hospital experience—and that this joint physician–nurse rounding provided the best hospital rounding experience that they as patients had ever had (Chapman, 2009). Improved collaboration ultimately improves engagement with other health care personnel, mutual respect, understanding, and the caregiver relationship as a whole (Flicek, 2012; Wade, 2014).

Consequences of inadequate collaboration. Conversely, inadequate or deficient interprofessional collaboration often detrimentally affects the quality of patient care (Curtis, Tzannes, & Rudge, 2011). For instance, ineffective communication can disrupt care continuity and lead to inappropriate treatment. As a result, poor communication places patients at greater risk for medical errors and adverse events (Sutcliff et al., 2004). Indeed, miscommunication is the leading cause of preventable injuries, increased length of stay, and death (Dayton & Henriksen, 2007; McComb et al., 2012). Moreover, surveys of patients after acute inpatient stays have found deficiency when communication is lacking among staff members (Athwal, Fields, & Wagnell, 2009; Radtke, 2013). Thus a

lack communication within a health care team can negatively affect patients' perception of their hospital stay (Cowan, Shapiro, Hays, & Afifi, 2006). Ultimately, a health care team's deficient communication can also adversely affect the health care organization's bottom line (Cowan, et al., 2006). Dissatisfied patients may opt to seek future health services elsewhere and may voice their dissatisfaction to family and friends. Such negative word-of-mouth public utterances can erode income for a hospital, particularly in urban areas where people have more hospital choices. Finally, Rosenstein (2002) contends that deficient communication among team members also adversely affects providers themselves—resulting, for example, in increased caregiver dissatisfaction and turnover. (In a related finding, Rosenstein has also observed that nurses' job satisfaction is itself related to workplace stress, nurses' morale, and commitment to the organization.) Not surprisingly, one of the strongest predictors of nurse job satisfaction is the quality of the nurse–physician relationship (Baggs & Ryan, 1990), which occurs most directly in the context of their interprofessional collaboration.

　　　　Inadequate collaboration in U.S. hospitals. Despite mounting evidence that communication and collaboration among all members of the health care team improve patient care, in most U.S. hospitals, effective communication in professional collaboration is the exception, not the rule (Bender et al., 2013). For example, many hospitals continue to conduct independent physician–nurse practitioner patient rounds separately from staff nursing rounds (Gonzalo, Wopaw, Lehman & Chuang, 2014; Weaver, Callaghan, Cooper, Brandman & O'Leary, 2014). The lack of formal inter- and intraprofessional collaboration results in the fragmented care that characterizes today's health care system (Bender, Connelly, & Brown, 2013).

Patient-centered care. Historically, health care providers viewed their patients as passive bystanders in their health recovery process—rather than as active participants and essential contributors (Funnell, 2000). This clinical view of patients manifested in a variety of ways. For example, patients' engagement in treatment, such as their use of medication, was viewed in terms of "compliance" rather than "adherence." The tone of clinical conversations was authoritarian and provider directed, rather than inclusive and patient centered. During patient rounds, clinicians did not seek patients' opinions, and patients had relatively little input in decision-making regarding their care (Rimmerman, 2013). However, during the past two decades, providers have increasingly encouraged patients to be more active in their (the patients') treatment and to assume a more central role in their own care. This shift in providers' perception of the central importance of the patient was formalized in 2003, when the IOM issued a recommendation that health care should be patient centered. Clearly, this directive will continue to inform patient care for the foreseeable future.

A patient-centered approach to care confers multiple benefits. For example, providing patients with immediate access to their personal care information promotes patients' ease of mind, accelerates their recovery, and increases their satisfaction with care (Anderson & Mangino, 2006). Patients differ from one another in their attitudes regarding personal involvement in their care. For most patients, a patient-centered approach (a) helps the patient to feel valued and respected, (b) promotes the development of trust between the patient and the patient's health care providers, and (c) augments providers' ability to communicate important information to the patient (Ferguson, Ward, Card, Sheppard, & McMurtry, 2013). Today, most providers concur that the goal and

benefit of patient-centered care is to optimize outcomes through encouraging active patient participation in their own health recovery and maintenance (Craig, 2010).

Fundamentally, the concept of patient-centered care connotes respect and dignity, information sharing, participation, and collaboration among all health care team members, including the patient (Griffin, 2010). Indeed, interprofessional collaboration itself cannot succeed absent consideration of the patient. Accordingly, inclusion of the patient as a vocal, engaged partner in clinical interactions—such as patient rounding—is imperative.

The role of the APN in patient-centered care. Among the roles of the various providers on the health care team, the APN's role is predominant in both scope of practice and time spent with patients (Niemine, Mannevaara, & Fagerstrom, 2011). For example, in the acute-care setting, APNs are responsible for case management, facilitation of communication and collaboration with physicians and nurses, medication management, and discharge planning with post-discharge follow-up. The nature and scope of the APN's responsibilities uniquely position APNs to assist and guide patients in self-care and to be self-sufficient and independent as appropriate during and following all types and stages of health recovery.

Bedside rounding. One solution for improving health care team effectiveness pertains to bedside rounding. Bedside rounding, normally conducted daily by physicians, presents an opportunity for care team members to cooperatively develop and communicate care strategies, plans, and goals to patients and their families. However, in many hospitals, staff nurses—who spend more time with the patient than do any other health care worker—are left out of these physician-led patient rounds. This exclusion is

unfortunate because, in addition to providing nursing expertise and critical knowledge about patients' health status, staff nurses' familiarity with patients uniquely positions nurses to facilitate and encourage patients' proactive participation in their own health care team. Thus, for optimal patient care and safety, inclusion of staff nurses in patient rounds—that is, structuring rounds to be truly interprofessional—would be invaluable and could potentially lead to several positive outcomes. For example, in a study that compared interprofessional rounding with traditional rounding, patients seen in interprofessional rounds had shorter mean lengths of hospital stay than did patients seen in traditional rounds (5.5 vs. 6.1 days, respectively; $p = .006$) and lower mean total charges ($6,681 vs. $8,090, respectively; $p = .002$; Begue et al., 2012; see also Cardarelli, Vaidya, Conway, Jarin, & Xiao, 2009; Curley, McEachem, & Speroff, 1999; O'Leary et. al, 2012; Wild, Nawaz, Chan, & Katz, 2004). In addition, given the association between patient–provider communication and patient satisfaction with care (Berry, 2009), interprofessional rounding could also potentially result in increased patient satisfaction.

Optimal intraprofessional rounding—which would include APN and staff nurses at the patient's bedside—would have the objectives of accurate, concise clinical communication and effective coordination and organization of patient care for the day. The evident cooperation between nurse providers in this intraprofessional rounding format would reflect a visible, concerted team effort to achieve patients' goals. This manifest collaboration could favorably influence all stakeholders—patients and their families, providers, and the hospital as a whole.

Note: The training module also advocates use of a daily goal reminder sheet. The use of daily goal reminder sheets during bedside rounding has been found to improve

health care team communication and patient care (Agarwal et al., 2008; Forde-Johnson, 2014; Holzmueller et al., 2009).

Problem Statement

The hospital that serves as the site of this DNP project, the Chicago Medical Center (CMC), is an urban, university-based teaching center with 32 nursing units and 920 inpatient hospital beds. This hospital is a designated Magnet Center of Excellence. (A Magnet hospital is a health care facility that is identified by the American Nurses Credentialing Center as meeting established criteria for classification as a center of excellence [TJC, 2014].) In 2014, CMC was approaching its 2-year review for Magnet status renewal. In the review, the Magnet patient engagement/patient-centered care metrics pertain to whether staff includes the patient in the decision-making processes. Questions in the Magnet patient satisfaction assessment instrument refer to the patient's perception of nursing care, staff accessibility to the patient, individualized tailoring of patient care, and staff effort to keep the patient informed. Notably, in the Magnet assessment's patient engagement/patient-centered care metrics, the hospital has performed poorly in the last two years. Ineffective communication and collaboration between APNs, RNs, and patients result in increased potential for distortion or loss of information, failure to communicate important nuances of meaning and affect, and other forms of miscommunication. All of these types of communication failure— including prevalent deficiencies in APN–staff nurse communication—can lead to fragmented, suboptimal patient care.

CMC interprofessional collaboration performance. From my observations and from studies conducted at the hospital, it appears that the hospital's weak interprofessional collaboration and diminished patient satisfaction ratings have resulted

from deficient communication—and specifically, from a lack of interprofessional bedside rounding. The studies, conducted by the hospital's Director of Hospital Medicine, Kevin O'Leary, MD, have focused on interprofessional communication between Hospitalist and nurses. On a positive note, the studies also found that interprofessional rounding improved collaboration and teamwork and reduced adverse events. Thus, in one study, O'Leary (2012) investigated the use of structured interprofessional rounds (SIDRs)—table rounds that included the nurse clinical coordinator, a service representative (MD or NP), a pharmacist, a social worker, and, on some units, a physical therapist. O'Leary found that, following implementation of SIDRs, both staff and patients rated the quality of collaboration and teamwork as being significantly higher than the quality of collaboration and teamwork prior to SIDR implementation; in addition, following SIDR implementation, the rate of adverse events declined.

While O'Leary's findings of improved interprofessional collaboration are encouraging, the SIDRs in his study did not include the patient or staff nurse. Given the previously discussed potential benefits of including nurses in patient rounding, it is likely that that including the staff nurse and patient in the rounds would have achieved an even greater improvement in communication.

Role of the APN at CMC. O'Leary's (2010) research revealed that at CMC, collaboration and communication are suboptimal. At the hospital, professionals from a diverse range of backgrounds works toward the same goals, but they often do so in relative isolation—rather than in effective collaboration. The integration of APNs into the staff substantially improved communication and patient care, and as a result, CMC today employs approximately 200 APNs. As hospital employees, the APNs are permanently

assigned to a specific service, such as surgical, anesthesia, radiology, internal medicine, or hospitalist services. Once assigned to a service, the APNs work is overseen by both a nursing administrator and service-attending physicians. Attending physicians have primary responsibility for all care and treatment; they have completed a residency and are board certified in their area of expertise. All attending physicians at the hospital have a specific specialty and have "services" that comprise interns, resident physicians, fellow physicians, physician assistants, and APNs; these service members work as a team to care for patients. Collaborative agreements are established with the service-attending physician. Surgical resident physicians or fellows are ordinarily either assigned to the operating rooms or to a clinic, or fulfill consulting service requests. Throughout the day, surgical service APNs communicate with their respective attending physicians, who may or may not be present or round on the inpatient nursing units. Day-to-day management decisions are made and implemented by the APN with surgical residents responsible for overnight and weekend coverage of patient care.

 Skills to improve interprofessional collaboration. Skills to improve interprofessional collaboration can be developed through training and education and are important for achieving high quality care (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011). The DNP project's training module was designed to improve staff skills pertaining to communication, collaboration, and satisfaction. This improvement will occur in the context of an APN–RN–patient bedside rounding format that will be new at the intervention site but whose effectiveness has been substantiated at other hospitals. Specifically, the project entails development of the learning module to teach

APN and RN staff how to effectively communicate in an intraprofessional environment in which the patient participates as a partner.

Objective

The primary objective of this project was to develop a structured learning module to improve collaboration and communication between APNs and RNs through the implementation of APN–RN patient bedside rounding. Additional plans for broadened implementation will be considered in the future. Learning module topics include (a) the requirement for close communication and collaboration between team members to assure seamless, high-quality health care, (b) the definition of APN–RN rounds, (c) the schedule and length of rounds, (d) the personnel composition of rounding teams, (e) elements of discussion during the rounds, and (f) the use of a daily goal reminder sheet to ensure consistency of all elements of the patient's treatment plan and goals.

An in-depth literature review was used as a basis for creating the written learning module. After the module was been developed, it was sent for review and feedback to three APNs in the hospital who had prior experience in working with APN–RN rounds at other facilities. In addition, an evaluation form was developed for use in assessing the effectiveness of the learning module. APNs and RNs who participate in the learning module will complete the evaluation form following their completion of the learning module.

Primary Objective

The primary objective of this project was to develop a structured learning module to improve collaboration and communication between APNs and RNs through the implementation of APN–RN patient bedside rounding.

Chapter 2

Review of the Literature

In the body of research on clinical communication and collaboration, the large majority of studies have focused on the *staff nurse*–physician relationship (Baggs & Ryan, 1990; Chapman, 2009; Dechairo-Marino et al., 2001; Nathanson et al., 2011; Shortal et al., 1991). The few studies that have examined the *nurse practitioner*–physician relationship have found that physicians have had a mixed reaction to the introduction of nurse practitioners into health care teams (Donelan, DesRoches, Dittus, and Buerhas, 2013; Martin, O'Brien, Heyworth & Meyer, 2005). Moreover, to date, only a handful of studies have examined the collaboration and communication between staff nurses and advanced practice nurses (APNs). The absence of research on APN collaboration and communication with the other members of the health care team has clinical implications. Since the inception of advanced practice nursing, the role of APNs has continued to evolve and grow in importance—and the impact of this development has clearly resulted in a shifting of practice boundaries between professional groups (DiCenso, 2010; Searle, 2008). Researchers have reported that the process of shifting practice boundaries between professional groups affects how new roles are integrated into the health care team (Kilpatrick, Lavoie-Tremblay, Lamothe, Richie, & Doran, 2012). In this regard, the advent of advanced practice nursing has undoubtedly affected the health care team's collaborative dynamics. Given the importance of the team's dynamics in the provision of care, the paucity of research on the APN–staff nurse and APN–physician relationships is a deficit that must be rectified—especially in light of APNs' recent advances into what was traditionally the physician's decision-making role.

Literature Review: Purpose and Search Strategy

At the inception of the DNP project, a literature review was conducted for the purpose of informing the project's design. The literature for the review was obtained by searching the CINAHL, Medline, PubMed, Cochrane Library, Web of Science, and Google Scholar databases using the search terms such as collaboration, communication, interprofessional, intraprofessional, team, physician-ANP collaboration and communication, nursing and APN collaboration.

For the sake of clarity in the following discussion, the review begins with definitions of terms.

Definitions of Terms

The terms used in this literature review fall into two categories: terms pertinent to *rounding* and terms pertinent to *interprofessional* and *interdisciplinary* dynamics.

Terms pertinent to "rounding.**"** In clinical usage, the term *rounds* (also *rounding*) refer to informal or formal meetings in which providers discuss health care matters of mutual interest (Anderson, Malone, Shanahan, & Manning, 2014). Many types of rounds are conducted in U.S. hospitals; rounds vary in type according to purpose, participant composition, and format. Regarding purpose, rounds are conducted in the context of patient care, or to provide professional learning, or for a combination of patient care and professional learning purposes. Regarding participant composition, rounds may be conducted by individual clinicians or by groups of clinicians. In group rounding, participants may share the same specialty or disciplinary background, or may represent diverse specialties and backgrounds. In the broadest use, rounds can include patients and

their families, as well as providers. Regarding format, rounds may be conducted periodically or as a single event; rounds may be restricted to a particular department or nursing unit, or, in the case of grand rounds, may be open to the hospital's entire clinical staff. Most types of rounding involve visits to patients' bedside, but some types of rounds are held in conference rooms or at nursing stations. Among the types of rounds conducted in hospital settings, *patient handoff rounds, resident rounds,* and *structured table rounds* (STR) are perhaps most common.

   ***Bedside rounds*.** Many different types and styles of bedside rounds are conducted on a daily basis in hospitals across the country. The general purpose of bedside rounds is to accurately communicate and coordinate strategies of patient care. During bedside rounds, clinicians review patients' charts (including any test or laboratory results). Rounding discussion topics typically include diagnosis, prognosis, and possible future intervention.

   Patient handoff rounds and reporting. Another type of rounding, the *patient handoff*, involves what Cohen and Hilligoss have described as "the exchange between health professionals of information about a patient accompanying either a transfer of control over or, of responsibility for the patient" (2010, p. 494). More recently, Anderson, Malone, Shanahan, and Manning have defined patient handoff as the "transferring of responsibility and accountability for some or all aspects of patient care from one person or group to another" (2014, p. 2) However, beyond these general descriptions, the literature provides little consensus as to what specifically constitutes a handoff. Moreover, in medical and nursing care, handoff procedures have not been standardized (Cohen & Hilligoss, 2010). (Note: In clinical practice and in the literature,

the terms *handoff* and *handover* are used interchangeably; this paper will use the term, "patient handoff.")

Patient handoffs may occur between staff members in the same department or between staff members in different departments—in various contexts and for various purposes. Two related terms, *change-of-shift handoff* and *nursing report handoff,* synonymously refer to transfers of responsibility between staff members employed in different hospital shifts. Change-of-shift handoff reports, conducted by the nursing staff, may take place at the nurses' station or at the patient's bedside. This type of handoff report, which entails the transfer of information about the patient's current status and care plan also updates nurses on current objectives (Patterson et al., 2004).

Miscommunication in handoff communication. Among the various types of patient handoff, change-of-shift handoffs, especially those that rely primarily on verbal communication, are most problematic (Gregory, Tan, & Tilrico, 2014). One drawback of largely verbal handoffs is that they can be lengthy and can include nonessential information. More important, primarily verbal change-of-shift handoffs are particularly prone to communication failure. Thus, a study by Bhabra, Mackeith, Monteiro, and Pothier (2007) compared the clinical use of several forms of handoff communication (e.g., verbal, note taking, printed handout) with regard to retention of patient information. The investigators reported that after five handoff cycles, use of a verbal-only handoff method resulted in retention of only 2.5% of patient information. In contrast, handoffs that used both verbal and note-taking communication resulted in retention of 85.5% of patient information. Remarkably, handoffs in which patient information was transmitted via use of a printed handout resulted in retention of up to 99% of patient information.

Clearly, primarily verbal handoff reporting carries an unacceptably high risk of inaccurate or incomplete transfers of information; these deficiencies can lead to inappropriate decision-making, errors or omissions in care, or mismatches between patient needs and services rendered (McMurray, Chaboyer, Wallis, & Fetherston, 2010). Moreover, primarily verbal handoffs are likely to elevate risk of adverse events (Gregory, Tan, & Tilrico, 2014).

Since 2006, when the Joint Commission (TJC) issued recommendations regarding use of a structured format for verbally communicating information, clinical use of structured verbal communication has increased. Further research and development of standardized change-of-shift policies and procedures—including, for example, provision of opportunities for nurses to ask and respond to questions—could contribute to increased patient safety (Klee, Latta, Davis-Kirsch, & Pecchia, 2012).

Change-of-shift handoffs entail more than historical recounting of events. During handoffs, nurses' exploration of care alternatives and discussion of potential future complications are vitally important (Priestly, 2006). In these components of the handoff process, experienced staff nurse and APNs use critical thinking skills to predict outcomes and make clinical decisions that will ideally result in provision of optimal patient care.

Handoff standardization and the use of the SBAR process. In a given organization, the standardization of handoff procedures entails the development and application of methods to be used consistently by all nurses. One such standardized method is the Situation–Background–Assessment–Recommendation (SBAR) communication process. SBAR is a clear, concise communication format that enables clinicians from different disciplines to exchange vital information in a way that satisfies

diverse communication styles and needs (Flicek, 2012). In change-of-shift handoffs,

SBAR enables departing shift nurses to provide brief, objective summaries of pertinent

aspects of the patients' current status. SBAR promotes quality of care and patient safety

through communication based on a defined set of expectations

 Resident rounds. In many teaching hospitals, residents conduct early rounds each

morning. During these resident rounds, individual service residents check on each of

their patients. These early-morning rounds, which include wound checks and vital sign

measurements, are not considered teaching rounds; rather, their purpose is simply to

check on patients' status and to detect changes that may have occurred overnight.

Surgical residents typically round between 5:00 a.m. and 7:00 a.m. (before the residents

go to the operating room); medical residents typically round after 7:00 a.m. The resident

team's size and consistency is determined by the resident's service.

 Interdisciplinary rounds. Most intensive care units (ICUs) conduct

"interdisciplinary" rounds whose participants include attending physicians, residents,

medical students, nurses, pharmacist, and social workers. Interdisciplinary rounds are

held either at bedside or outside the patient's room.

 Structured table rounds. On nursing units, structured table rounds (STRs; also

known as structured interdisciplinary rounds [SIDRs]) provide a structured format for

team members from multiple clinical disciplines to discuss patient care and improve

collaboration. At Chicago Medical Center (CMC) in Chicago, Illinois, for example, STR

participants include a charge nurse, pharmacist, social worker, and service representative

(resident physician or APN). Research has reported that implementation of STRs on

medical units resulted in increased patient ratings, improved collaboration and teamwork,

and reduction in the rate of adverse events; however, STRs did not consistently decrease length of stay (O'Leary et al., 2012; Weaver et al., 2014).

Each of these common types of rounds—change-of-shift handoff, resident round, and STR—is an important process of information gathering and exchange that communicates patient's status to particular caregivers. All types of rounding have demonstrated a degree of success in enhancing communication and collaboration. The addition of APN–RN–patient rounding to the clinical armamentarium is likely to further augment communication and collaboration among three key players: the APN, the RN, and the patient.

APN–RN–patient bedside rounding. None of the current rounding styles includes the patient in the discussion of patient planning and care. As research has shown, inclusion of the patient's voice in the planning and execution of care is important (Lu, Kerr, & McKinlay, 2014). In the hospital proposed for the DNP project, none of the current rounding, APN–RN–patient bedside rounding will not only facilitate patient participation in the health care team, but will also help to augment the integration and coordination of nursing care and medical care by bridging the communication and collaboration gap between these two components of care.

Terms pertinent to "interprofessional" and/or "interdisciplinary" dynamics. Five terms—"transdisciplinary," "multidisciplinary," "interdisciplinary," "interprofessional," and "intraprofessional"—are often used in conversations about health care team dynamics. The terms transdisciplinary, multidisciplinary, interdisciplinary, and interprofessional are often used interchangeably, but these terms have distinctly different meanings (Choi & Pak, 2006; Mu & Royeen, 2009). An understanding of the semantic

distinctions between "transdisciplinary," "multidisciplinary," and "interdisciplinary" and the semantic distinctions between "interprofessional" and "intraprofessional" helps to clarify our understanding of health care team dynamics in general.

Merriam-Webster's Collegiate Dictionary (11th ed.) defines *trans* as "across" or "beyond" (p. 1327), *multi* as "many" or "multiple" (p. 815), and *inter* as "between" or "among" (2014, p. 651). The meanings of these prefixes modify the meanings of the words formed by attachment of the prefixes to base words. The *Dictionary* defines the base word *discipline* as a "field of study" ("discipline," 2014, p. 356). The base word *profession* refers to a collective body of people with a specialized knowledge; an individual's qualification as a "professional" typically requires long and intensive preparation.

Transdisciplinary. The term *transdisciplinary practice* refers to practice in which groups whose members represent different disciplines and use a shared conceptual framework and common theories, concepts, and approaches (Deady, 2012).

Multidisciplinary. Angelini (2011) defines *multidisciplinary* as "disciplines working alongside or parallel in a silo format without much interaction." (p.176) A multidisciplinary team is a group composed of members with varied but complementary experience, qualifications, and skills; these members work cooperatively for the achievement of a common objective. Multidisciplinary practice concentrates on the individual tasks related to each discipline. In a hospital environment, this multidisciplinary approach involves a collaborative process in which members of different disciplines assess or treat patients independently and then share the information

with each other (Deady, 2012; Sorrells-Jones, 1997). Members of separate disciplines view the patient from their own perspective (Jessup, 2007).

　　　　Interdisciplinary. In contrast to multidisciplinary practice, interdisciplinary practice concentrates on collective action and process orientation (Sorrells-Jones, 1997). "Multidisciplinary practice" refers to disciplines working alongside or parallel to each other in a silo format with minimal interaction (Davies, 2000).   The term "interdisciplinary collaboration" describes a level of collaboration that is deeper than that which ordinarily occurs in multidisciplinary collaboration. In interdisciplinary collaboration, representatives of different disciplines pool their knowledge in an interdependent manner (Deady, 2012). The development of interdisciplinary practice arose as an attempt to prevent or rectify the untoward consequences that result from use of a fragmented approach to health care, in which knowledge and approaches from numerous disciplines are cobbled together and modified in an ad hoc attempt to solve some existing problem. In contrast to multidisciplinary practice, interdisciplinary practice entails integration of disciplinary approaches in a single consultation (D'Amour & Oandasan, 2005; Jessup, 2007).

　　　　Interprofessional. In health care, interprofessional collaboration refers to situations in which health care professionals come together as a cohesive team with a common purpose, commitment, and mutual respect. The IOM (2003) describes interprofessional teams as groups composed of members from different professions and occupations with varied specialized knowledge and skills who communicate and work together as colleagues to provide quality, individualized care to patients (p. 79). Interprofessional collaboration is collaboration among health care professionals—

excluding patients. In patient-centered practice, the broader term, "health team collaboration" includes patients (Bridges et al., 2011). In this type of collaboration, group members collectively address patient care issues and engage in joint decision making that enables transformation of occur (Angelini, 2011). No person in this team is more important than another.

Future development of efficient health care depends on interprofessional cooperation between various health professionals and patients (Bridges et al., 2011). The need to develop collaborative partnerships within the community or hospital is increasing as new health care needs and issues continuously emerge. Nurses are recognized as an important part of this partnership (Daiski, 2004). To be successful, a collaborative partnership must excel in networking, leadership, and promoting a vision of the future (Boswell & Cannon, 2005). In the DNP project, the interprofessional collaboration partnership included the APN, staff nurse, and patient—who participated in a collaborative, coordinated approach to share decision-making about health care issues.

Intraprofessional. In contrast with interprofessional teams, intraprofessional teams are composed of individuals from a single profession. On the intraprofessional team in this DNP project, the APNs and staff nurses were from the same profession but had different roles in patient care.

Literature Review Discussion

The following discussion considers topics of central importance to the DNP project: communication, collaboration, patient-centered care, patient satisfaction and quality of care, evidence-based practice, and the use of the goals reminder sheet.

Communication. Communication has been described as a process of transmitting or conveying thoughts, opinions, or information (Baggs & Schmitt, 1988). As a process of reciprocal exchange between colleges, communication occurs in multiple modes and media, including but not limited to written discourse, oral speech, body language, and electronic transmission. A number of factors, such as syntax, linguistic register, or tone of voice, can color human discourse with semantic nuance.

Benefits of good clinical communication. It is axiomatic that good communication augments and enhances interpersonal relationships. Effective communication is indispensable for successful interprofessional teamwork in health care contexts. For instance, good nurse–physician communication has been positively associated with improved patient outcomes (Mills, Neily, & Dunn, 2008). In addition, a substantial body of research has reported positive relationships between physicians' use of patient-centered communication styles and positive patient care outcomes (Ruiz-Moral et al., 2006; Schmid & Mast, 2007; Trummer et al., 2006). Effective patient–physician communication has also been shown to be key in improving patient satisfaction (Morris et al., 2013). Not surprisingly, research on patient–nurse communication underscores the importance of communication in nursing—for example, for developing positive patient–nurse relationships, an essential component of high-quality nursing care (Berry, 2009; Haumueller, 1994; McCabe, 2004). Notably, Berry (2009) has reported that nurse practitioners spend more than two thirds of their clinical patient encounter time in communication. In the patient–NP relationship, a patient-centered communication style has a positive effect (Berry, 2009).

Adverse effects of poor clinical communication. Despite research evidence substantiating the importance of good clinical communication, clinical practice is not always characterized by effective communication behaviors. As Bender et al. (2013) have observed, in a typical hospital environment, effective communication in interprofessional collaboration is the exception, not the rule. Moreover, deficient clinical communication has multiple well-substantiated consequences—for example, in elevating patients' risk for medical errors and adverse events (Sutcliff et al., 2004). Indeed, poor communication is the leading cause of preventable injuries, increased length of stay, and death (Dayton & Henriksen, 2007; McComb et al., 2012; see also Sutcliff et al., 2004). In a study conducted by TJC, deficient communication was identified as the root cause of more than 60% of 2,034 surveyed errors, and 75% of these errors resulted in a patient's death (Fernandez, Tran, Johnson, & Jones, 2010).

Researchers have examined a number of factors—e.g., clinical location, interprofessional dynamics, and health care approach—in studying adverse effects of poor communication on health care. *Clinical location*-related research has reported that, in acute care settings, poor communication and teamwork failures were the basis of most reported sentinel events (Sehgal & Auerbach, 2011; TJC, 2011). In ICUs, failures of communication and coordination were associated with a higher mortality rate and longer length of stay (Gruenberg et al., 2006). In the Malpractice Insurers Medical Error Prevention Study, which examined 444 claims from four insurers and 46 hospitals, 24% (60) of error-related surgical patient injury claims ($N = 250$) were directly due to communication breakdown (Greenberg et al., 2007). *Interprofessional dynamics*-related research has reported that communfication failures among hospital clinicians, physicians,

NPs, and nursing staff were associated with higher mortality rates, longer lengths of stay, and higher nurse turnover (Mills et al., 2008). A study by Sutcliffe (2004) has reported that health care team communication failures were the most common cause of preventable disability or death. *Health care approach*-related research has reported that patient–provider communication that was not patient-centered inhibited development of a positive patient–nurse relationship (Langewitz et al., 1998; McCabe, 2004).

 Barriers to effective clinical communication. Resolution and prevention of communication problems often begin with recognition of the possibility of a barrier (O'Daniel & Rosenthstein, 2008). According to Dayton and Henriksen (2007), common barriers to interprofessional communication include (a) personal values and expectations; (b) perception of hierarchy; (c) disruptive behavior; (d) culture or ethnicity; (e) generational differences; (f) gender; (g) historical interprofessional rivalries (inequities in power) or hierarchy; (h) differences in language or jargon; (i) varying levels of preparation, qualifications, or status (different professional philosophies and/or priorities); (j) differences in requirements, regulations, or norms of professional education (variations across professional culture and role expectations); (k) concerns regarding clinical responsibility; (l) complexity of care; (m) fears of professional liability; and (n) emphasis on rapid decision-making. (p. 34; see also O'Daniel & Rosenstein, 2008)

 Failure of any communications among hospital clinicians, physician, NP, and nursing staff has been associated with higher mortality rates, longer lengths of stay, and higher nurse turnover (Mills et al., 2008). Sutcliffe (2004) found that health care team communication failures are the most common cause of preventable disability or death. The IOM (2003) concluded, that health care organizations need to promote effective team

functioning, which is associated with an improvement in patient safety. The Malpractice Insurers Medical Error Prevention Study (MIMEPS) looked at 444 claims from four insurers and 46 hospitals and found 250 claims involving an error in a surgical patient injury, with 60 of these cases directly due to communication breakdown (Greenberg et al., 2007). Failures of coordination and communication are associated with higher mortality rate in intensive care units and longer length of stay. Improved communication and collaboration between nurses and physicians were positively associated with improvement of patient outcomes (Mills, Neily, & Dunn, 2008).

  Collaboration. Collaboration is a complex process that requires intentional knowledge sharing and joint responsibility for patient care. In a collaboration, two or more individuals, often from different professional disciplines, work interdependently and dynamically to achieve shared goals and objectives. Collaboration requires a shared power base of knowledge, and a lack of hierarchy within the team. Attributes of collaboration include open communication, cooperation, assertiveness, negotiation, and coordination. Collaboration is a joint venture or cooperative endeavor, with willing participation, shared planning, and a team approach to decision-making. (Fewster-Thuente & Velsor-Friedrich, 2008). Ideally, this dynamic process fosters best patient care by optimizing the use of each individual's knowledge and skills. Teams that work effectively can actuate participants' diverse potentials and thereby realize greater adaptability, productivity, and creativity than is available in any single individual (Salas, Sims, & Burke, 2005). Nurses have reported feelings of increased collaboration with physicians when they sense that their input is valued (Chapman, 2009). In productive collaborations, team members are able to employ positive attitudes, knowledge, and skills

to achieve objectives. Sustaining effective teamwork requires thoughtful application of these characteristics (Kaissi, Johnson, & Kirschbaum, 2003). Commonly identified characteristics of collaboration include collegiality, teamwork, open effective communication, recognition of other member's expertise, trust and respect (Crecelius et. al., 2011).

In health care, collaboration occurs in many contexts. In this DNP project, the focus of collaboration improvement was the health care team as a whole—which, according to the patient-centered model, comprises the patient, the APN, and the staff nurse. It is important to identify in this DNP project that the intraprofessional, collaborative team is being defined as the APN and staff nurse versus the more traditional physician-nurse. An APN–physician team complement each other with their unique skill sets. Ideally, for optimal patient care, APN–nurse team interpersonal dynamics should be characterized by mutual respect for all participants' knowledge, skill, and contributions.

The American Nursing Association defines collaboration in nursing in term of partnership with mutual valuing; recognition of separate and combined spheres of responsibility; mutual safeguarding of the legitimate interests of each party; and a recognized shared goal (Gardner, 2005).

Communication and cooperation between medical staff, and in particular, between physicians and nurses, have been studied for decades. In 1967, Leonard Stein, MD wrote one of the most poignant and influential articles on this topic. He asserted that nursing and medicine are among the few professions in which the degree of mutual respect and cooperation between co-workers is intense. According to Stein, members of the two professions must be highly sensitive to the other's nonverbal and cryptic verbal

communications. Stein referred to their interactions as the "doctor–nurse game." He believed that the physician "traditionally and appropriately" had total responsibility for making decisions regarding the management of patients (p. 699). In Stein's view, the doctor–nurse game's cardinal rule was for the nurse to communicate her or his recommendations without "appearing to make recommendations" (Stein, 1967, p. 699). Forty years later, Wolf describes the same doctor–nurse game as "conflict avoidance" (2006, p.18). According to Wolf, maladaptive communication behaviors associated with MD–RN conflict avoidance result in delayed care and poor decisions, and, most important, diminished patient safety (Wolf, 2006). Health care providers appear to have since evolved to a state of collaboration and mutual accountability for patient care. In many cases, team members who seldom interact as a unit are more likely to create and perpetuate conflict than are team members who interact frequently (Wolf, 2006).

A literature review of research on collaboration involving health care professionals would be incomplete without examining the seminal works of Dr. Elizabeth Henneman and Dr. Judith Baggs.

In 1995, Henneman described health care collaboration as a "joint communication and decision-making process that expresses the specific goals of satisfying the patient's wellness and illness needs while respecting the unique qualities and abilities of each professional" (p. 104). Henneman asserted that effective patient care required effective MD–RN collaboration, but at the same time, she cautioned that effective collaboration among health care professionals is an elusive goal. Following publication of her initial research in 1995, Henneman worked for the next two decades to study MD–RN

collaboration. She discovered that nurses and physicians differ in their reporting of collaboration levels in the work setting. Using a collaboration assessment survey with a five-point Likert scale, Henneman found that, in their assessments of MD–RN collaboration, critical care nurses' median collaboration scores (3.4) were significantly lower than those of physicians (4.6; $p < .01$; Henneman, Kleppel, & Hinchey, 2013). Most recently, Henneman has developed an observational checklist to evaluate the degree of collaboration occurring on a given patient care unit. Although this checklist has been found to be reliable and valid (Henneman et al., 2013), it was not chosen for this DNP project because of its observational design.

Much of Henneman's work has been based on research conducted by Baggs, and the best-known data collection comes primarily from correlation ICU studies initiated by Baggs. In an investigation published in 1995, the researcher found that nurses' reports of collaboration were significantly and positively associated with patient outcomes (Baggs, 1988, 1994). In the early 1990s, Baggs and Ryan began to look into collaboration among ICU nurses and physicians for its potential to improve outcomes. She noted that the level of stress ICU nurses reported was closely related to strained interdisciplinary relations (Baggs & Ryan, 1990). With the demand for critical care nurses increasing, it was important to identify factors affecting nurse retention; such factors included satisfaction and collaboration. At that time, "interdisciplinary collaboration" was just a concept. In 1994, Baggs developed an instrument called "the Collaboration and Satisfaction about Care Decisions" (CSACD) to use for evaluation of staff satisfaction of communication and collaboration that is still relevant today.

Advanced practice nurses. An advanced practice nurse (APN) is a registered nurse who has achieved an advanced level of education and training with a master's degree as a minimum level of qualification to practice. This training includes diagnosis and treatment of a range of common medical conditions and illnesses. In Illinois, an APN must have a collaborative agreement with a physician to practice. The role of the APN is similar to that of a physician. Like the physician, the APN performs duties of a primary health care provider and can offer medical care to patients of all ages. In CMC surgical units, APNs provide ongoing daily care to patients. All participating services in these units do have residents, but they are usually occupied in the operating room during the day. During business hours (i.e., Monday through Friday, 7:00 a.m.–5:00 p.m.), APNs are in charge of ongoing daily care, including medications, review and monitoring of laboratory and procedure test orders, and placement of admission, discharge, and evaluation orders. At night and during weekends, resident physicians cover these responsibilities.

Communication between physicians, nurses and APNs. Historically, medicine and nursing have taken two separate paths: medicine has been associated with authoritative and hierarchical in structure; nursing has had a more supportive or subservient role. This dynamic resulted in fragmentation and compartmentalization of patient care (Jansen, 2008). Physicians had professional autonomy and control over patients and dominance over other health care professions (Gair & Hartery, 2001). Through advancing education and growth, nursing has emerged as an equal partner in the health care team. In today's complex health care system, no one profession can fulfill all patient needs. The evidence-driven advent of patient-centered care has resulted in greater

professional flexibility in both physicians and nurses—in the context of interprofessional

dialogue that focuses on the patient (Reeves et al., 2013).

Although in recent decades the quality and effectiveness of MD–RN interaction

has improved, the potential and need for further improvement in interprofessional

collaboration are substantial. To assess this need, Weaver et al. (2014) recently examined

teamwork and collaboration between staff nurses, residents, hospitalists, and oncology

physicians in oncology units at a large urban hospital. The investigators found that

physicians rated the quality of their own collaboration "very high" with other physicians

and with nurses. Physician ranked nurses' collaboration with physicians as ranging from

87% to 100%. In stark contrast, however, nurses rated the quality of collaboration with

physicians poorly, from 35%–65%. Weaver et al. found that hierarchies persist and can

interfere with collaboration. Nurses believed that a negative attitude toward

communication as a significant obstacle to collaboration. A nurse may be reluctant to call

a physician if the nurse perceives that their relationship is not mutually supportive and

collaborative. On the other hand, physicians, having a positive perception of

collaboration, perceive difficulty contacting other providers as the main obstacle to

collaboration. Physicians who assume they have a good collaborative relationship with

nurses may not seek additional information because they (the physicians) are unaware of

potential or actual problems (Weaver et al., 2014).

Vazirani et al. (2005) surveyed registered nurses ($n = 123$), physicians ($n = 45$),

and a combined group of resident physicians and interns ($n = 111$) to determine whether

introduction of an APN role to the team was followed by changes in team communication

and collaboration. Physicians reported that, when an APN was part of the team, the level

of collaboration with nurses and APNs was significantly higher. Physicians also reported

that when an APN was part of the team, the team had fewer unnecessary delays and

better general communication. In the same study, the staff nurses reported significantly

better communication with APNs than with physicians (Vazirani et al., 2005). Kilpatrick

(2012) also found that communication and decision-making improve quality of care when

the participating APN is able to act within the full scope of the APN role. Among other

positive outcomes, this study reported that APN participation was associated with

decreases in length of patient stay and costs for patients treated on the intervention unit,

without an increase of readmission rates.

Vazirani's (2005) study employed surveys to assess the degree of communication

and collaboration over two units. Physicians were surveyed immediately after they

completed a given rotation, starting at the onset of the interventions. Nurses were

surveyed biannually. The statistical analysis took into account correlation of observations

due to repeated sampling (Vazirani et al., 2005). Limitations in this study included

physician and staff nurse confusion about the role of APNs. Prior to the study, no APNs

were employed in the hospital's internal medicine department. Chicago Medical Center

(CMC) employs approximately 200 APNs throughout all medical and surgical services,

thus role confusion is not a problem. The second limitation of this study pertained to

sample size. Physicians and nurses were not allowed to work on both the interventional

and control units; accordingly, the pool of physicians and pool of nurses available to

participate in the study was restricted. This can present problems with sample size but

also falsely promote familiarity and foster improved communications, skewing positive

results.

Although the quantity of studies is limited, it is clear that when an APN is an integral part of the interprofessional team, the quality of communication and collaboration increases. This DNP project specifies inclusion of the APN and staff nurse as members of the professional team. The patient, who is also an integral part of this team, is not a professional but is in fact the core leader of the health care team. In the decision-making process, the patient's understanding and input are invaluable

Communication and collaboration between APNs and staff nurses. The majority of studies of communication and collaboration in health care contexts focused on the nurse–physician relationship (Baggs & Ryan, 1990; Chapman, 2009; Dechairo-Marino et al., 2001; Nathanson et al., 2011; Shortal et al., 1991). There have been minimal formal studies looking at MD-APN and improved communication with staff and its effects on patient care (Cowan et al., 2006). In nursing intraprofessional teams, communication has been identified as the essential component of good team functioning (Dreaschlin et al., 1999; Jones, 2005; Richardson et al., 2010). APNs possess diverse knowledge that can facilitate understanding of collaborative practice to optimize patient care (Crecelius, 2011). The Agency for Healthcare Research and Quality (2014) found that when nurse practitioners are included in daily multidisciplinary rounds, the rounding team's communication and collaboration improve.

The increasing use of health care teams has made nursing practice more salient, in that nurses serve as a link between team members and patients. Effective communication between all team members is essential for successful teamwork and high-quality patient care (Apker et al., 2006). The advance nurse practitioner function as the central link of the health care team integrating other health care providers and patients. Good

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communication among staff and between staff and patients is the cornerstone of quality care.

Gooden and Jackson (2004) documented one of the earliest studies examining staff nurses' attitudes toward APNs. The investigators found that as APNs have come to manage an increasing number of patients, staff nurses have begun to view the APNs as leaders. Staff RNs consistently scored APNs higher than physicians in measures of communication, respect for staff opinion, quality of care, clinical expertise, and willingness to teach staff, patients, and patients' families.

Moore and Prentice (2013) reported a case study that analyzed the collaborative process between APNs and nurse in an outpatient oncology setting in Canada. The researchers discovered four basic themes to collaboration:

- Time that APNs spend together outside of work translates into collaboration at work.
- The basic skill of clinical knowledge and experience are essential ingredients for successful collaboration.
- Other factors that that contribute to the success of collaboration include sharing a similar philosophy of care and mutual trust, respect and esteem.
- Barriers to collaboration inevitably arise. Nurses are largely unaware of how collaboration should manifest in the practice and are not trained on principles of effective collaboration in practice.
- Nurses and APNs attitudes are changing toward collaboration, viewing collaboration as a means of achieving positive results.

Moore and Prentice (2013) found that intraprofessional collaboration (a) is complex, (b) is influenced by interpersonal and professional factors, and (c) does not occur spontaneously. Nurse must have a solid understanding of the concept of collaboration and how to apply it in the clinical setting.

Patient-centered care. Improvement of patient satisfaction and quality of care is directly due to the implementation of patient-centered care. Patient-centered care, the "new normal" in today's healthcare system, provides a mechanism for nurses to engage patients as active participates in their care. The Institute of Medicine (IOM, 2001, p. 6) defines *patient-centered care* as "healthcare that establishes a partnership among practitioner, patients and their families to ensure that decisions reflect patient s wants, needs and preferences" (see also Boykins, 2014; Sepucha & Ozanne, 2010). Optimal patient participation requires a dynamic interaction between partners (patient and staff) in terms of interpersonal interaction, therapeutic approach, focus on resources, resources, patient opportunities to participate in and influence health care team decision making, and patient education (Sahlsten et al., 2007). Including the patient in bedside reports or handoffs has been reported to improve teamwork, safety and efficiency (Wildner & Ferri, 2012). This bedside practice also entails the participation of patients as partners in their care, with the expectation that their participation will lead to improved care, better outcomes, improved adherence to treatment and medication regimen and greater satisfaction with care. Barriers to implementation of patient-centered care and bedside rounding include time and resource requirements; the potential for patients to feel confused, upset, or dehumanized as a result of hearing clinical explanations; and the potential for breach of patient confidentiality (McMurry et. al 2011). In addition, when

presenting sensitive or confidential information, some nurses may feel uncomfortable, or be inhibited by a lack experience—especially in the presence of patients' family members or relatives are present. O'Connell, Macdonald, and Kelly (2008) found that viewed handoffs as being too time consuming, and ineffective, or efficient. The investigators recommended that a handoff guideline or information template should be developed to promote and facilitate the reporting of objective relevant information.

Patient satisfaction and its effects on quality of care. As a subjective phenomenon, "patient satisfaction" is difficult to define. The self-reported determination of patient satisfaction is a personal evaluation of health care services and of the providers of that care (Ware et al., 1983); patients' attitudes and expectations regarding care greatly affect their sense of satisfaction. Because satisfaction ratings are relative, subjective, and not directly observable, attempting to meaningfully quantify patients' personal evaluation of care is highly problematic (Ware et al., 1983).

The challenges inherent in measuring patient satisfaction have ramifications for policy and practice. For example, in 2012, the Center for Medicare and Medicaid Services (CMS) began to implement a reimbursement system that adjusts payment rates based on patient satisfaction scores (Lyu et al., 2013). Patient satisfaction is a key determinant of quality of care and an important component of the pay-for-performance metrics instituted by CMS. Beginning in 2012, CMS implemented value-based incentive payments to acute-care hospitals based in part on results of satisfaction surveys from patients discharged on or after October 1, 2012. The patient's perception of quality is significant determinant of the provider's federal reimbursement. Patients now make

decisions based on their perceptions of the quality of and satisfaction with health care providers (Bowers, Swan, & Koehler, 1994).

A study conducted by Fenton, Jerant, Bertakis, and Franks at the University of California–Davis examined mortality rate in relation to patient satisfaction ($N = 51,946$); the researchers' analysis adjusted for a number of factors (i.e., demographics, health status and chronic disease burden, Year 1 utilization and expenditures, availability of a usual source of care, and insurance status). The investigators were surprised to find that, in comparison with the mortality rate of patients in the lowest satisfaction quartile, the mortality rate of patients in the highest satisfaction quartile was 26% higher (adjusted hazard ratio, 1.26; 95% CI [1.05, 1.53]). This perhaps counterintuitive finding raises the question of whether current satisfaction measures are in fact good indicators of health care quality (Fenton et al., 2012). The researchers concluded that the connection between patient satisfaction and health care outcomes is yet unclear.

Practitioners need to understand that ineffective communication can result in poor outcomes. Improved communication not only results in better health outcomes, but also may positivity impact patient satisfaction. For patients who want to be involved in their care and who understand what is occurring during care, improved communication may ultimately lead to greater patient satisfaction. The inclusion of APNs in the care team has been reported to improve communication and the efficiency of care (McCauley, Bixby, & Naylor, 2006).

Evidence-based practice. Evidence-based practice (EBP) is at the forefront of change in today's health care environment. EBP is the practice of using documented evidence as a guide to problem solving approach to clinical decision making. To

implement EBP, one must "locate, critique, synthesize, translate, and evaluate evidence" (Drenning, 2006, p.299). This includes the dissemination of information during the implementation phase of practice. Although ostensibly EBP is the standard of nursing practice, implementation of EBP is not always easy (Krom & Bautista, 2010). Barriers to EBP implementation include (a) lack of requisite knowledge and skills on the part of clinicians, (b) perception that EBP is time consuming, (b) perception that EBP is burdensome, and (d) lack of management support at the organizational level (Melnyk & Fineout-Overholt, 2012). Among clinical staff members, APNs, nurse educators, and DNPs—who understand translational research—are uniquely qualified to fulfill their responsibility to fulfill the mandate to implement evidence –based changes in practice. These organizational change agents must persuasively teach the EBP process to staff nurses and thereby transform the organizational culture—from a culture in which change is resisted to a culture in which evidence-based improvements in practice are welcomed. To achieve this transformation in organizational culture, APNs, nurse educators, and DNPs must employ an interactive approach.

APNs serve as both leaders and knowledge resources for helping nursing staff to ground care in current evidence. In a study conducted by Mahanes, Quatrara, and Shaw (2013) at the University of Virginia, the researchers implemented APN-led nursing rounds. Although the specific effects of the APN-led nursing rounds were impossible to isolate, Mahanes and her colleagues were able to determine that rates of blood stream infections, catheter-associated urinary tract infections, hospital-acquired pressure ulcers, and ventilator-associated pneumonia and falls all declined. Similarly, in study that a analyzed the effectiveness of an APN-managed heart failure program, Dahl and Penque

(2002) reported reduced 90-day readmission rates, fewer in-patient hospital days, lower

re-admission charges, and lower overall charges for health care services.

APNs have demonstrated implementation of EBP practices, better working

relationship with staff nurses, and improved patient-centered care with cost savings. The

development of an intraprofessional APN–staff nurse team to conduct bedside rounding

should improve patient care, increase communication and collaboration, and improve

patient satisfaction.

The daily goals reminder sheet. The need to develop clear team communication

has led to the development and institution of daily goal sheets. Studies in ICUs have

demonstrated that the use of daily goal sheets can result in nurses' and physicians' having

better understanding of patient care goals and in decreased ICU length of stay (Agarwal

et al., 2008; Narasimhan et al., 2006; Pronovost et al., 2003). A study conducted by

Phipps and Thomas (2007) examined the use of a daily goals sheet in the ICU at The

University of Pennsylvania's Hershey Children's Hospital. The researchers found that

85% of nurses felt the use of the goals sheets improved communications between

physicians and nurses and improved communication between nurses working on different

shifts. Phipps and Thomas also reported that 95% of the nursing staff felt that the extra

expenditure of time spent in completing the daily goals sheet was worthwhile. In another

study, the Beth Israel Medical Center in New York instituted use of a worksheet that was

posted at bedside after completion. Narasimham and colleagues (2006) found that pre and

post scores for understanding patient goals and communication improved significantly,

and that this improvement was sustained over a 9-month period. Furthermore, after

completion of the study, most of the practitioners requested that the use of the worksheet

be continued. In the DNP project, instituting a daily goals reminder worksheet associated with APN–RN–patient bedside rounding enhanced communication between APNs, staff nurses, and patients.

Needs Assessment and Description of the Project

   Population identification. In this DNP project, the population identified for selection and participation comprises APNs who have prior knowledge of and experience with APN–RN–patient bedside rounding.

   Identification of the project sponsor and key stakeholders. This DNP project has no sponsors. Key stakeholders include the student investigator and ultimately the APNs and RNs who will participate in the learning module.

   Assessment of available resources. No monetary resources were available for this project. As project investigator, I was responsible for the development of the learning module. The project had no public advertisement. APNs were approached through the hospital's standardized email by the student researcher (Appendix B).

   Team selection. The project investigator, served as the team for this project, with consultation from the DNP project committee members.

   Scope of the project. The project entailed only the development of the 1-hour learning module. Further plans for implementation will be considered at some point in the future. The module's topics included (a) the requirement for close communication and collaboration between team members to assure seamless, high-quality health care, (b) the definition of APN–RN rounds, (c) the schedule and length of rounds, (d) the personnel composition of rounding teams, (e) topics of discussion during the rounds, and

(f) the use of a daily goal reminder sheet to ensure the consistency of all elements of the patient's treatment plan and goals.

As project investigator, I used the literature as a basis for creating the written learning module. After completing the module and obtaining University of Nevada Las Vegas Institutional Review Board approval, the learning module was sent to three APNs in the hospital for review and feedback; all of these APNs had prior experience in working with APN–RN rounds at other facilities. In addition, to assess the learning module's effectiveness, I developed an evaluation form to be completed by participating APNs and RNs following their completion of the learning module.

All results of this project were shared with a representative of the CMC's administration and the Chief Nurse Executive. I hope to work with administration and staff in implementing the APN–RN–patient rounding on a pilot unit and, on the basis of results, further develops the model for use on other inpatient units.

Mission, Goals, and Objectives

The mission and goals of this project are to improve communication and collaboration between the intraprofessional team of APNs and staff nurses and to improve APN–staff nurse communication with patients.

This DNP project's primary objective was to develop a structured learning module pertaining to APN–RN–patient bedside rounding. The project's long-term goals, following completion of this project, are to implement the model and to improve communication and collaboration between APNs, clinical nurses, and the patients cared for by these nurses.

Chapter 3

Theoretical Underpinnings of the DNP Project

Of the several theories that have informed our understanding of holistic patient centered care and educating adults, two theories are among the most influential: King's theory of goal attainment and Knowles's theory of andragogy. In light of the theories' relevance to developing interventions for improving health care team collaboration and communication—the central concern of this dissertation—these two theories were selected to serve as the theoretical underpinnings of the DNP staff education project in support of APN–RN–patient bedside rounding. Specifically, King's theory of goal attainment informed the process of identifying content for the staff education module; Knowles's theory of andragogy informed the design of the module's presentation to training participants.

King's Theory of Goal Attainment

In "Crossing the Quality Chasm: A New Health System for the 21st Century," the IOM (2001) describes six aims for the improvement of health care. One of the aims is to provide patient-centered care that is respectful of and responsive to individual patients' personal preferences, needs, and values; in patient-centered care, patients' values play a central role in informing clinical decision making clinical decisions. Among theoretical frameworks that inform clinical understanding of the role of the patient in this decision-making, Imogene Kings' theory of goal attainment is seminal.

King's theory and patient-centered health care. In King's theory, health care team decision-making includes a "transaction" in which the nurse and patient engage in

mutual goal setting (King, 1991, pp. 19). According to King, this *transactional process of interpersonal systems* involves four steps—action, reaction, interaction, and transaction—by which the patient and nurse (a) share information about their perceptions; (b) set goals (through communication and interaction); and (c) explore and agree on means to achieve these goals. To implement a true transactional process, the communication environment must be reciprocal, and bidirectional. In this DNP project, King's theory—including the theory's view of this transactional process—was applied to inform the design of a patient-centered clinical environment. For example, to create and maintain a patient-centered environment, APNs, clinical nurses, and patients must share and be mutually informed about relevant considerations.

The theory of goal attainment: Assumptions and concepts. King developed her theory of goal attainment in the 1960s. This theory describes the interpersonal dynamic relationships between patients and their quest for goal attainment. Factors that can affect goal attainment include roles, stressors, space, and time. In order for health care to be optimal during the course of treatment for individual patients, both the patients and their providers must continuously accommodate and adjust for changes in these factors.

King's theory refers to three interacting systems: individuals (personal system), groups (interpersonal system), and society (social system). The personal system is a unified, complex, whole self who perceives, thinks, desires, imagines, decides, identifies goals, and selects means to achieve them.

Assumptions. King's framework is based on two assumptions:

- ▪ Human beings are the focus of nursing.

- The goals of nursing are health promotion, maintenance and restoration, care of the sick or impaired, and care of the dying.

On the basis of these assumptions, King designed a conceptual system to explain the organized wholes in which nurses are expected to function (see Figure 1; King, 1999).

Wholeness. King used the concept of "wholeness" to describe the broader organization or social systems in which nurse's function. (King, 1996, p. 61). The goal of an interacting system is health for individuals, families, communities, and the world (King, 1996).

Personal, interpersonal, and social systems. King's conceptual framework is organized into three "systems": personal, interpersonal, and social. A *personal* or *individual system* is essentially a single whole system. In contrast, *an interpersonal system represents* the interaction of two or more individuals (i.e., small groups) in various environments. *Social systems* are composed of large groups, such as educational, governmental, or religious organizations.

Figure 1. King's Conceptual System of Wholeness
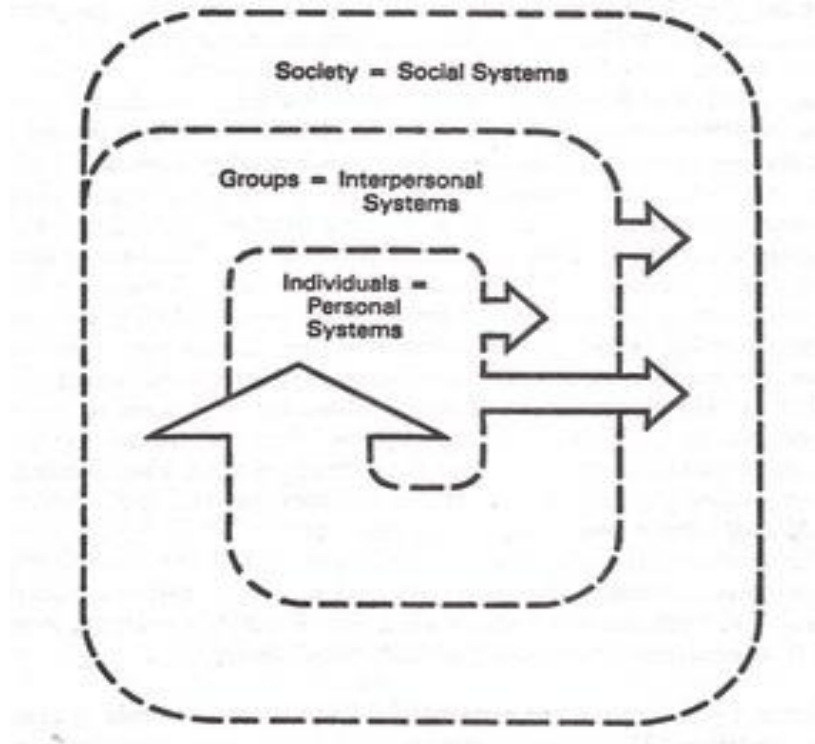
King's conceptual system of wholeness depicts the interaction between individuals, groups, and society. Adapted from "Dynamic Interacting Systems," by I. King, n.d., in *King's A Theory for Nursing: System, Concepts, and Process*. Retrieved from http://nursingtheories.weebly.com/imogene-m-king.html

Goal setting as a transactional process. In King's conception, *transaction* is a process in which human beings interact within their environment to achieve valued goals; King emphasizes that these interactions are purposeful—that is, that these behaviors are goal-directed (King, 1999). When goal setting involves participation by both patients and nurses, and both of these participants agree on the means to achieve their mutual goals, achievement of goals is more likely (Messmer, 2006). In its depiction of the transactional

process of interpersonal systems, Figure 2 presents a framework for understanding the nurse–patient interaction process. In practice, APN–RN–patient bedside rounding entails interdisciplinary collaboration and mutual goal setting. The theory of goal attainment elucidates the nature of interdisciplinary collaboration; application of the theory to inform the design of such collaboration increases the probability that collaborators' objectives will be attained. With regard to health care, the use of King's theory fosters interdisciplinary collaboration that is intended to improve patient outcomes.

Figure 2. King's Transactional Process of Interpersonal Systems
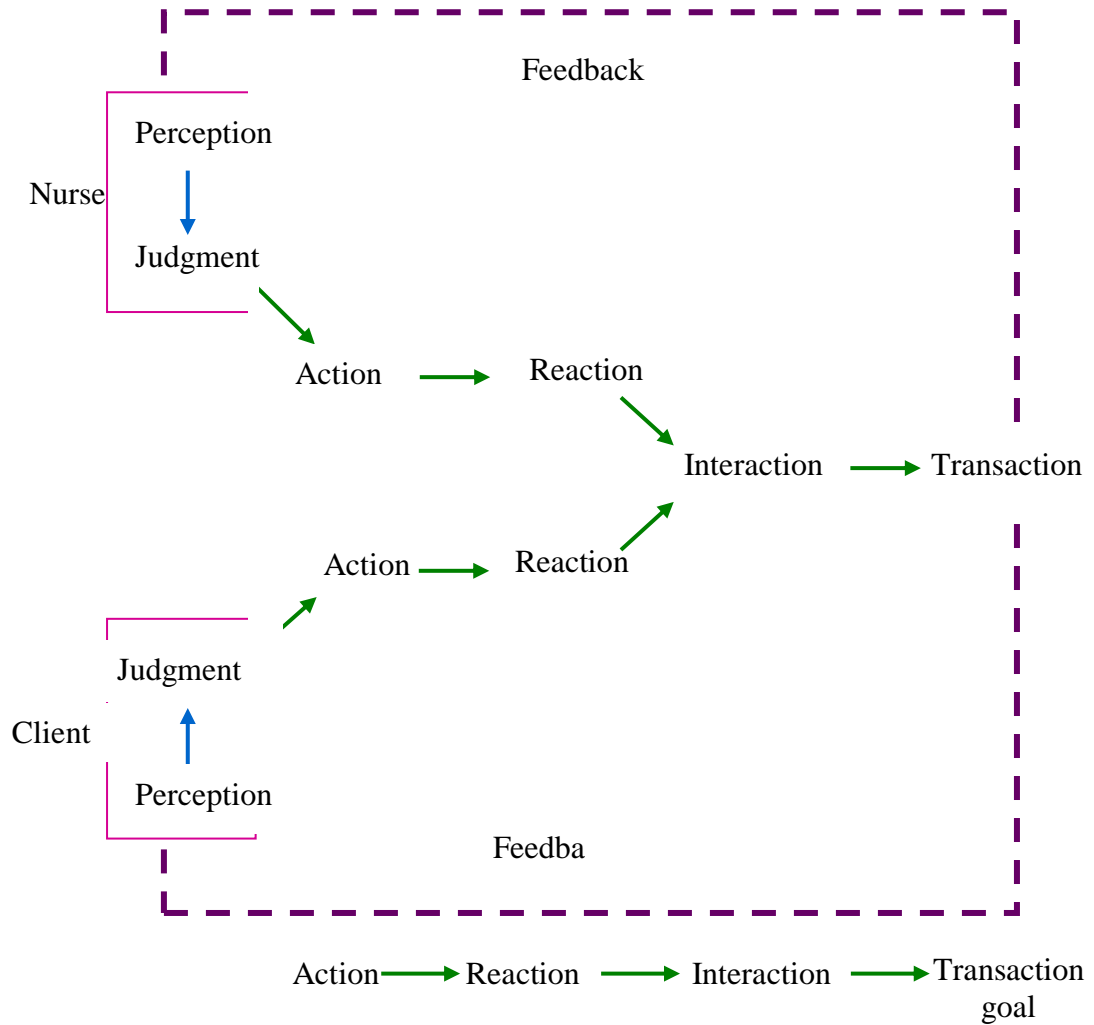
Adapted from "Dynamic Interacting Systems," **by I. King, N.D.,** in *King's Conceptual System and Theory of Goal Attainment and Transactional Process.*

King's emphasizes that nurse's ability for critical thinking, observing behavior, and collection of specific information is essential for decision-making and to meet the needs of patients. Figure 3 demonstrates how critical thinking is an important part of the decision-making process or cycle. Critical thinking skills are often viewed as the hallmark of an expert nurse. This can be viewed as thought process that organizes information, coupled with an exploration past experiences to help formulated conclusions or decisions. Critical thinking is the "assimilations and analysis of health care evidence that is differentiated according to its usefulness, efficacy and application to patients." (Banning, 2008, pp. 177)

Figure 3. King's Conceptual Framework
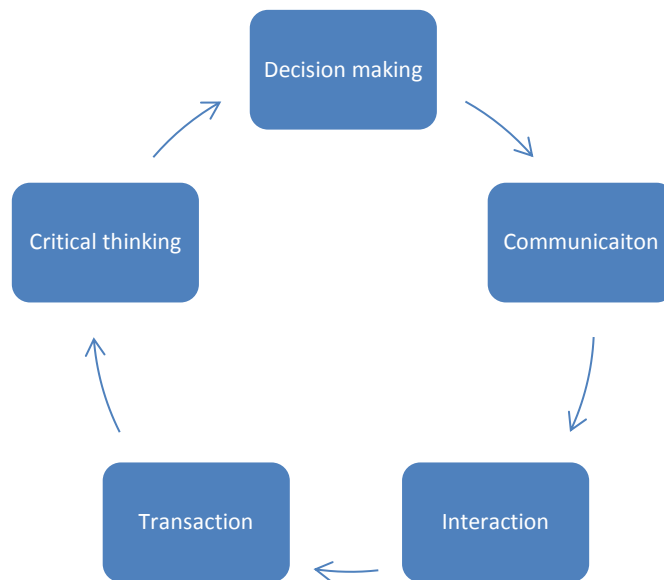
King's conceptual framework depicts how critical thinking, transaction, interaction communication, and decision making interact. Adapted from the "King's Conceptual Framework," by Khurshid Khowaja, in *Australian Journal of Advance Nursing,* 2006, *24*(2), 44–50.

Application of the theory of goal attainment. The theory of goal attainment has been applied to nursing practice and research for more than 30 years. Although historically the application of goal attainment theory in health care contexts has focused on interaction between patients and nurses, King herself suggested that the theory is relevant for any interpersonal interaction, including interactions among any health care professionals across the whole range of disciplines (Fewster-Thuente & Velsor-Friedrich, 2008). To date, staff nurses, administrators, educators, researchers, and other health care professionals have used King's framework worldwide. For example, the theory has been instrumental in developing research instruments to facilitate investigation of other mid-range theories, such as the theory of group power (Fewster-Thuente & Velsor-Friedrich, 2008). In this DNP project, the application of the theory of goal attainment fosters interdisciplinary collaboration with the intent to improve patient outcomes.

Knowles's Theory of Andragogy

Since the 1990s, the discipline of *andragogy*—which describes the principles, approaches, and methods of adult education— has been applied to nursing education and practice (Milligan, 1995). The concept of andragogy is based on the recognition that most adult learners learn best through learning–teaching approach that is compatible with adults' view of themselves as being autonomous and growth oriented. A core principle of andragogy is that for adult learners, an adult student-centered educational approach must enhance self-concept, promote autonomy and self-direction, and develop critical thinking skills—professional attributes and abilities that are essential in nursing practice (Milligan, 1997). However, although andragogy takes adults' predisposition for self-

direction into account, the theory does not advocate that individual adult learners should be left in isolation, without resources or support. Rather, the adult-specific principles and practices of andragogy are based on the recognition that different learning states—specifically, the cognitive–affective learning state of the adult learner—require state-appropriate teaching styles (Milligan, 1997).

Historical application of the term "andragogy." Although Knowles was the first to describe andragogy as a model for modern adult education, the term *andragogy* was first used in 1833 by Kapp to describe the teaching approach used by Plato with his students (Smith, 1996, 1999). In 1926, Eduard Lindeman used the term as the key method for teaching adults. However, the term "andragogy" did not come into broader use until 1966, when Knowles began using the term to describe adult leadership and education (Henschke, 2011). Recognizing that adult learning processes are different than those of children, Knowles developed his theory of andragogy to accommodate adult learners' specific cognitive and affective needs. His work was a significant factor in reorienting adult education from a teacher-centered methodology to a student-centered methodology (Knowles, 1950).

Six assumptions of andragogic theory. Knowles proposed that six core hypothesis that are fundamental to adult learning: self-concept, experience, readiness to learn, orientation to learning, motivation to learn, and need to know. These assumptions are summarized as follows:

Self-Concept. The individual is not completely dependent on the instructor for direction. Adults "resent and resist situations in which they feel others are imposing their wills on them" (Knowles, Holton, & Swanson, 1998, p. 65). As individuals mature, they

become more self-aware, self-directed, and independent in making decisions about what and how they will learn.

Experience. As individuals mature, they also acquire a wealth of experience and knowledge that are relevant in the learning experience. Most adults seek acknowledgment of their past experience, and this experience can serve as a resource for learning. To take advantage of the learner's life experience, good teachers augment learning in the adult classroom with simulation exercises and problem-solving activities.

Readiness to learn. Adults become ready to learn—to acquire new knowledge or a skill—when they come to feel that the potential learning has practical utility. The basis of readiness to learn is willingness to learn.

Orientation to learning. Adults' orientation to learning may be problem-centered, task-centered, or life-centered. Adults want to know that their learning can be applied to real-world situations in daily life (Ozuah, 2005).

Motivation to learn. For adults, motivation to learn is often based on intrinsic factors—for example, a desire to increase self-respect and personal pride (Ozuah, 2005).

Need to know. Adult learners need a reason to learn. In seeking to assess the value of acquiring new knowledge, adults consider both the potential benefits of the knowledge and the consequences of not acquiring the knowledge. Accordingly, effective teachers catalyze adults' learning by helping the learners to discover potential benefits of acquiring the knowledge under consideration (Knowles, 1980).

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Figure 4. Knowles's Six Core Assumptions
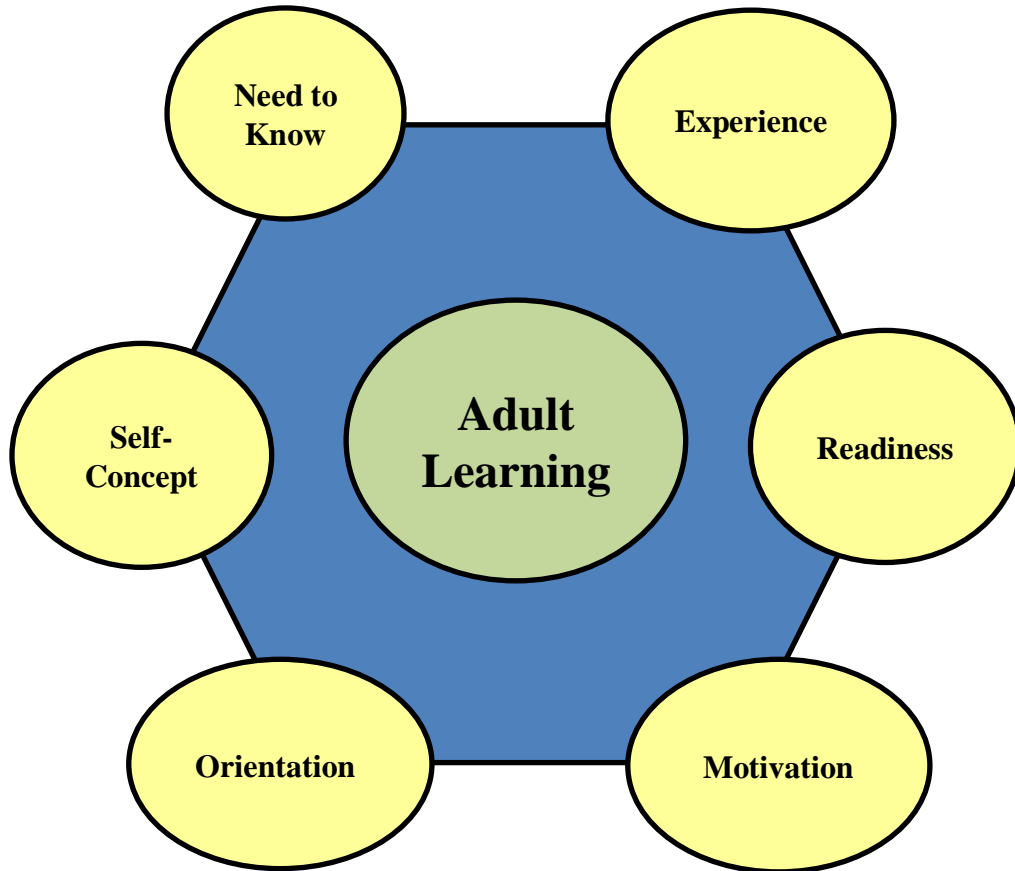
Knowles's six core assumptions demonstrating the interaction between the six characteristics of adult learning   Adapted from Adapted from Knowles's *The Modern Practice of Adult Education from Pedagogy to Andragogy.* Retrieved from http://etec.ctlt.ubc.ca/510wiki/images/thumb/d/de/Adultlearner.jpg/300px-Adultlearner.jpg

Andragogy vs. pedagogy. Whereas "andragogy" refers to the teaching of adults, "pedagogy" refers primarily to the teaching of children (Kearsly, 2010). The distinction between these two disciplines is based on the fact that adults' motivation to learn differs

markedly from that of children. Children, who have relatively little life experience, must typically depend on others (e.g., parents, teachers) for guidance in learning. In contrast, adult learners, who possess a richer personal resource of life experience, typically prefer to be more self-directed in their learning. Children are primarily motivated by external rewards and punishments; for adults, internal incentives and curiosity are strong motivating factors. Adults' motivation to learn often stems from a need to perform tasks of daily living and to solve practical problems. Because of these age-related differences in motivation, *pedagogic* education emphasizes transmission of knowledge; *andragogic* education emphasizes attainment of knowledge. In contrast with andragogic education, pedagogic education is more subject-centered; for children, curriculum, teaching approach, and methodology are more closely tied to considerations of age appropriateness than is the case for adults.

Knowles's principles/assumptions of andragogy. Knowles believed that for optimal adult learning, four principles must be applied and followed:

- Adults must be involved in the planning and evaluation of their instruction. Essentially the adult learner needs to know why they are learning something before they
- Experience—including experience in which mistakes are made—provides the basis for learning activities.
- Adults are most interested or motivated in learning content that has immediate relevance to their job or personal life.
- Adult learning is problem-oriented rather than content oriented. (Knowles, 1984; Kearsley, 2010).

Figure 5. Four Principles of Andragogy
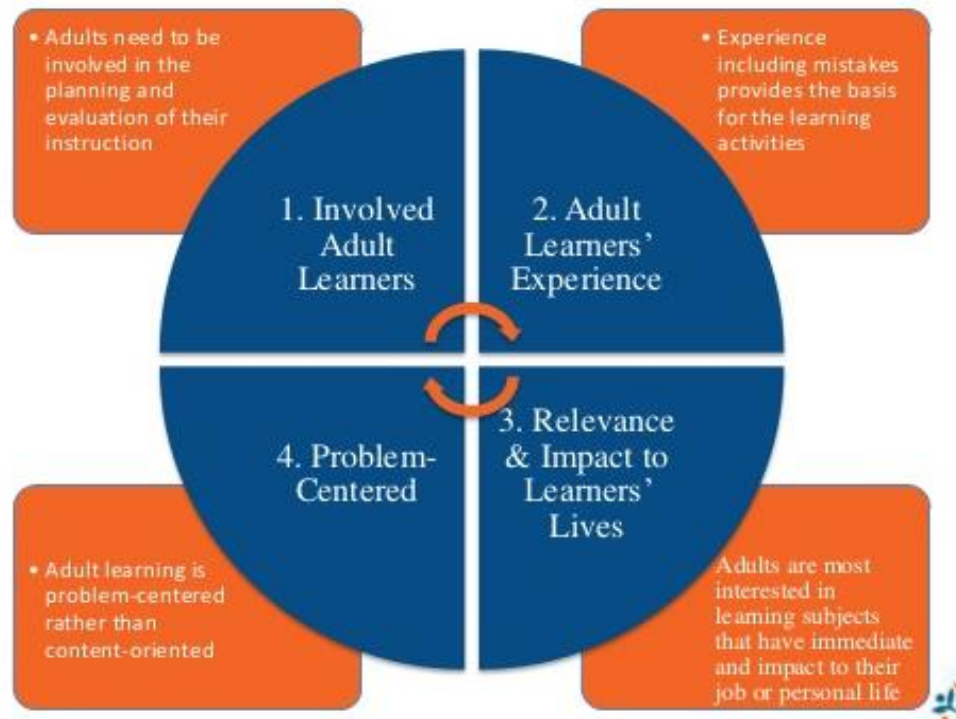
Knowles's four principles of andragogy pertain to the interaction between the involved learners, the learner's experience, the relevance of learning, and problem-centered orientation. Adapted from "Knowles's 4 principle of Andragogy," in *The Modern Practice of Adult Education from Pedagogy to Andragogy*. Retrieved from:

   For optimal adult learning, the educational environment must be characterized by respect for personality, learner participation in decision-making, freedom of expression, and availability of information. Both the learner and teacher should share responsibility

for defining and evaluating goals, and for planning, conducting and evaluating learning activities (Knowles, 1980).

Figure 6. Knowles's Andragogy Practice Model
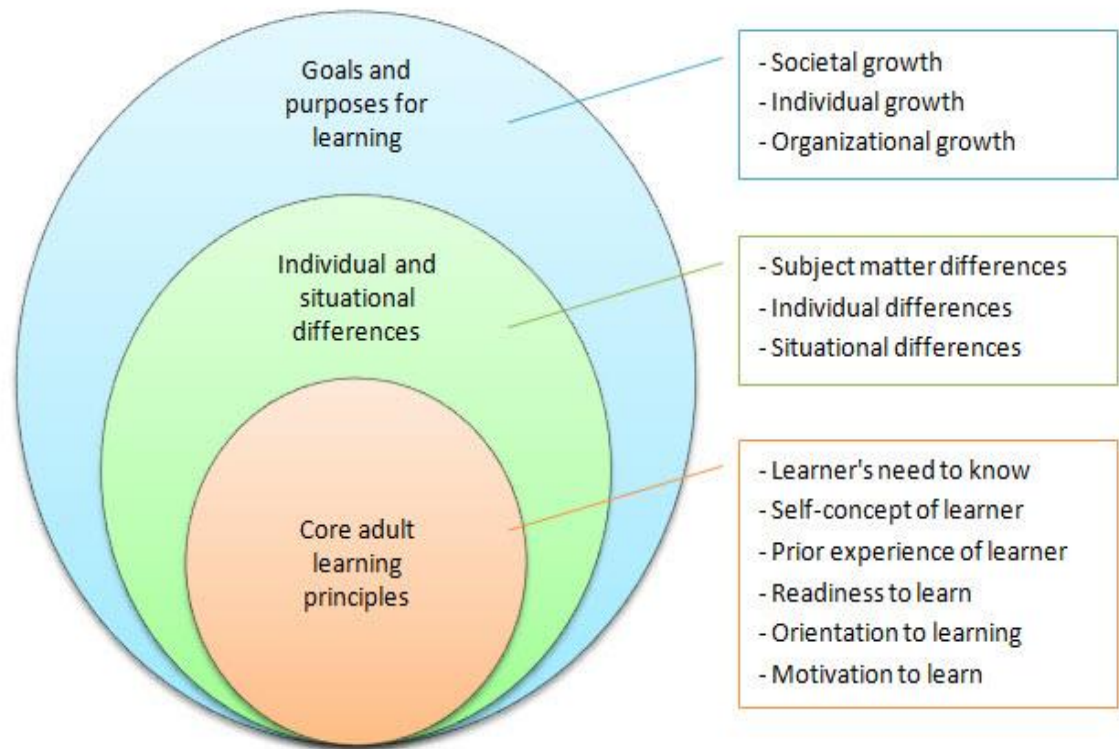
Knowles's andragogy practice model depicts the interactions between the learner's principles, individual and situational differences, and societal/individual purposes for learning. Adapted from "Andragogy Practice Model" by M. Knowles in *The Adult Learner.* Retrieved from http://elearningindustry.com/

Ramifications of andragogy for teachers of adults and for educational design. To be effective in the adult classroom, educators must know the concepts of adult learning theory and must be able to incorporate them in their teaching practices. In

Knowles's view, educators are facilitators who assist learners in setting and achieving

goals. Knowles emphasized that for educators, recognition of the connection between

learner characteristics and the learning process is essential for success. Teachers of adults

must keep in mind that adult learners must know *why* something is important for them to

learn and *how* they can use it in their everyday lives. Knowles's theory characterized

adult learning in two ways: that adult learning is *problem centered* rather than *subject*

centered and that, for adults, application of knowledge should be immediate, rather than

postponed (Merriam, 1996). Andragogy includes guidelines for instructional design that

optimize the educational experience of self-directed, independent adult learners. Knowles

asserted that self-concept, experience, and readiness to learn are critical factors that

distinguish adult learners from child leaners (Carpenter-Aeby & Aeby 2013)

    Andragogy in application. Health care and andragogy develop and are

conducted in philosophically similar contexts: in both health care and andragogy, the

inevitability of change profoundly affects practice. As a specific example, both the

patient–provider relationship and the learner–teacher relationship are dynamic and ever

changing. In addition, the principles of andragogy can be applied to any form or context

of adult learning—including provider and adult patient learning. Indeed, andragogic

principles have been used extensively and successfully in the design of diverse types of

health provider training—for example, in training medical residents and nurses. Birzer

(2003) and Bennett (2012) have pointed out that both residents and nurses spend a great

deal of time teaching adult patients. Accordingly, when teaching medical residents how

to teach, Bennett (2012) included andragogical tenets as topics in their instruction.

Similarly, andragogic principles can inform the design of nurses' training nurses in how

to teach adult patients—for example, by encouraging nurses to give patients greater control of their learning.

Knowles's view of human relations is also applicable to nursing. For example, Knowles (1988) believed that most societal problems relate to human relations and that all human relations depend on acceptance, love, and respect (pp. 57). Clearly, these views are applicable to nursing. Knowles (1950) believed that adults should learn to react to causes of behavior—not to symptoms of behavior. This perspective is pertinent to the nurse's professional growth and development, for example, in the development of nurses' objectivity and critical thinking skills. Imparting knowledge of critical thinking skills that lead to incorporating best evidence-based practice will ultimately improve overall patient care and satisfaction.

Table 1: Guide for Incorporating Andragogy into Teaching (Bennet, 2012).

Teaching Goals	Teaching Methods
Encourage continual knowledge development through planning, feedback, and assessment of experiential and applied learning.	▪ Assess the learner's need at the outset and their outcome after teaching. ▪ Develop specific learning goals and objectives. ▪ Foster a climate of learner inquiry and accept constructive feedback. ▪ Provide constructive feedback to encourage accurate self-assessment and self-reflection.
Facilitate autonomy by increasing degrees of learner control and promoting a peer relationship.	▪ Engage learners and support their autonomy. ▪ Activate learning by seeking adult learners' input. ▪ Ask learners to articulate their ideas.
Adapt teaching to learners' needs and effectively bridge prior knowledge and new learning objectives.	▪ Adjust teaching to learners' contexts, cultures, and levels of prior knowledge. ▪ Lead large- and small-group discussions. ▪ Customize a lesson's content and approach to learners' learning needs. ▪ Establish rapport with learners.
Adjust teaching to individual and collective levels of life development and understand what contributes to a positive climate for change.	▪ Evaluate evidence of learning to determine learners' readiness for new roles. ▪ Be a positive role model. ▪ Provide supervision and advocacy appropriate to learner level.
Teach the most relevant and immediately applicable content to solve real clinical problems.	▪ Summarize teaching into take-home points of most relevant information. ▪ Use case examples and involve multidisciplinary instructors. ▪ Capitalize on "teachable moments."

Synthesis: Ramifications of King's and Knowles's Theories for the DNP Project.

Knowles's theory of andragogy can be used to guide an adult learning program to ultimately achieve King's concept of "patient centeredness and wholeness" with intraprofessional collaboration. Given the continuous, accelerating evolution of the field of health care, hospitals must optimize processes that result in the use of evidenced-based nursing to achieve patient-centered practices. To achieve these goals, continuing education of nursing must first understanding the audience of learners and how they learn influences how subject matter is presented. The educational approach used to provide this information must take into account that as adult learners, nurses must be taught in a manner that is cognitively and affectively congruent with adult learning needs

Inter-theory agreement and compatibility. Both Knowles and King share a view of critical thinking. Adult learning is achievable through student centeredness that enhances the student's self-concept, autonomy, and critical thinking skills. The adult learner draws from life experience. King's emphasizes that nurse's ability for critical thinking, observing behavior, and collection of specific information is essential for decision-making and to meet the needs of patients. Critical thinking requires that the nurse draw from life experiences.

Finally, both goal attainment theory and andragogy cannot be separated from a wider sociopolitical climate. Interacting of individuals for goal attainment in health care are connected by communication links to achieve a purpose.

Conceptual conflict between the theories. Areas of conflict between the two theories include Knowles belief of self-directedness giving the adult student primary responsibility for the pace and direction of learning giving the student the power, whereas

King believes in a constant interaction between an individual, group or society establishing shared power.

Theory Limitations. Limitations to Knowles theory of andragogy is simply that not all learning can be classified as self-directed student-centered learning. In nursing and medicine there is an overlap with pedagogy. There are instances in health care that specific concepts must be learned at a pace not dictated by the student but by the hierarchy or the institution. When the APN–RN–patient bedside rounding is instituted at CMC, management, forcing the nursing staff into a pedagogical role, will mandate it. The teaching model is based on andragogy thus addressing concepts need to be addressed but including simulations for self-directed learning of the concepts presented.

Synergistic understanding of blending King and Knowles theories. When people move from the pedagogy to andragogy of learning the power shifts from teacher to learner. At one time, medicine represented a dominate power with nursing representative of the powerless subservient, oppression. As we have moved into the 21st century, the practices of medicine and nursing have also witnessed a power shift, becoming collaborative changing the unequal power paradigm to a collaborative interaction with patients. This movement is towards King's transactional process of interpersonal systems with a constant sharing between individuals groups and society.

Consideration of King's goal attainment theory and Knowles's theory of andragogy in tandem leads to understandings that (a) communication and collaboration are required to achieve a patient-centered environment of mutual goal setting and goal attainment, (b) reflective practice should be used to facilitate a critical thinking approach

to intraprofessional nursing practice, and (c) learning should be andragogically directed

for the achievement new evidence based practices in nursing.

Chapter 4

Project Plan

Background and Setting

At the DNP project site, Chicago Medical Center (CMC), staff nurses currently engage in bedside shift handoffs. The hospital defines *bedside shift handoff* as the nursing activity in which a departing nurse reviews the patient assessment and ongoing needs with an oncoming nurse. This review is conducted in the presence of the patient. APNs do not participate in this handoff; instead, APNs see each of their patients individually. While visiting a patient, an APN typically conducts a physical examination, reviews current and pending tests, and discusses any of the patient's needs.

In addition to bedside shift handoffs, structured table rounds (STRs) are held in each hospital unit daily from 8:00 a.m. to 10:00 a.m. Participants in these STRs include APNs, the charge nurse (who may or may not be the nurse directly managing the patient's care that day), a social worker, a pharmacist, and, in some units, a physical therapist. Because of time constraints, staff nurses do not ordinarily attend STRs; also, at CMC, patients do not participate in STRs. Resident physicians are called by the APN only when needed. Following the conclusion of STRs, the charge nurse updates each of the staff nurses on patient plans for the day. Notably, since CMC implemented the use of STRs in 2009, communication among staff members has improved substantially (O'Leary, 2012).

Daily bedside rounds are held for all hospitalized patients as a way for the health care team to quickly gather and discuss patient progress and next steps in care. Typically, the group involved in the rounds is composed of physicians, and, sometimes, other health

care professionals (e.g., pharmacists). However, APNs and RNs, who are at the bedside more than are any other members of the health care team, are not included in the daily bedside rounds. At CMC, an overseeing physician debriefs the APN who manages the patient after the rounds. The APN must then also debrief the RN who will provide patient care that day. Debriefing can result in miscommunication or non- communication of important information to RNs, and, ultimately, in fragmented patient care. Currently, the structure of the physician round at CMC cannot be changed. Therefore, as project investigator, I developed a 1-hour learning module that will use a daily APN–RN–patient bedside rounding model to facilitate communication and collaboration regarding patient care. Initial discussions with a few nursing administrators has received their favorable response indicating that the hospital administration may support implementation of this staff intervention.

In today's health care environment, all care should be patient centered. In recent years, patients have been encouraged to be more active in their treatment and care. Nurses assist and guide patients toward self-care and independence following all types of interruptions to health. Inclusion of the patient as a partner in the rounding process is imperative. The APN–RN–patient bedside rounding model is used at some U.S. hospitals but it is not currently use at CMC.

The purpose of this Doctoral Nursing Program (DNP) project was to develop a 1-hour, structured learning module for APNs and clinical RNs on the use of a new bedside rounding technique to increase communication and collaboration between APNs and clinical RNS

The project entailed only the development of the learning module. Further plans

for implementation will be considered at some point in the future. Module topics included

(a) the requirement for close communication and collaboration between team members to

assure seamless, high-quality health care, (b) the definition of APN–RN rounds, (c) the

schedule and length of rounds, (d) the personnel composition of rounding teams, (e)

topics of discussion during the rounds, and (f) the use of a daily goal reminder sheet to

ensure the consistency of all elements of the patient's treatment plan and goals. The

literature served as a basis for creating the written learning module. After the module has

been completed, it will be sent for review to three APNs in the hospital who have prior

experience working with APN–RN rounds at other facilities. In addition, to assess the

learning module's effectiveness, an evaluation form was developed for use following the

1-hour learning module by participating APNs and RNs.

Design, Setting, and Sample

Design. This DNP project is the development a structured learning module,

utilizing EBP recommendations where utilized as a guide, to improve collaboration and

communication between APNs and RNs through the implementation of APN–RN patient

bedside rounding. Once development was completed, three APNs, familiar with the

APN-RN-patient bedside rounding style, reviewed and critiqued the project. The

structured learning module was updated and development completed for future

implementation.

Setting. The site of this DNP project is Chicago Medical Center (CMC), an

urban, university-based teaching center with 32 nursing units and 920 inpatient hospital

beds. This hospital is a designated Magnet Center of Excellence.

Sample. The population of interest was RNs and APNs who practice nursing in acute-care settings that employ both types of these nurse professionals to provide daily patient care. The sample used for the development of the learning module included APNs at CMC who had prior experience in using APN–RN-patient bedside rounding. Eligible candidates were personally approached through email to review the learning module for clarity, accuracy, and completeness. The project required no public recruitment or advertisement. If an APN expressed interest in participating in the project and returned a positive response email, the consent form, PowerPoint learning module, and post-evaluation instrument were emailed to the APN. Consent for participation was inferred by the return of the review and evaluation form.

Inclusion criteria. To participate in this study, subjects had to be APNs who met the following criteria:

- Be familiar with APN–RN–patient bedside rounding

- Be willing to participate as demonstrated by returning review/feedback form

- Be available to (a) review a 60-minute structured learning module and (b) complete a post-evaluation instrument

  Exclusion Criteria. Exclusion criteria were

- Lack of experience with APN–RN–patient bedside rounding.

- Lack of willingness to participate in the project

Measures, Instruments, and Activities

Measures and Instruments. The DNP project required no statistical analysis. All reviews and comments were reviewed and analyzed. Adjustments and updates were made to the final learning module.

Activities and Timeline. This pilot study began with conducting an in-depth literature review followed by the development of an educational module. Upon receiving approval from the University of Nevada, Las Vegas, and the Institutional Review Board, the researcher proceeded to recruit APNs for participation. Table 1, "Project Timeline," presents the time periods of salient project activities.

Table 1. Project Timeline

Timeline	Activity
Sep–Dec 2014	Literature Review
	Development of a structured learning module
	· 1-hour learning module (via a PowerPoint presentation)
	· Daily rounding sheet development
Jan 2015	IRB approval was obtained from University of Nevada, Las Vegas.
Jan 2015	Three APNs were recruited to review the module's content.
Jan 2015	Recruitment e-mail initially sent to prospective APNS
Jan–Feb 2015	APNs interested in participation/review were emailed
	· Consent form
	· The learning module (a PowerPoint document)
	· Post-evaluation instrument
Feb 2015	Analysis of feedback

Project Tasks and Personnel

- The DNP project required no public advertisement.

- All qualified APNs were sent a recruitment email for possible participation.

- If an APN was interested in participation and responded to the recruitment email, recruitment email, she or he was sent a reply email (the investigator) sent the APN a reply email with the PowerPoint learning module, consent form, and post-evaluation instrument as attachments.

- Once the participating APN reviewed the learning module, returning the post-evaluation instrument was implied consent for participation.

- As project investigator, I collected and analyzed the post-evaluation instrument forms personally.

Risks and Threats

Risks and threats to staff and patient participants were minimal. The occurrence of harm was highly unlikely. Potential risks included discomfort in refusing to participate or in answering questions. To minimize the potential for staff participant discomfort, all instruments were emailed, and the return of instruments was voluntary, with no retribution for nonparticipation. All participants were able to withdraw from the study at any time without consequence.

Participants may not have had any direct benefit from participation in this research study, but they may have felt positively about helping to develop a process for rounding that may improve communication and collaboration among APNs and RNs in their provision of care to patients.

Resources and Support

The researcher developed the original concept for the DNP project based on readings from Henneman, Kleppel and Hichey's (2013) article "Development of the checklist for documenting team and collaborative behaviors during multidisciplinary bedside rounds."

Together with the nursing development director at CMC, a plan was formulated to meet the needs of APNs, RNs and patient's at CMC.

Protection of Human Subjects and IRB Approval

Prior to study inception, IRB approvals were obtained from the University of Nevada, Las Vegas. All post-evaluation instruments for the learning module were stored in a locked file. At all times I maintained sole possession of the filing cabinets only key. The cabinet itself was in a locked personal office; access to the office required use of a secure keypad code. The office is located at CMC's Fienberg Pavilion, Room 12-736.

Chapter 5

Results

Summary of Implementation and Results

This chapter discusses the DNP project's findings, reviews the project's

limitations, and presents suggestions for future implementation of the project.

Review of the literature. In the DNP project's preparatory stage, information

gained from an extensive literature search helped to determine the most important factors

influencing intraprofessional teamwork and patient-centered care: communication,

collaboration, and the ability to think critically during patient care.

Use of a goals sheet in bedside rounding. The concept of APN–RN–patient

bedside rounding with the use of a daily goals sheet to guide consistency emerged from

Henneman, Kleppel, and Hinchey's (2013) work in developing a checklist for

documenting team and collaborative behaviors during multidisciplinary bedside rounds.

Prior to their investigation, most research on interprofessional collaboration had

concentrated on ICU team rounding and communication. Henneman and her colleagues

believed that teamwork and collaboration is important for providing high-quality patient

care, but prior to their research, no objective means were available for evaluating the

team and collaborative behaviors during bedside rounds. Accordingly, the objective of

the work by Henneman and colleagues was to develop a reliable, valid checklist for

documenting team and collaborative behavior during "multidisciplinary" bedside rounds.

The goals sheet that these researchers developed was designed to facilitate focused

communication. Tests of goals sheet on general medical units found that the use of a

goals sheet in conjunction with interdisciplinary rounds reduced the number of calls made

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by staff nurses to clarify the plan of care; use of a goals sheet also improved communication and collaboration (Holzmueller et al., 2009). Specifically, the daily goals tools (a) served as a concrete guideline of the initiatives, (b) facilitated communication, and (c) standardized delivery of care through higher adherence to evidence-based practice guidelines (Halm, 2008; Holzmueller et al., 2009). In the design of the DNP project, Henneman's basic concepts were adapted for use in creating a useful plan that the project site (CMC) could implement on surgical units.

Development of a learning module. Initiation of the project began with the creation of a learning module. This learning module was developed with the core concept of APN–RN–patient being the center of the decision–care environment. In creating the learning module, King's theory of goal attainment was used as the project's theoretical underpinning, and Knowles' theory of andragogy provided the framework for the development of the learning module.

King's conceptual system and theory of goal attainment were conceived and developed in the 80's but is still relevant in today's healthcare system. Evidence-based practice, which emphasizes interventions and outcomes, is conceptually congruent with the principles of King's theory (1981). Her framework organized the process of nurse–client interactions into outcomes that goals attained. Human beings—specifically, patients—are the focus of nursing. In today's healthcare, patient care aims to be patient-centered and monitored by outcomes. King believed that the focus on the organizing of existing knowledge in nursing to expand the knowledge base is translated into today's evidence-based research/practice. Finally, the beliefs that nursing should be promoted as

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a science and the relationship between nursing and research is the way to build scientific knowledge (Khowaja, 2006).

The purpose of education is to close the gap between knowledge and practice. For a nurse to practice properly, there must be a balance of theory and practice. The nurse must be constantly updating current knowledge with continuing education (Ajani & Moez, 2011). To achieve the integration of theory into practice, Knowles's theory of andragogy assists in the designing and the conducting of adult learning, to build a more effective learning process for the nurse. A major assumption andragogy is that the learner (nurse) is driven by his or her own background and life experiences to become self-directed, independent and autonomous in the learning process (Harden, 1996). This DNP project utilized three APNs' background and life experiences to critique and improve the learning module. Philosophically, the theory of andragogy suggests that nurses should continue to learn and change throughout their working life. Andragogy reflects the general practice that adult students (in the case of the DNP project, APNs and RNs) are adult learners learn best through a self-directed, experiential, problem-solving approach (Balsamo & Martin, 1995).

The DNP projects learning module integrates theory and practice, assesses learning, and creates an intraprofessional experience.

DNP project committee acceptance was obtained, followed by IRB exempt status, was obtained from the University of Nevada, Las Vegas, Institutional Review Board, on January 21, 2015. The next step was to send recruitment emails to APNs having a working knowledge and experience with APN–RN–patient bedside rounding (Appendix B). There are currently over 200 APNs working at CMC. This investigator personally

knows more than half of the APNs at CMC. Five APNs were selected to receive

recruitment emails. Four APNs responded favorably and meet with the investigator to

learn more about the project. Consent forms, the post-evaluation instrument, and Power

Point Presentation Learning Module were emailed to each participant the same day as

their response. All expressed excitement about the project and were willing to participate.

Two weeks after the initial contact, none of the post evaluation instruments had been

returned (Appendix D). Follow-up emails were sent, to inquire of continued interest.

Three of the four instruments were returned at the 3-week mark. The fourth APN did not

return the post-evaluation instrument. This was not followed up due to obtaining the goal

of three evaluations.

All results were tabulated and described in the data analysis section (Appendix E).

Each response is compared to each other for each question in the evaluation instrument.

Data

Threats and barriers to the project. The initial plan had been to actually

implement the APN–RN–patient bedside rounds. However, consensus with hospital

administrators could not be reached and so, with committee approval, the plan shifted to

focusing on just developing a module for later use, when more time for buy-in can be

obtained.

The first barrier to this project was the sparse literature on the use of APN–RN

rounds. An in-depth literature review was completed, with the CMC medical librarian

assisting in the review process. Although there is research analyzing the nurse-physician

and to a lesser extent, the physician-nurse practitioner relationships, there have been few

studies examining the APN–nurse relationship (Gooden & Jackson, 2004; Denning,

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2006; Gerrish et. al, 2011). There is a great deal of literature regarding shift handoffs, bedside nurse-nurse handoffs and a growing amount of interprofessional rounding teams, but no data specifically looking at APN-RN intraprofessional bedside rounding. Because of the void in literature, communication relationships of nurse–physician, nurse–nurse and APN–physician were analyzed. Data pertaining to the different styles of rounding were also analyzed.

In one of the few studies that has examined the APN–nurse relationship, Shebesta et al. (2006) reported that clinical staff nurses in their study were more satisfied with care provided by APNs as compared with care provided by resident physicians. The researchers also found that nurses rated APNs more favorably with care, communication, respect shown to nurses, more available for questions and response time. Shebesta et al. found that, in their study, APNs and nurses have a successfully collaborative relationship. Although the doctorate of nursing is translational in nature, although limited evidence available can be used a as springboard to developing and documenting a successful collaboration.

The second barrier to this project was the limited availability of content experts who were qualified to review the module. The APNs who were selected to review the module were practicing and were extremely busy. For these APNs, scheduling time to review the learning module and to provide substantive evaluations was difficult. The APNs' time restraints delayed their return of evaluation forms and the project's overall progress by 3 weeks. After initial receiving responses to participate, a follow-up email was needed to inquire about continued interest. After the follow-up email was sent, all participants responded favorably and returned the evaluation form within 1 week.

The project's final barriers was a lack of diversity in the reviewers' educational and professional backgrounds and qualifications. All participants were master's-prepared, board-certified APNs. In retrospect, middle management practitioners (such as the surgical practice managers) and staff nurses should also have been included to participate as reviewers. The APNs invited to participate as reviewers were clinical practice experts, but management can give a different view of feasibility and how this project could translate into a working pilot. Had staff nurses participated as reviewers, they could have given a different, unique perspective to the learning module. When this project reaches the pilot phase, I would recommend that three staff nurses and the practice managers of pilot units review the module for their unique perspectives to enhance the module farther.

Data Analysis

Analysis of the APN reviewer input data revealed that the APNs clearly supported the DNP project. Specific recommendation and approval of content included:

- Clear definition of discipline versus profession and clarification of multi-, intra- and inter-.these topics are often used interchangeably and specific definitions are not always understood.

- Discussion of communication is important; lack of communication is one of the greatest barriers to consistent execution of daily collaboration in the in-patient care setting.

- Any learning module that uses an intraprofessional approach is the most effective tool for improving APN–RN communication and staff perceptions of communication. The use of this type of learning module can positively affect care and treatment outcomes.

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- The APN–RN–patient bedside rounding structure is style of rounding is a process that includes the team at the bedside with the patient is only going to improve patient outcomes.

- The importance of understanding and documenting sentinel events through critical thinking is important and loops back with communication and collaboration.

- The APN–RN–patient bedside rounding structure provides a platform for APNs to teach and guide RNs in critical thinking. Also, the development of critical thinking improves an RN's commitment to quality care and teaching at the bedside from the APN. APN-RN interactions will positively improve their perception of the communication value that intraprofessional communication adds to development of clinical reasoning skills from both APN providers and bedside nurses.

- This learning module demonstrates how collaboration and the actions that creates collaboration was thoroughly discussed so that providers may apply interventions directly to their practice.

- Module The APN–RN–patient bedside rounding structure does not include a plan detailing appropriate timing of bedside rounds so that it was made feasible (easy to implement) by APNs, RNs, and patients.

The learning module can be expanded in several ways—for example,

- The learning module should include examples of communication break down and dysfunctional styles of intraprofessional communication that interfere with understanding, such as actions that can sabotage communication.

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- The learning module should include examples of basic skills and barriers to collaboration.

- The learning module should clearly define clinical reasoning and critical thinking skills.

- The learning module should define failure *to rescue*.

- The learning module should add family and/or significant other involvement whenever possible—even via phone, if possible—and especially with patients who are less capable of managing own care and decision-making.

- For implementation, consider altering the goals sheet, to reflect individual units such as ICU monitoring parameters or specialty units.

- All adjustment made to the learning module as noted in Appendix F.

Applying the data in meaningful contexts

Effective communication is the cornerstone of successful collaboration. As observed in Chapter 1 of this dissertation, communication and collaboration failures can have deleteriously affect the efficiency of clinicians and of the health care delivery system—as well as the quality of patient care (Wu et al., 2012). McCaffrey et al. (2010) found that before communication can be effective, the staff must understand the basic components of communication. These investigators found that in nursing school and in medical school, scant classroom attention is given to developing professional communication skills. In commenting on their research findings, McCaffrey et al. proposed that, to develop nurses' professional effectiveness, they should be trained to communicate ways that enhance patient outcomes. Having identified the need for

effective communication, the researchers implemented an educational program with elements of positive communication and collaboration. Nurse's participation in the program resulted in improved communication and collaboration, which in turn improved patient care.

Communication is the core of all successful professional relationships and is dependent on the APN's and nurses' "ability to listen, assimilate, interpret, discriminate, gather and share information" (Manning, 2006, p. 268). Manning also found that factors that can influence relationships include "gender, perspectives, education, culture, life experiences, stress fatigue, established hierarchies and social structures" (p. 268).

Given the limited resources in the current health care environment, the provision of high-quality, patient-centered care requires collaboration between staff members. McKay and Crippen (2008) found that in institutions where the degree of collaboration was relatively high, the mortality rate was 41% lower than the predicted mortality rate; conversely, in institutions where the degree of collaboration was relatively low, the mortality rate was 58% higher than the predicted mortality They found that positive collaboration increases organizational commitment and nurse satisfaction.

The IOM (2006) has asserted that the most effective strategies for reducing medication errors involve (a) increasing care provider communication with patients at every step of their care and (b) enabling and encouraging patients to take a more active role in their care. This patient-centered approach to care is the core component of quality care.

The learning module can be improved in two ways. First, the module's explanations of communication breakdown–barriers can be expanded. Such barriers and

breakdowns can be verbal or nonverbal. Common communication barriers include the use of medical jargon; inattention; differences in perception and viewpoint; inability to perceive non-verbal cues, gestures, or body language; and expectations or prejudices that may lead to false assumptions. Two other common barriers to collaboration include lack of consistency in communication between staff and physician expectation and assumptions regarding nurses that create barriers between team members (Wittenberg-Lyles, Goldsmith, & Ferrell, 2013). Ameliorating or avoiding such barriers requires the use of skills such as active listening, clarification, and reflection. In addition, in the module, the discussion of barriers to collaboration can be expanded. Such barriers to collaboration include compartmentalization of information without the exchange of information between participants. Finally, the module can also be improved by including family or significant others when available during patient discussion when possible.

Dissemination and Utilization of Results

Plans to implement. This DNP project was initially developed to improve communication and collaboration between the intraprofessional team of advance practice nurses and clinical nurses through the development of a structured, 1-hour learning module.

The 1-hour module covers (a) the need for close communication and collaboration between team members to assure seamless, high-quality health care, (b) the definition of APN–RN rounds, (c) when the rounds will occur and how long they take, (d)who is present during the rounds, (e) elements of discussion during the rounds, and (f)the use of a daily goal reminder sheet to ensure consistency of all elements of the patient's treatment plan and goals.

The review of the learning module has enlivened the interest of the APNs who reviewed the module. This learning module and plan to pilot this practice on a surgical unit were presented to CMC's surgical practice manager. She has also expressed an interest in implementing use of the module on selected pilot units. This implementation would not be addressed through the IRB, but rather, would be implemented as a quality improvement pilot. The surgical practice manager has suggested that I initiate and present the learning module to educate the APNs and staff nurses on the surgical units that will pilot the initiative. I will have the opportunity to educate the staff and spearhead the implementation of this style of rounding.

Retrospectively, the CMC dashboard can be used to compare patient satisfaction in the quarters before and after pilot implementation. These results can be tabulated from the Press Ganey Patient Satisfaction Survey.

Thus far, the surgical practice manger has reviewed the learning module and is now waiting for me to complete my commitment to UNLV prior to implementation. The next step is for the director of Surgical Nursing to review the learning module and to approve its initiation. Current projection of implementation in a pilot study is for June 2015.

Conclusion

The DNP project's specific aim was to create a patient-centered environment in which APNs and RNs work with the patient and engage in mutual goal setting. The process of collaboration requires that the APNs, RNs, and patients (a) share information about their perceptions and, (b) through communication and interactions, explore a set of goals and agree on a means to achieve those goals.

Use of Knowles's theory of andragogy provided a methodology, framework, and mechanism to guide and facilitate a teaching module to effect a desired change. Knowles believed that for optimal adult learning, four principles must be applied and followed:

- Adults must be involved in the planning and evaluation of their instruction. APNs participated in review and critique the learning module. This will be expanded to include a core of selected staff nurses (from the pilot unit) to also review and make suggestions for improvement and feasibility.

- Experience—including experience in which mistakes are made—provides the basis for learning activities. This learning module allows to practice of the APN–RN–patient bedside rounding initiative prior to "practicing" in a real life situation.

- Adults are most interested in learning content that has immediate relevance to their job or personal life. This learning module will be applied to everyday practice after the staff completes training, which will affect their preforming their job.

- Adult learning is problem-oriented rather than content oriented. This learning module has content that must be imparted to the staff, but part of the module includes a simulation where the staff practices the role of nurse/APN/patient.

For optimal adult learning, the educational environment must be characterized by respect for personality, learner participation in decision-making, freedom of expression, and availability of information. Both the learner and teacher should share responsibility for defining and evaluating goals, and for planning, conducting, and evaluating learning activities (Knowles, 1980).

APNs are in a unique position; in that, they often direct patient care, but have roots in nursing. They understand the function and communication of nurses. Combining the talents of APNs, in the direction of patient care with the RN, who knows the patient better than any other health care worker can only serve to improve the quality and patient-centeredness of care. Bedside rounding presents a daily opportunity to mutually strategize and communicate the plan and goals of care to the patient and family reflecting a concerted team effort to achieve the patient's goals.

The institution of nursing shift handoff has improved nursing communication and patient satisfaction. With that in mind, bringing the APN and RN rounding together at the bedside can only serve to also improve and enhance patient centered care. The time spent in this style of rounding will only serve as a time saver later in the day. Clarification of potential problems and goals become clear to all participants including the patient.

The use of bedside rounding with daily goal reminder sheets has demonstrated improved communication and patient care (Halm, 2008). Adding a daily goal reminder sheet will assist members to stay on task, include all components and be consistent with every patient every day.

Effective communication and collaboration are essential for building a patient-centered care partnership. We are hopeful that this learning module can become the first step in changing the existing rounding structure to improved communication and collaboration between APNs and RNs.

Detailed time line

Timeline	Activity
Sep–Dec 2014	Literature Review
	Development of a structured learning module
	· 1-hour learning module (via a PowerPoint presentation)
	· Daily rounding sheet development
Jan 2015	IRB approval was obtained from University of Nevada, Las Vegas.
Jan 2015	Three APNs were recruited to review the module's content.
Jan 2015	Recruitment e-mail initially sent to prospective APNS
Jan–Feb 2015	APNs interested in participation/review were emailed
	· Consent form
	· The learning module (a PowerPoint document)
	· Post-evaluation instrument
Feb 2015	Analysis of feedback

APN Recruitment Email

Date…

Dear…

I am one of the Vascular Nurse Practitioners here a NMH. I am also a Doctorate in Nursing Practice student at the University of Nevada, Las Vegas. I am currently working on a project to improve staff perceptions of communication and collaboration between advance practice nurses and clinical nurses through the use of an innovative APN-RN-patient bedside rounding procedure. My project is to develop a structured learning module regarding the APN-RN-patient rounds. My project is only about the development of the learning module. The one hour module will consist of the need for close communication and collaboration between team members to assure seamless, quality health care, the definition of APN-RN rounds, when the rounds will occur and how long they take, who is present during the rounds, elements of discussion during the rounds and the use of a daily goal reminder sheet to ensure consistency of all elements of the patient's treatment plan and goals.

I am asking for your help. You are being asked because of your knowledge and experience with APN-RN-patient bedside rounding. Specifically, I am asking that you review the 1-hour lecture module that I am developing. I will just need to hear back from you as the clarity, accuracy and completeness of information so I can make additional changes. I anticipate it would take 20-30 minutes of your time.

If you are interested in helping with this project, please let me know via email. I will contact you to set up a time to obtain your consent and provide you with a flash drive with the PowerPoint presentation. Thank you for your consideration in helping me with the project.

Sincerely:

Rita M Herm-Barabasz, RN, MS, ACNP-BC
Vascular Nurse Practitioner
Phone: 312-926-4477
Personal Email: RitaHB13@att.net

APN Consent Form

![UNLV University of Nevada Las Vegas logo]

INFORMED CONSENT

Department of <u>Nursing</u>

TITLE OF STUDY: Intraprofessional Nursing Communication and Collaboration:

APN-RN-Patient Bedside Rounding

1. **INVESTIGATOR(S):**
   Principal Investigator:

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For questions or concerns about the study, you may contact Rita Herm-Barabasz at 773-456-1396 or Lori Candela at 702-895-2443.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794 or via email at IRB@unlv.edu.**

Purpose of the Study

You are invited to participate in a research study to improve staff perceptions of communication and collaboration between advance practice nurses and clinical nurses through the use of an innovative APN-RN-patient bedside rounding procedure. This purpose of this project is to develop a one-hour learning module to teach Advance Practice Nurses (APNs) and clinical nurses (RNs) what APN-RN-patient bedside rounds are and how to use them on a daily basis.

Participants
You are being asked to participate in the study because you're an Advance Practice Nurse with knowledge and experience with APN-RN-patient bedside rounding.

Procedures
If you volunteer to participate in this study, you will be asked to do the following:
1. Review the one-hour learning module and provide feedback regarding clarity, accuracy and completeness of information.
2. I will be using your feedback to make further improvements to the learning module.

Benefits of Participation
There may be no direct benefit to you as a participant in this study. You may feel positively about helping to develop a process for rounding that may improve communication and collaboration among APNs and RNs providing care to patients. Your assistance will also help to assure a better learning module for APNs and RNs on this topic.

.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks.
It is possible that you may feel some discomfort with responding to one or more of the areas in the learning module. You are welcome o not comment on any area of the module that you do not wish to or to choose to leave the study at any time.

Cost /Compensation

There will be no financial cost to you to participate in this study. The study will take approximately 30-60 *minutes* of your time. You will not be compensated for your time.

Confidentiality
All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three (3) years after completion of the study. After the storage time the information gathered will be destroyed.

Voluntary Participation
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with Northwestern Memorial Hospital or UNLV. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Participant Consent:
I have read the above information and agree to participate in this study. I have been able to ask questions about the research study. I am at least 18 years of age. A copy of this form has been given to me.

_____   _____

Signature of Participant   Date

_____

Participant Name (Please Print)

Appendix D

Post Evaluation Instrument

After viewing this structure-learning module, please answer the following post-evaluation questions.

After viewing this learning module, please address the five basic elements in terms of completeness, accuracy and clarity.

1. **Communication**.
   Do you feel the description of communication was complete?
   Yes   No
   Please Elaborate_____

2. Do you feel the module described communication accurately?
   Yes   No
   Please Elaborate_____

3. The communication description was clearly understandable?
   Yes   No
   Please Elaborate_____

4. What would you include or remove to improve the presentation of Communication
   _____

5. **Collaboration**.
   Do you feel the description of collaboration was complete?
   Yes   No
   Please Elaborate_____

6. Do you feel the module described collaboration accurately?
   Yes   No
   Please Elaborate_____

7. The description of collaboration was clearly understandable?
   Yes   No
   Please Elaborate_____

8. What would you include or remove to improve the presentation of Collaboration?
   _____

9. **Critical Thinking**.
   Do you feel the description of critical thinking was complete?
   Yes   No
   Please Elaborate_____

10. Do you feel the module described critical thinking accurately?
    Yes   No
    Please Elaborate_____

11. The description critical thinking was clearly understandable?
    Yes   No
    Please Elaborate_____

12. Would you include the concept of critical thinking in this module?
    Yes   No
    Please Elaborate_____

13. What would you think should be include or remove to improve the presentation of critical thinking?
    _____

14. **Concept of APN-RN-Patient bedside Rounding**.
    Do you feel the description of APN-RN-Pt. rounding was complete?
    Yes   No
    Please Elaborate_____

15. Do you feel the module described APN-RN-Pt. rounding accurately?
    Yes   No
    Please Elaborate_____

16. The description of APN-RN-Pt. rounding was clearly understandable?
    Yes   No
    Please Elaborate_____

17. What would you include or remove to improve the presentation of APN-RN-Pt. rounding?
    _____

18. **Daily Goals Sheet**.
   Do you feel the description of daily goals sheet was complete?
   Yes   No
   Please Elaborate_____

19. Do you feel the module described the daily goals sheet accurately?
   Yes   No
   Please Elaborate_____

20. The description and proposed use of daily goals sheet was clearly understandable?
   Yes   No
   Please Elaborate_____

21. Would you include the use of daily goals sheet to implement this project?
   Yes   No
   Please Elaborate_____

22. What would you include or remove to improve the presentation of daily goals sheet?
   _____

23. Would you use this learning module on your unit to implement APN-RN-Patient bedside rounding?

   Yes   No

24. Please add any additional comments regarding improvement of this learning module.

Results

Communication	Do you feel the description of communication was complete?
#1	*Yes. The presenter clearly defined the purpose of the study, design, execution, and supporting evidence for implementing APN-RN bedside rounding to improve communication, care, and clinical reasoning among bedside RNs in the acute care setting. The presenter clearly defined the structure, timing, plan, and execution of improving communication with APN-RN bedside rounding with the rounding sheet and aforementioned definitions of communication.*
#2	*Yes. Addressed RN, APN communication. Definitions given for clarity*
#3	*Yes*

Communication	Do you feel the module described communication accurately?
#1	*Yes. The module and presenter accurately defined five forms of communication accurately and how utilizing the intraprofessional approach is the most effective tool for APN-RN communication to improve staff perceptions of communication so that care and outcomes may also be positively impacted.*
#2	*Yes. Non-verbal and verbal was discussed with definitions and examples. Also stats related to interpretation are good at driving home point.*
#3	*Yes*

Communication	The communication description was clearly understandable?
#1	*Yes. As aforementioned I feel the presenter accurately defined the five forms of communication and discussed appropriately how to execute effective intraprofessional communication between APN providers and bedside RN care providers.*
#2	*Yes. Language was to the point and clearly outlined*
#3	*Yes*

Communication	What would you include or remove to improve the presentation of Communication
#1	*Yes. I would only improve the presentation by making the rounding sheet larger so that visually it was easier for the audience to read. Otherwise, the content for presentation of communication was 100% spot on, perfect!*
#2	*None. Loved the slide #4 I think this language is often confused*
#3	*Yes. Consider examples of communication break down and styles of intraprofessional communication that interfere with understanding. i.e. subtle things that occur and sabotage communication*

Collaboration	Do you feel the description of collaboration was complete?
#1	*Yes. The module executed a plan for improving collaboration by even detailing appropriate timing of bedside rounds so that it was made feasible by both APNs, RNs, and patients. I feel this was outstanding to discuss because it was one of the greatest barriers to consistent execution of daily collaboration in the strenuous inpatient care setting.*
#2	*Yes. The "why" of the importance is clearly understood*
#3	*Yes, collaboration with the nursing staff is extremely important. Also with the described plan the patient feels we are all communicating.*

Collaboration	Do you feel the module described collaboration accurately?
#1	*Yes. Absolutely. As aforementioned, the module laid out a detailed plan for collaboration and discussed potential barriers. I feel this was accurate and realistic evaluation.*
#2	*Yes. I appreciated the research that discussed the importance in collaboration but also identified barriers. Room for improvement*
#3	*Yes. Sometimes I find that more seasoned experience nurses are resistant to collaborating with APNs especially if the APN is young and not as experienced as the staff nurse.*

Collaboration	The description of collaboration was clearly understandable?
#1	*Yes. I felt the content of collaboration and the actions that create collaboration were thoroughly discussed so that providers may apply them directly to their practice. Collaboration was clearly understandable.*
#2	*Yes. Described well is clinical value through EBP*
#3	*Yes*

Collaboration	What would you include or remove to improve the presentation of Collaboration?
#1	*Nothing, I feel that the combined descriptions of communication, collaboration barriers, and plans for overcoming barriers were astutely presented.*
#2	*None*
#3	* It would be helpful to have examples off basic skills and road blocks to collaboration*

Critical Thinking	Do you feel the description of critical thinking was complete?
#1	*Yes. The value of APN-RN discussion of patient care goals for the day and rationales were highlighted for improving clinical reasoning and fostering critical thinking in the bedside RN. I could not agree more with this module. The topic of critical thinking was completely and clearly discussed with the rounding sheet and discussion outlines presented to illustrate detailed action/discussion topics to stimulate both the APN and RN at the bedside rounds as a guide.*
#2	*Yes. Discussed higher education and developed CR and how to use the rounding to aid in development.*
#3	*Yes*

Critical Thinking	Do you feel the module described critical thinking accurately?
#1	*Yes. As aforementioned, the module defined and described critical thinking and the value that intraprofessional communication adds to development of clinical reasoning skills from both APN providers and bedside RN.*
#2	*Yes. Like that it is called clinical reasoning. The importance of sentinel events through CR is important and loops back with communication and collaboration.*
#3	*Confusing that it is called clinical reasoning not critical thinking*

Critical Thinking	The description critical thinking was clearly understandable?
#1	*Yes*
#2	*Yes*
#3	*Yes*

Critical Thinking	Would you include the concept of critical thinking in this module?
#1	*Yes, I feel that it is vital to the discussion of how APN-RN bedside rounds would positively impact patient outcomes and clinical reasoning and care planning for the bedside RN to help them prioritize patient care in complex patient cases. Also, the development of critical thinking improves the RN's commitment and stimulation at the bedside from the APN which will positively improve their perception of communication for example, if the APN explains rationale for a test or a sterile specimen collection the RN is more likely to accurately prioritize the care with understanding of the APN's rationale.*
#2	*Yes. Loved how this section looked at developing novice RNs through knowledge. In the moment teaching is important and this rounding allows for it.*
#3	*Yes. I especially feel the concept is very important when it comes to novice nurses. I feel they can learn so much from these4 rounds. I also feel they are often not comfortable asking APNs questions because they don't want to feel like they do not know what is going on*

Critical Thinking	What would you think should be include or remove to improve the presentation of critical thinking?
#1	*I felt the presentation of critical thinking was very thorough and requires no action at this time unless new research develops that may be included on this topic.*
#2	*None*
#3	*"Failure to rescue" was confusing definition, examples would be useful*

Concept of APN-RN-Patient bedside Rounding	Do you feel the description of APN-RN-Pt. rounding was complete?
#1	*Yes. It was extremely thorough and provided appropriate tools to structure the rounds.*
#2	*Yes. Clearly defined and goal driven. This allows for successful understanding of purpose.*
#3	*Yes. The main issues would be discussed and the list would have to be "cut down" a little. There are too many things to discuss while the nurse is trying to give report to oncoming nurse, and the APN is trying to examine the patient.*

Concept of APN-RN-Patient bedside Rounding	Do you feel the module described APN-RN-Pt. rounding accurately?
#1	*Yes*
#2	*Yes. Goals and rounding slide #22 clearly shows checklist of topics.*
#3	*Yes*

Concept of APN-RN-Patient bedside Rounding	The description of APN-RN-Pt. rounding was clearly understandable?
#1	*Yes*
#2	*Yes*
#3	*Yes*

Concept of APN-RN-Patient bedside Rounding	What would you include or remove to improve the presentation of APN-RN-Pt. rounding?
#1	*Nothing. I felt that the presentation was thorough with appropriate references, structure, content, and guidance for the APN to implement on their unit.*
#2	*N/A. Loved the scenario!!*
#3	*Presentation was good! Consider adding family/significant other involvement whenever possible – even via phone if possible. Especially with patients who are less capable of managing own care / decision*

Daily Goals Sheet	Do you feel the description of daily goals sheet was complete?
#1	*Yes*
#2	*Yes. Clearly defined in checklist format.*
#3	*Yes*

Daily Goals Sheet	Do you feel the module described the daily goals sheet accurately?
#1	*Yes*
#2	*Yes. Clearly drives communication and collaboration through a standardized format.*
#3	*Yes*

Daily Goals Sheet	The description and proposed use of daily goals sheet was clearly understandable?
#1	*Yes. It was very clear and provided a thorough template to structure discussion of care and goals.*
#2	*Yes. For both novice and seasoned RNs.*
#3	*Yes*

Daily Goals Sheet	Would you include the use of daily goals sheet to implement this project?
#1	*YES! This helps to drive detailed discussion structure for rounds so that they are more thorough and efficient without topics missed. This tool is invaluable for the collaboration and structure of communication.*
#2	*Yes. Absolutely*
#3	*Yes*

Daily Goals Sheet	What would you include or remove to improve the presentation of daily goals sheet?
#1	*I would only add or adjust specialty area goals. For example, in the ICU monitoring parameters, goals for drip titration, etc..*
#2	*I would try to minimize some of the goals on the rounding sheet. If it is used on a busy service it will not be able to cover all of the goals on every patient.*
#3	*As above, would consider adding family involvement. "who's who" to the patient discussion during rounds*

	Would you use this learning module on your unit to implement APN-RN-Patient bedside rounding?
#1	*Yes. Especially the Rounding sheet. It would also be applicable in settings with PAs and MDs to improve interdisciplinary care rounds.*
#2	*Yes*
#3	*N/A*

	Please add any additional comments regarding improvement of this learning module.
#1	*None at this time.*
#2	*Love this project. A process that includes the team at the bedside with the patient is only going to improve patient outcomes. It also an opportunity to develop nursing practice!*
#3	*I think this is a great project. I don't know if the timing would work out with some services, but love the concept. I feel the patients would feel more comfortable and would feel like the staff was more involved I their care*

Appendix F

Power Point Presentation-Learning Module

Intraprofessional Communication & Collaboration: APN-RN-Patient Bedside Rounding

Rita Herm-Barabasz, RN, MSN, ACNP-BC

Purpose

- The mission and goal of this project is to improve communication and collaboration between the intraprofessional team of advance practice nurses (APN) and staff nurses (RN) through the implementation of daily APN-RN-patient bedside rounding.

According to the Institute of Medicine (IOM) between 44,000 to 98,000 people die every

year in U.S. hospitals due to medical errors. A significant body of research shows

that communication failures are the major contributor to these adverse events in

health care. The health care system is experiencing rising costs of services,

shortages of human resources (lack of enough employees) and growing in

complexity facilitating the emergence of new collaborative models in health care.

Contemporary practice environments are dynamic, unpredictable and reactive.

Increasing numbers of adverse patient outcomes are evident. Hospitals have a

growing proportion of patients with complex health problems were more likely to

be or become seriously ill during their admission. Bedside reports are viewed as

an opportunity to reduce errors and ensure communication between nurses.

Models of nursing bedside reporting, incorporating the patient into the triad has

been shown to increase patient engagement, enhance caregiver support and further education.

This study proposes a structured routine with bedside rounding, the team will comprise of the APN, clinical staff nurse, patient, and the patient's family (if present). Therefore, this project aims to improve communication and collaboration with daily bedside rounding and the use of a daily goals reminder sheet to ensure consistency and inclusion of all elements of the patient's treatment plan and goals.

As part of a Doctoral Nursing Program (DNP) an hour long structured learning module was developed to assist APNs and clinical nurses in improvement of intraprofessional collaboration and communication that will be the basis of a new bedside rounding model.

The Objective of this module is to improve staff perceptions of communication and

collaboration between advance practice nurses and clinical nurses through the use

of an innovative APN-RN-patient bedside rounding procedure.

To begin this module, some terms need to defined and understood.

The terms multidisciplinary, interdisciplinary, trans-disciplinary, interprofessional and

intraprofessional are often used interchangeably, yet these terms are distinctly

different

A discipline is a field of study with training to act in accordance with established rules.

A profession is a collective body of people with a specialized knowledge that often

requires long and intensive preparation.

"**Intra"** usually refers to two within

"**Inter"** usually refers to two different

"Multi" usually represents three or more.

Transdisciplinary:

- Refers to members of different disciplines using a shared conceptual framework
  coming together with common theories, concepts, and approaches.

Interdisciplinary:

- Refers to disciplines working alongside or parallel on collective action and process orientation.

- Interdisciplinary practice is a response to the fragmented knowledge from numerous disciplines, pooling their approaches and modifying them to accommodate the current problem

Interprofessional:

- Collaboration is found specifically in the health care setting and is defined as health care professionals coming together as a cohesive team with a common purpose, commitment, and mutual respect.

- Is a partnership between health care providers and the patient to collaborate and coordinate an approach to shared decision making around health care issues.

- No person in this team is more important than another.

Intraprofessional:

- Is very similar to interprofessional with the exception that members of the team are from the same profession. In this instance APNs and clinical staff nurses are from the same profession but have distinctively different roles in patient care. Together they make an intraprofessional team

Why do we need to change

○ Communication failures are the major contributor to adverse events in healthcare

○ Poor communication and teamwork failures are the most reported Sentinel events in the acute care setting

○ Communication failures cost up to $17 billion

High quality patient care is safe, effective, patient-centered, timely and efficient.

Effective communication is essential in providing safe and effective care. A

significant body of research shows that communication failures are the major

contributor to these adverse events in health care. Poor communication and

teamwork failures are the basis of most reported sentinel events in acute care

settings. These communication failures cost up to $17 billion to the U.S.

economy as a whole.

The Accreditation Counsel for Graduate Medical Education (ACGME) initiated national

mandates limiting residents to 80 hours of duty per week. With the loss of

resident physician availability, many health systems have employed Advance

Practice Nurses to fill the gap in the demand of patient care. In a health care

environment that is increasingly relying on APNs to direct patient care, it's

imperative that the environment fosters improved communication and collaboration to deliver quality patient care.

There is an extensive body of literature analyzing physician–patient as well as nurse–patient communication styles in determining those that are most effective when dealing with patients. There is also an extensive body of literature analyzing physician–nurse communication styles. Unfortunately, there is a lack of research analyzing APN-patient or APN–RN communication. This is likely the premise because APN's are nurses; they must be well grounded in communication skills. However, with the change to the APN role the relationship between APNs and the patient is different from the relationship of the RN to the patient. APN's are in a gray area that lies between the RN and physician. Therefore, the dynamics of the APN–patient and APN–RN relationships are different.

Communication is a process that should lead to an outcome and more research focusing on this process between APN's and patients and APN and RN's needs to be established.

Despite the growing evidence that greater communication and collaboration among health care professionals improves patient care, many hospitals continue to conduct independent physician/APN patient rounding separately from staff nursing rounds.

Nursing have moved shift handoffs to bedside, with positive results, one can

hypothesize that merging APN morning rounds with nursing at the bedside should

produce similar results.

Evidence supports that breakdowns in communication and occurrences medical errors

    occur during patient handoffs. Bedside shift report is an opportunity to reduce

    these errors and ensure improve communication between clinical nurses. Bedside

    shift report also supports communication and engagement of patients and their

    family caregivers. Moving shift report to the bedside has additional benefits

    including nurse empowerment, patient centeredness, patient satisfaction and

    increase communication.

Many hospitals already employ bedside shift reports for clinical staff nurses. Initiating

    advanced practice nursing – clinical nurses bedside rounding will further increase

    communication between staff, increase patient centeredness and satisfaction as

    well as establishing an opportunity for APN's to teach and foster novice clinical

    nurses.

Relationship between Bedside Handoffs and Goal to Improve Patient Satisfaction

The driver diagram was developed [by D.S.W., R.R.] for the pilot study to display the hypothesized effect of bedside shift reports on patient satisfaction. Wakefield, D., Ragan, R., Brandt, J., & Tregnago, M. (2012). Making the Transition to Nursing Bedside Shift Reports. The Joint Commission Journal on Quality and Patient Safety. 38(6) 243-253.

Moving clinical shift report to the bedside has demonstrated marked improvement in

perceived staff caring, staff-staff and staff-patient communications, staff

responsiveness, staff quality and technical quality of care.

Merging APN morning rounds with clinical nursing rounds at the bedside should further

enhance staff communication, collaboration and ultimately improve patient

satisfaction drivers.

Communication is the activity of conveying information through the exchange of ideas,

feeling intentions, attitudes & expectations through speech, non-verbal gestures

and behaviors. It is the cornerstone of clinical decision making in the

contemporary health care environment.

Patient centered care is care based on a partnership between a patient, their families and

healthcare providers that is focused on the patient's values, preferences and needs.

Effective communication between the patient and the healthcare providers is an essential

requirement for patient centered care. Good communication result in more

positive patient outcomes, higher satisfaction, and lower hospital readmission

rates.

Core nursing competencies for effective communication

- Use of clear concise and effective written, electronic & verbal communication
- Understands visual, auditory & tactile communication
- Impact of ones' own communication style on others
- Understand own role & responsibility in applying principles of active listening
- Asses patients ability & readiness to communicate
- Assess barriers to communication
- Makes appropriate adaptations in own communication
- Provide opportunity to ask and respond to questions

Effective communication is the creation of meaning in communication, in which patients and healthcare providers exchange information so that patients are able to actively participate in their care.

The communication involves a two-way process of expressive and receptive communication, so that the message and responsibilities of both the patient and the healthcare provider is understood.

Therapeutic communication is mutually respectful communication and has a health related purpose.

Examples of nursing core competencies for effective, appropriate and therapeutic communication of knowledge and skills are:

- Use of clear concise and effective written, electronic & verbal communication

- Understands visual, auditory & tactile communication

- Impact of ones' own communication style on others

- Understand own role & responsibility in applying principles of active listening

- Assess patient's ability & readiness to communicate

- Ability to assess and correct barriers to communication

- Makes appropriate adaptations in own communication

- Provide opportunity to ask and respond to questions

Communication in nursing is defined as a complex process of sending and receiving

verbal and nonverbal messages. This allows exchange for information, feelings,

needs and preferences.

The goal of shared meaning is the mutual understanding of the meaning of the message.

This includes feedback and response indicators if the meaning of the message was

communicated as intended.

Levels of communication include social, which is considered safe communication;

structured, which is referred to as interviewing for teaching and finally therapeutic

which is patient focused, purposeful and time-limited. Through therapeutic

communication nurses begin to know the patient as a unique individual and the

patient in-turn comes to trust the nurse.

Types of communication include verbal and non-verbal. Verbal communication is the

concise use of spoken or written word. Characteristics of concise verbal

communication include simple, brief, clear, well timed, relevant, adaptable and

credible.
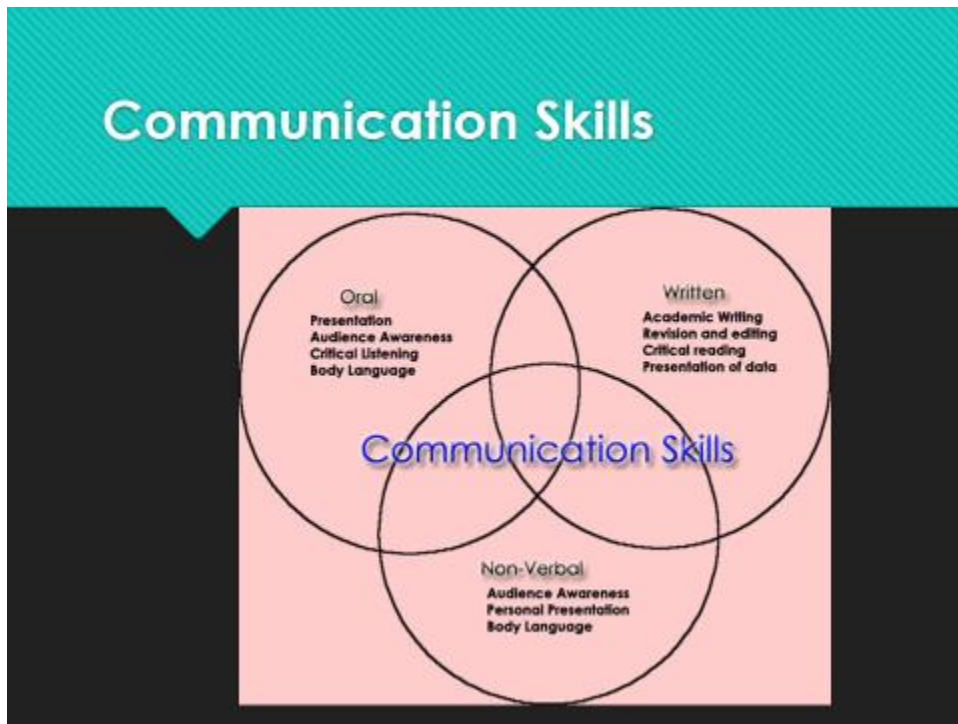
There are many types of communication including oral, written and non-verbal. To be

proficient in communication, a person must first have good listening skills. Sharing

information with someone can be difficult if the receiver of the information doesn't look

interested. Being a good listener and putting in an effort and time are essential in a

nurse's role (Grover, 2005).

Non-Verbal Communication/ Body Language
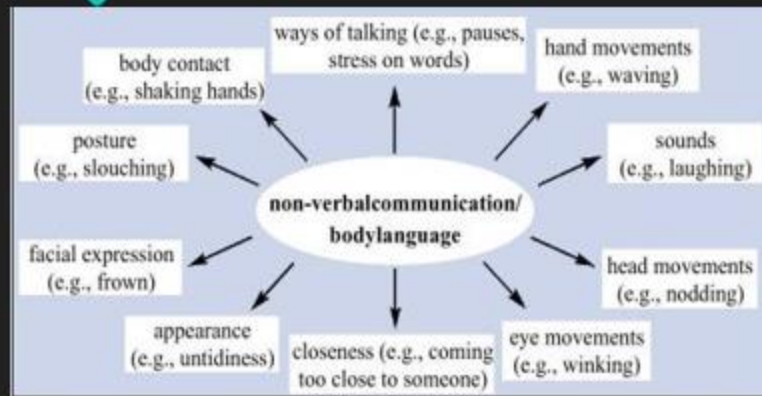
ways of talking (e.g., pauses, stress on words)

body contact (e.g., shaking hands)

hand movements (e.g., waving)

posture (e.g., slouching)

sounds (e.g., laughing)

non-verbalcommunication/ bodylanguage

facial expression (e.g., frown)

head movements (e.g., nodding)

appearance (e.g., untidiness)

closeness (e.g., coming too close to someone)

eye movements (e.g., winking)

85% of communication is actually nonverbal, which includes the use of gestures, expressions and behaviors (body language). Nonverbal communication is less concise than verbal, and it requires a systematic observation and valid interpretation of what is communicated.

There are many variables in nonverbal communication. They include ways of talking, hand movements, sounds, head movements, eye movements, closeness, appearance, facial expressions, posture and body contact. It is extremely important that verbal and nonverbal messages are consistent and congruent.

Nurses need to assess and consider when communicating with patient; their culture, developmental level, physical and psychological barriers, personal space, roles and relationships, environment, attitudes and values of self-esteem.

Barriers ot Communication

O Communication Barriers Prevent sending and receiving messages, causing communication to be limited or fail completely

Barriers to communication
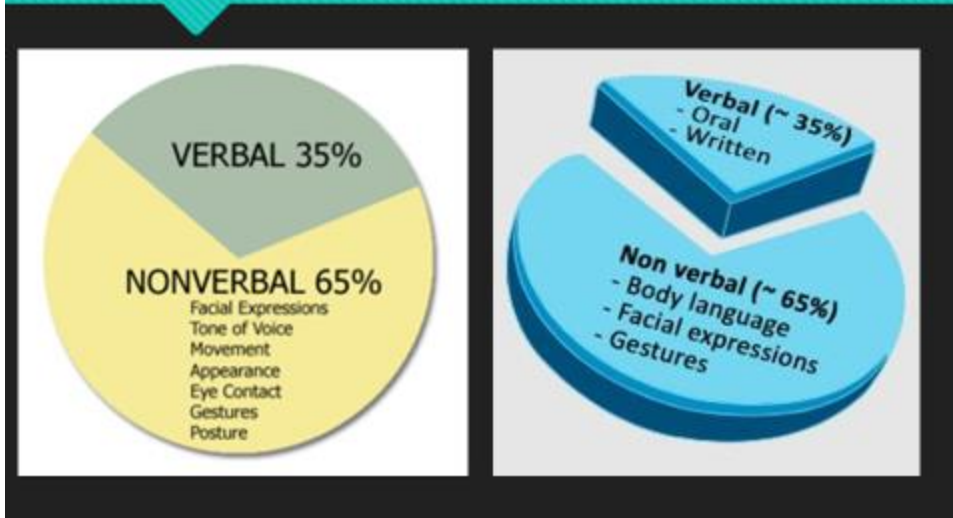
Verbal communication makes up only 35% of all communication.

**Physical Barriers include Noise, physical separation, time and distance

**Language Barriers –oral or written include dialects, technical terms, acronyms,

semantic barriers, ambiguity of words, grammar and punctuation

Non-verbal communication barriers include proxemics, kinesics, facial and eye behavior

and paralanguage

**Socio-Psychological barriers include gender & age differences, attitudes & values,

cultural differences and inference.
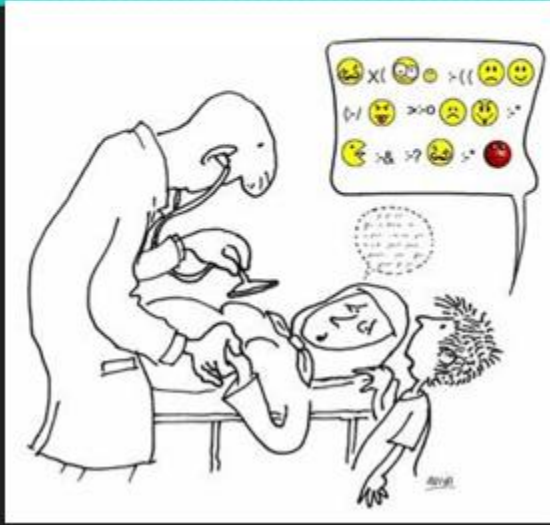
For communication to be effective, the receiver must be able to interpret the message

accurately.

Conflict Resolution

- Understand
- Educate
- Perform
- Ask
- Be prepared
- Round
- Remind
- Advocate
- Take personal responsibility
- Connect
- Acknowledge

One cannot understand good communication without addressing conflict resolution.

Although you can spend an entire hour on this subject it is important to understand that opportunities for improving communication pop up every day. Addressing the conflict is paramount for good communication:

1. Understand the difference in your role that may cause confusion. Reinforce your role in patient care.

2. Education is the key to gaining knowledge and respect.

3. Perform a root cause analysis whenever there is an unplanned outcome and include both APNs and nurses on the team.

4. Ask for what you want. If you feel strongly that an APN needs to see a patient, say so.

5. Be prepared for telephone calls by having labs or recent vitals in hand, if there's a change in patient status.

6. Round with the APN whenever possible. There is no better way to learn about what the

   APN is looking for, to clarify the nurse's role, and offer input and advocate for the

   patient.

7. Remind coworkers and APNs that everyone is on the same team.

8. Advocate for the patient. Keep the patient as the main focus of conversations.

9. Take personal responsibility for working out any negative relationships that you may

   have with the RN or APN. Raising awareness of the problem and maintaining

   boundaries in this way is critical.

10. Connect with coworkers first. Promote a sense of being, by forming a community of

    people who genuinely care about each other. Realize that nurses must have

    solidarity in order to raise their self-esteem. Connect with team members on a

    human level. The work environment is a product of your relationships.

11. Acknowledge positive behavior and relationships. This doesn't happen enough in

    work relationships!

Conflict Resolution

O How would you handle a situation?

   OThe APN walking into a patients room, clearly irritated that she was called, belittles the nurse in front of the patient.

This question should be posed to the group as a whole for feedback.

Collaboration refers to the idea of sharing and implies collective action toward a common

goal, in the spirit of harmony and trust. In health care, professionals are socialized

to adopt a relationship with patients based on each professional's discipline.

Collaboration refers to working with one another in a partnership with shared

power, recognition and acceptance of separate and combined practice spheres of

activity responsibility, mutual safeguarding and commonality of goals.

Collaborative nurse-physician communication is identified as one of the attributes of

Magnet status hospitals. Collaboration and communication is an expectation of

all nurses and APN's spend much of their time partnering with staff nurses to

provide patient care.

Patient centered care places the patient at the center of care and consists of a

comprehensive, collaborative, responsive and therapeutic alliance between health

care providers and the patient to find strategies to tailor treatments consistent with

the patient's needs and preferences. Patient centered bedside inpatient rounding gives the staffs a real-time opportunity to understand and clarify issues and patient care, hence improving the nurse's perception as a team member and job satisfaction and workflow.

During these collaborative rounds the APN, nurse and patient can discuss the patient's condition and mutually formulate a care plan for the day. Lack of awareness of the patients care plan leads to confusion, frustration and barriers to quality patient care.

Collaboration-research

O 2012 APN-RN collaboration study findings:
  O Together time fosters collaboration
  O Basic Skills: The brickworks of collaboration
  O Road Blocks: Obstacles to collaboration
  O Nurses attitudes toward their collaborative work

Moore, J. & Prentice, D. (2013). Collaboration among nurse practitioners and registered nurses in outpatient oncology settings in Canada. *Journal of Advanced Nursing*. 69(7). 1574-1583.

As stated earlier, there are very few APR –RN collaboration studies. One of the few

studies was done in 2010-2012 in outpatient oncology settings at one hospital in

Ontario, Canada. This study explored and describes the collaborative process

between APN's and RNs working in an outpatient setting.

The findings suggest the intraprofessional collaboration among nurses is a

complex and multifaceted process that does not occur spontaneously nurses seem

to have a solid understanding of theoretical concepts of collaboration. They

appeared unsure of how to enact collaboration in a clinical setting.

 Their findings included:

1. Together time fosters collaboration; the nurses in the study said that their relationship

developed by regularly spending time together both on and off the clinical unit

where they shared common interest, personal or professional stories played an

important role in the development and maintenance of a collaborative

relationship.

2. Basic skills, the brickworks of collaboration: this study found that basic skills must be

present for collaboration to be successful. One skill is with having clinical

knowledge and expertise specific to the specialty and subspecialty in question.

3. Roadblocks, obstacles to collaboration: related to factors that discouraged APN's and

RNs to collaborate. One factor that discouraged collaboration was the lack of

formal education relating to collaboration among nurses. Although most appeared

to have a solid conceptual understanding of the meaning of collaboration, they

acknowledge that there were problems with an acting collaboration in a practice

setting. Preceptors and mentors are in the best position to roll model collaborative

practice.

4. Nurses attitude towards collaborative work. Although the APN's and RNs related that

they viewed their collaboration as a means to achieve positive results, they acknowledge

that when factors were present that discouraged collaboration the same outcomes would

be negatively affected.

Clinical Reasoning (CR) Skills or Critical Thinking (CT)

○ An inferential process used by practitioners to collect and evaluate data and to make judgments about diagnosis and management of patient problems

APN's have a minimum of a master's degree and many now are obtaining DNP's. Part of having a higher education as a nurse, is a responsibility for educating the novice or new nurses. APN – RN rounding, is an opportunity for the APN to teach and help the novice nurse grow.

Clinical reasoning is defined as an inferential process used by practitioners to collect and evaluate data and to make judgments about the diagnosis and management of patient problems. Reasoning is a process that pertains to the thought processes, organization of ideas and exploration of experiences to reach a conclusion. This process involves both metacognition (reflective thinking) and cognition (thinking).

Clinical reasoning is thought of as an innate feature of nursing that may impact on the provision of carefully planned and executed nursing care. It is composed of intuition, as well as specific knowledge and expertise. Each of these components

enhance the quality of care provided to patients using the process that involves

applying knowledge and expertise to clinical situations develop a solution.

Failure to rescue is defined as mortality of patients who experience a hospital acquired

complication directly related to the quality of nursing care and nurses, CR skills.

The top three reasons for adverse patient outcomes. Failure to properly diagnose,

failure to institute appropriate treatment and inappropriate management of

complications are related to poor CR skills

Clinical Reasoning (CR) Skills or Critical Thinking (CT)

- O CR is simulation and analysis of health care
- O The objective is to predict possible outcomes
- O Bedside rounding gives the APN an opportunity to foster CR skills in the novice nurses

Clinical reasoning is an essential feature of healthcare practice that focuses on the

simulation and analysis of healthcare. Evidence is differentiated according to its

usefulness. During this process decisions are made pertaining to patient

management. Clinical reasoning is a hallmark of the expert nurse.

The novice nurse practices are reactive, searching for patient cues in information once

they have actually identified a patient problem. The expert nurse tend to relate

more cues together than the novice nurses and are better able to predict what may

happen to a patient. The expert nurse practices more proactively, collecting a wide

range of cues to identify and prevent possible patient complications.

Learning to reason effectively does not happen serendipitously, nor does it occur just

through observation of the expert nursing practice. It requires active engagement

in deliberate practice as well as a reflection and activities designed to improve

performance.

An important feature of APN's rounding at the bedside with clinical nurses is an

opportunity for the advanced practice "expert" nurse to teach and guide the

inexperience nurse.

Barriers to Success

- Too little information
- Too much information
- Inconsistent quality
- Limited opportunity to ask questions
- Interruptions

During any nursing handoffs or bedside rounding, communication errors can lead to
adverse events and suboptimal patient care. The main goal for a report is to be
effective communication between members intended essential information for
safe holistic care of the patients. 5 common barriers that can impede good
communication are;

1. Too little information. This barrier represents instances in which the staff has too little
information or unaware of current changes.

2. Too much information. Too much information reflected a tendency towards lengthy
reports and included unnecessary or irrelevant information for patient care.

3. Inconsistent quality. Quality of report varies with any person giving it. This variability
represents inconsistency in report content with some nurses providing complete
relevant reports, whereas others omit relevant data or provide irrelevant
information.

4. Limited opportunity to ask questions. If one staff member, such as the clinical nurse is

     unavailable for questions the patient and APN may not be able to ask if specific

     things had already been done or were ordered.

5. Interruptions. Often times, staff is simultaneously caring for patients during reports.

     Immediate needs to attend to other patients or other staff, interrupting with report

     can impede quality.

Most of these barriers can be addressed by the development of a daily goals sheet to

     provide the appropriate information, consistently and concisely.

APN-RN-Patient Bedside Rounding- the basics

- What is it?
  - Every morning we will be implementing APN-RN-Pt. bedside rounding
    - Discuss patients current condition, including any complaints or changes
    - Any procedure or tests scheduled for the day
    - Discuss any concerns from APN, RN or patient
    - Review any questions

NP-RN-Patient Bedside Rounding

- How are we going to do it?

  - Timing of rounds—prior to the morning interdisciplinary table rounds

DAILY INTRAPROFESSIONAL (APN-RN) GOALS / ROUNDING SHEET

- Patients Goals of Discharge
- Nursing / Patient concerns
- Safety and Quality of Care
  - Fall risk/prevention
  - Aspiration risk/preventions
  - Pressure ulcer risk/preventions
  - CAUTI risk/preventions
  - CLABSI risk/preventions
  - Surgical site infection risk/prevention
  - Delirium risk/preventions
  - Pain assessment/treatment/documentation
  - Patient/family satisfaction

- Daily goals :
  - Fluid status
  - Diet
  - Physical Activity
  - Pain issues
  - Wounds / Drains
  - Scheduled procedures
  - Referrals
  - Physical / Occupational therapy
- Determine a worst case scenario—Any possible complications to watch for
- What is keeping the patient from being discharged?
- Anticipated discharge date
  - Social Worker needs
  - Homecare needs
  - Any prescriptions needed for discharge

Studies of shown that 25% of nurses find the value of having a checklist of content to be

utilized in an end of shift report.

To this end, an APN -RN patient daily goals/rounding sheet has been developed. An

appropriate checklist includes content deemed relevant by its users and in this

case forces the participants to consistently review the same identified components

or issues. This framework was developed to help the APN and RN, to organize

clinical information before communicating. This reduces content omissions, and

lengthy or disorganized reports.

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APN-RN-Patient Bedside Rounding

- This is the time to:
  - Ask the patient how they are feeling and if they have any concerns
  - Discuss any procedures or tests occurring today
  - Clinical nurse to voice any concerns
  - APN to voice any concerns
  - Review any questions
  - Discharge planning
  - Develop an idea of worst case scenario– what complications to watch for

Patient Simulation-scenario

- Participants will be divided into groups of 3 to simulate APN, RN and patient
- Participants will be provided with a "scenario" as noted on the next slide.
- Participants will have time to go through a Moring rounding session utilizing the daily goals sheet

Patient Simulation-scenario

O Pertinent Patient Information
  - O 75 y.o. male with hx. of HTN, 2 ppd smoker for >40 years, DM, CRI, BLE intermittent claudication, RLE chronic limb ischemia with ulceration to right great toe.
  - O The patient is angry he was admitted and very demanding, wanting everything done today. He doesn't want to spend any extra time in the hospital
  - O As part of his w/u the patient will need:
    - O CTA of abdomen/pelvis with bilateral lower extremity run off
    - O Arterial flow studies and vein mapping (Vascular Lab)
    - O Wound care
    - O CXR
    - O Consult Perioperative Medicine for surgical clearance
  - O Abnormal morning labs include
    - O K+ 3.2; Magnesium 1.6

Post Simulation-scenario critique

- O How did the APN and nurse handle the patients attitude? Did the team find out what he was really upset about?
- O Did the APN and nurse uncover any new medical information from the time with the patient?
- O Did the triad team come to a consensus of plans for the day?
- O When finished did everyone on the triad team feel that all questions where answered and agreeable?
- O What did you learn form this scenario?

APN-RN-Patient Bedside Rounding—Take home message

O Why are we doing it?

- O To improve communication between patient and staff
- O To improve communication and collaboration between staff members
- O To enhance patient centered care

APN-RN-Patient Bedside Rounding—Take home message

O Benefits

- O Nursing staff are better informed about the daily plan of care
- O The Nurse hears what the APN is telling the patient
- O Calls or pages throughout the day will decrease
- O Time consuming rounding in the morning will pay off with increased efficiency the rest of the day

APN-RN-Patient Bedside Rounding—Take home message

- Benefits
  - Improvement of patient satisfaction scores
  - Enhance staff satisfaction
  - Improve staff retention

APN-RN-Patient Bedside Rounding

- Any Questions??

- Thank you

IRB Approval

UNLV

Biomedical IRB – Exempt
Review Deemed
Exempt

DATE: January 21, 2015

TO: **Dr. Lori Candela,** School of

Nursing **FROM:**   Office of Research

Integrity – Human Subjects **RE:**

       Notification of IRB Action
       Protocol Title: Intraprofessional Nursing Communication and
       Collaboration: APN-RN Patient Bedside Rounding

       Protocol # 1501-5052M

This memorandum is notification that the project referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

PLEASE NOTE:
Upon Approval, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI – HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official   versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this project to require a different level of IRB review.

Should any changes need to be made, please submit a **Modification Form**. When the above-referenced project has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI – HS of its closure.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 702-895-2794

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Wu, R., Lo, V., Rossos, P., Kuziemsky, C., O'Leary. K., Cafazzo, J., Reeves, S., . . .
Morra, D. (2012). Improving hospital care and collaborative communications for
the 21st century: Key recommendations for general internal medicine. *Interactive
Journal of Medical Research, 1*(2), e9.

CURRICULUM VITAE

PERSONAL DATA

Home Address: 6245 North Keystone
                                                   Chicago, IL 60646
                                                   Phone: (773) 545-5850
                                                   Cell: (773)456-1396

Business Address: Northwestern Memorial Hospital
(Surgical Patient Care)   251 East Huron St. Feinberg Pavilion
4-508   Chicago, IL 60611
                                                   Office (312) 926-4477

E-mail: rhermbar@NMH.org

Birth: January 13, 1961

EDUCATION

University of Nevada, Las Vegas   2012- current
School of Nursing   Doctor of Nursing Practice
Las Vegas, NV

University of Illinois   2002, Acute Care Nurse Practitioner
College of Nursing   Post-Master's Degree Certification
Chicago, IL

DePaul University
Chicago, IL   1995, MS, Nursing education
emphasis

DePaul University
Chicago, IL   1987, BS, Nursing emphasis

Illinois Masonic Medical Center
School of Nursing
Chicago, IL   1983, Diploma in Nursing

TEACHING EXPERIENCE

Faculty
DePaul University
Department of Nursing
Chicago, IL   1997 - 1999

Adjunct Faculty
Triton College, School of Nursing
River Grove, IL   1995-1996

WORK EXPERIENCE

Northwestern Memorial Hospital   March 2008-present
Vascular Surgery
Position: Acute Care Nurse Practitioner

Resurrection Medical Center   October 2007-Feb. 2008
Dr. Arun Ohri, MD
Position: Acute Care Nurse Practitioner

Northwestern Memorial Hospital   December 2002 – October 2007
Dr. Willis Parsons, MD, PC
Position: Acute Care Nurse Practitioner

University of Illinois at Chicago
Department of Medicine
Section of Digestive and Liver Diseases
Position: Biliary Nurse Specialist   September 2001 to December 2002
Position: Clinical Research Coordinator   April 1997 to September 2001

Ultra Care Home Medical
Chicago, IL
Position: Nursing Case Manager   May 1994-February 1997

University of Chicago
Emergency Services
Chicago, IL
Position: Staff Nurse   July 1991-May 1994

Froelich and Associates, Inc.
Chicago, IL
Position: Associate Staff Nurse   October 1989-May 1994

Martha Washington Hospital
Chicago, IL

Position: Manager of Emergency Services   May 1989-December 1989

Illinois Masonic Medical Center
Chicago, IL
Positions: Admitting Nurse Coordinator
                 Emergency Services Staff Nurse
                 Critical Care Staff Nurse   October 1983-May 1989

LICENSURE

Illinois #041-222884   1984 to current
Illinois, APN #309-002074   2003 to current
Illinois, APN, controlled substance   #209-004803   2003 to current
DEA, controlled substance certification   2003 to current

PROFESSIONAL ORGANIZATIONS

Midwestern Vascular Society   2010 to present

Society of Vascular Nursing   2008 to present

Chicago Society of Gastroenterology   1997 to 2008

Society of Gastroenterology Nurses   1997 to 2008

Sigma Theta Tau, Zeta Sigma Chapter
International Honor Society of Nursing   1995 to present

Sigma Theta Tau
Chapter, Vice President   1997-1999

CERTIFICATIONS

Small Bowel Video Capsule Endoscopy   November 2005

Acute Care Nurse Practitioner (ANCC)   July 1, 2003
        Board Certification

Chemotherapy Administration   1996

PICC Line   1995 / recertification 2002
Basic, Pre-hospital Trauma Life Support
Provider/Instructor   1988-1996

| Hyperbaric Medicine | 1988 |
| | |

| Mobile Intensive Care Provider/Instructor | 1987-1996 |

| Advanced Cardiac Life Support Provider/Instructor | 1986-present |

| CPR | Since 1982 |

COMMITTEES

| Northwestern Memorial Hospital Advance Practice Advisory Committee | 2012 to present |

| Northwestern Memorial Hospital Clinical Quality Committee | 2010 to present |

| Chicago Healthcare Council Emergency Medical Services Council of Chicago | 1989 |

| Mass Casualty/Disaster Committee Illinois Masonic Medical Center | 1986-1989 |

| Emergency Department Quality Assurance Illinois Masonic Medical Center | 1987-1988, Chairperson |

| First Annual Critical Care Conference | 1986 |

PROFESSIONAL SERVICES

2000 Two Week Medical Mission to Zimbabwe, Africa. The clinic found in a rural area averaged 250 patients seen per day.

2009-present Co-Program Director for the Annual Vascular Nursing Conference. Conference includes a full day, CEU provided, vascular lectures. As a program director I am responsible for lining up lecturers and content as well as obtaining Continuing Education Units. All coordinators/directors also give a presentation

PROFESSIONAL PRESENTATIONS

28th Annual Vascular Nursing
Coordinator of Meeting 11/2014

27th Annual Vascular Nursing
Coordinator of Meeting 10/2013

26th Annual Vascular Nursing
Coordinator of Meeting 10/2012

25th Annual Vascular Nursing
Coordinator of Meeting 10/2011

HIT
Multi unit In-services 2010/2013

24rd Annual Vascular Nursing
Coordinator/presenter of Meeting 10/2010

Pulmonary Hygiene, Hospital Acquired Pneumonia in the Post-op Patient
23rd Annual Vascular Nursing Conference 10/2010

23rd Annual Vascular Nursing
Coordinator/Presenter of Meeting 10/2009

Thoracic Outlet Syndrome
23rd Annual Vascular Nursing Conference 10/2009

Pancreaticobiliary Disease in Everyday Practice
NPACE Conference October 2004

Colon Cancer and the Use of NSAIDs and COX-2 Inhibitors
Chicago SGNA Quarterly Meeting, 4/2000
Sponsor and Coordinator of meeting

Nursing Research Conference: *Research into Practice; Issues, Approaches Outcomes*
Two Open-Label Efficacy Trials of Ranitidine Bismuth Citrate in Combination with Clarithromysin and Amoxicillin or Metronidazole for *H. pylori* Eradication. Poster Presentation 2/2000
Mayo Clinic Rochester, Minnesota

Case Management in Home Care; Past, Present and Future
Governors State University, Sigma Theta Tau, 4/1998

COMPLETED RESEARCH

Multicenter Prospective Randomized Controlled Trial of the Nitinol ZILVER Expandable Endoprosthesis in the Palliation of Extrahepatic Malignant Biliary Obstruction (MOZART I)

G.D. Searle and Company. Double-Blind, Placebo Controlled Randomized Comparison Study of the Efficacy and Upper Gastrointestinal Safety of 50 mg, 100 mg, and 200 mg SC-58635 BID and 500 mg Naproxen BID in treating the Signs and Symptoms of Osteoarthritis (021)

GD Searle and Company. Double-blind, Placebo Controlled Comparative Study of the Efficacy and Upper Gastrointestinal Safety of Arthrotec 75mg Twice Daily, Nabumetone 1500mg Daily and Naproxen 500mg Twice Daily in Treating the Signs and Symptoms of Osteoarthritis (355)

G.D. Searle and Company. Double-Blind, Placebo Controlled, Randomized Comparison Study of the Efficacy and Upper Gastrointestinal Safety of 100 mg, 200 mg and 400 mg SC-58635 BID and 500 mg Naproxen BID in treating the Signs and Symptoms of Rheumatoid Arthritis (022)

G.D. Searle and Company. Long-Term Safety of SC-58635 in Treating the Signs and Symptoms of Osteoarthritis and Rheumatoid Arthritis (024)

G.D. Searle and Company. Double-Blind, Parallel Group Study Comparing the Incidence of Gastroduodenal Ulcer Associated with SC-58635 200 mg BID with that of Naproxen 500 mg BID taken for 12 weeks in Patients with Osteoarthritis or Rheumatoid Arthritis (062)

G.D. Searle and Company. Double-Blind, Parallel Group Study Comparing the Incidence of Gastroduodenal Ulcer Associated with SC-58635 200 mg BID with that of Diclofenac 75 mg BID and Ibuprofen 800 mg TID, taken for 12 weeks in Patients with Osteoarthritis or Rheumatoid Arthritis (071)

G.D. Searle and Company. Clinical Protocol for a Multicenter, Double-Blind, Parallel Group Study Comparing the Incidence of Clinically Significant Upper Gastrointestinal Adverse Events Associated with SC-58635 400 mg BID to that of Ibuprofen 800 mg TID in Patients with Osteoarthritis or Rheumatoid Arthritis (035)

G.D. Searle and Company. Clinical Protocol for Multicenter, Double-Blind, Placebo-Controlled, Parallel Group Study Comparing the Incidence of Gastroduodenal Ulcer Associated with Valdecoxib 10 and 20 mg QD with that of Ibuprofen 800 mg TID and Diclofenac Sodium 75 mg BID taken for 12 weeks in Patients with Osteoarthritis (048)

Glaxo Wellcome Inc. Efficacy of Ranitidine Bismuth Citrate in Combination with Amoxicillin and Clarithromycin in Helicobactor pylori Eradication (RAC)

Glaxo Wellcome Inc. Efficacy of Ranitidine Bismuth Citrate in Combination with Clarithromycin and Metronidazole in Helicobacter pylori Eradication (RMC)

Wyeth-Ayerst. Comparison of the Clinical Safety and Efficacy of Pantoprazole 10 mg, 20 mg or 40 mg Once Daily and Placebo in Patients with Symptomatic Erosive Esophagitis

Astra Merck. Multicenter, Randomized, Double-Blind, Eight Week Comparative Efficacy and Safety Study of H 199/18 40 mg and Omeprazole 20 mg in Study Subjects with Erosive Esophagitis (174)

Astra Merck. Multicenter, Open-Label Long Term Safety Study of H 199/18 40 mg in Subjects with Healed Erosive Esophagitis (179)

Glaxo-Wellcome Inc. Randomized, Double-Blind, Placebo-Controlled, Multicenter Study of Alosetron in Female Subjects with Irritable Bowel Syndrome (IBS)

British Biotech. Double-Blind Randomized Placebo Controlled Multicenter Study to Evaluate the Efficacy and Safety of two Doses of Lexipafant for the Treatment of Acute Pancreatitis (D06/IVB/215)

British Biotech. Phase III, Double-Blind Randomized Placebo Controlled, Multicenter trial to Assess the Effect of Lexipafant on the Incidence of Acute Pancreatitis in Patients Undergoing an Endoscopic Retrograde Cholangiopancreatography (ERCP). (D06/IVB/221)

Jansen. Evaluation of the Use of Duragesic in Chronic Pancreatitis Patients with Chronic Pain.
Abbott Diagnostics, Inc. Abbott TestPak +Plus H. pylori COMBO rapid Immunoassay for Qualitative Detection of IgG to H. pylori in Serum

Bayer Diagnostics. Bayer H. pylori Assay for Qualitative Detection of IgG to H. pylori in Serum

Astra Pharmaceuticals. A Comparative Efficacy and Safety Study of H 199/18 (40 mg and Omeprazole (20 mg) in Study Subjects with Erosive Esophagitis. (222)
Wyeth-Ayerst. Comparison of the Clinical Efficacy and Safety of Pantoprazole 10 mg, 20 mg or 40 mg Once Daily and Ranitidine 150 mg BID as a Relapse prophylaxis Over Three Years for Patients with Healed Erosive Esophagitis Multicenter, prospective observational study of patients with acute Gastrointestinal Hemorrhage

Janssen. A Double-blind placebo-controlled Dose-finding Trial to Evaluate the Efficacy and Safety of R149524 in Diabetic Subjects with Symptoms of Gastroparesis

Tap Holdings. A study to Evaluate the Safety and Efficacy of TAK-637 (30mg BID, 60mg BID, and 120mg BID) versus Placebo in Subjects with Irritable Bowel Syndrome

G.D. Searle, Strange Cancer Institute & the National Cancer Institute. Prevention of Sporadic Colorectal Adenomas with Celecoxib (005)

Forrest Laboratories Inc. A 26-week, Randomized, Double-Blind, Active-Controlled, Multi-Center, Parrell Group Study to Investigate the Gastrointestinal Safety of ML3000 400 mg BID Compared to Naproxen 500 mg BID in Patients with Osteoarthritis (OA) of the Knee

Parmacia & Upjohn Company. Clinical Protocol for a Randomized, Double-Blind, Placebo Controlled, Parallel, Multiple Dose Comparison of the Effects of Celecoxib 200 mg BID and Placebo in Patients with Ulcerative Colitis in Remission.

EXACT Inc. A Multicenter Comparison of the EXACT Panel with Hemoccult II for the Detection of Colorectal Neoplasia in Average Risk Patients.

ABSTRACTS

Roger M. Kao, Russell D. Brown, Allan G. Halline, **Rita M. Herm-Barabasz***, Rama P. Venu. Use of Droperidol during ERCP: Does it reduce the Need for Anesthesia. Submitted to AGA 2002.*

Crawford JA, Meyer JM, **Herm-Barabasz RM,** Goldstein JL. Two open-label efficacy trials of Ranitidine bismuth citrate (RBC) in combination with Clarithromycin and Amoxicillin or Metronidazole for *Helicobacter pylori (Hp)* eradication. Submitted to AGA, 1998.

K. Deiss, J. McDougall, S. Aceituno, P. Dalton, D. O'Donnell, D. Schmidt, **R. Herm-Barabasz**,
P. Schreckenberger, K. O'Neill, J. Omachi, M. Baiulescu, M. Mihalov, M. Brown, J. Goldstein. Evaluation of TESTPACK® PLUS™ *H. pylori* in Venous Whole Blood (WB), Serum, Plasma and Fingerstick (WB). Submitted to AGA, 1999.

ABSTRACTS / POSTERS PRESENTED AT MEETINGS

Roger M. Kao, Russell D. Brown, Allan G. Halline, **Rita M. Herm-Barabasz**, Rama P. Venu. Use of Droperidol during ERCP: Does it reduce the Need for Anesthesia. AGA 2002

K. Deiss, J. McDougall, S. Aceituno, P. Dalton, D. O'Donnell, D. Schmidt, **R. Herm-Barabasz**, P. Schreckenberger, K. O'Neill, J. Omachi, M. Baiulescu, M. Mihalov, M.

Brown, J. Goldstein. Evaluation of TESTPACK® PLUS™ *H. pylori* in Venous Whole Blood (WB), Serum, Plasma and Fingerstick (WB). Presented at AGA, 1999.

Crawford JA, Meyer JM, **Herm-Barabasz RM,** Goldstein JL. Two open-label efficacy trials of Ranitidine bismuth citrate (RBC) in combination with Clarithromycin and Amoxicillin or Metronidazole for *Helicobacter pylori (Hp)* eradication. Presented at AGA, 1998 and Mayo Clinic: Nursing Continuing Research Education, Feb 2000.