Teamwork and Collaboration Competency Resource Paper

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AACN, QSEN Teamwork and Collaboration

**Definition:** Function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care

**Key Message**
Safe, effective, satisfying patient care requires teamwork, collaboration with and communication among members of the team, including the patient and family as active partners.

**Objectives**
1. Define teamwork and collaboration
2. Describe the impact of collaboration on patient, care provider and organizational outcomes
3. Discuss differences in scope among members of the health care team
4. Describe three strategies that promote effective teamwork

**Introduction**
For almost 40 years, researchers and theorists have labored to understand the dynamics inherent in groups and teams, drawing heavily on sociological studies examining group structures, problem solving and communication. Situations such as the Bay of Pigs and the Challenger disaster drew national attention to how groups function. Within the health care community, the Institute of Medicine (IOM, 1998) drew attention to the fact that 98,000 deaths were occurring annually, leading to complications and death. In 2008, the Joint Commission noted that “safety and quality of patient care is dependent on teamwork, communication and a collaborative work environment.” Understanding and optimizing team performance, and collaboration among team members, is a core responsibility of all health care team members.

A key point to emphasize throughout this document is that the patient and family are to be key members of the team. The IOM has directed organizations to develop patient/family centered approaches which actively includes the patient and family in planning, executing and evaluating any care that is to be given. One of the other modules in the Quality and Safety Education for Nurses/American Association of Colleges of Nursing initiative focuses on Patient/Family Centered Care. In that module are the history of this movement, key definitions and principles, strategies for promoting patient/family centered care, and mechanisms for evaluating its effectiveness.

**Collaboration**
Collaboration is the “process of joint decision making among independent parties involving joint ownership of decisions and collective responsibility for outcomes. The essence of collaboration involves working across professional boundaries” (Liedtka & Whitten, 1998). The parties bring individual areas of expertise to a particular situation, as well as diverse perspectives which are influenced by professional orientation, experience, age, gender, education and socio-economic status. Conditions which enhance
collaboration include shared goals, an understanding of the other’s roles and responsibilities, mutual respect, clear communication, an openness to learning, and an ability to change one’s viewpoint, given new information. Barriers to collaboration include persistent worldview differences (Baggs & Schmidt, 1997), professional autonomy (Shine, 2002) and inequitable power gradients (Roberts, 1997).

Gardner (2005) provides a helpful overview of collaboration, outlining 10 key lessons for enhancing it: (1) Know thyself; (2) Learn to value and manage diversity; (3) Develop constructive conflict resolution skills; (4) Use your power to create win-win situations; (5) Master interpersonal and process skills; (6) recognize that collaboration is a journey; (7) Leverage multidisciplinary forums to increase collaboration; (8) Appreciate that collaboration can occur spontaneously; (9) Balance autonomy and unity in collaborative relationships; and, interestingly, (10) Remember that collaboration is not required for all decisions.

Nurse-physician collaboration

Nurse-physician collaboration is a historically important form of collaboration in health care. Baldwin (2007) asserts that it started in World War II successes with multidisciplinary medical and surgical teams and expanded in Lyndon B Johnson’s Great Society with the idea that the poor and underserved would be cared for by teams.

Fairman and Lynaugh (1998, 85) in their landmark book on the early days of critical care noted the impact that each profession had on the development of the other:

To gain expertise about the care of complex patients, nurses learned through experience and from physicians. Although many physicians were equally unskilled in the care of physically unstable patients, physicians provided much of nurses’ postgraduate education through formal lectures and informal conversations. Nurses learned through slow periods in the intensive care area. During these times, residents (usually) and nurses in the intensive care unit discussed patients in detail, each learning from the other. When cardiac monitors were introduced at one hospital, a nurse remembered nurses and physicians grouped informally around the monitor screen in “pick-up” sessions...Unusually close camaraderie developed between nurses and physicians in the units because of the small areas, shared sense of adventure in the new setting, and the selection of the ‘expert nurses,’ usually young and ‘energetic,’ to staff the unit. ‘We nurses and physicians] were all in this together,’ one nurse noted. ‘We all learned from each other.’

In 1999, Tom Gilmore wrote a small piece about productive pairs, or individuals who come together and develop a partnership to accomplish a shared goal. Characteristics of these partnerships include:

- separate bodies of knowledge, networks and different ways of looking at the world;
- a commitment to a common goal or vision
- understanding and valuing each other’s area of expertise and perspective;
- sufficient time or history together to develop interdependencies
- mutual trust that enables frank discussion, shared feedback and healthy disagreement
• a commitment to the relationship with no complaining to third parties to deal with disagreements
• resistance to being divided by colleagues in their respective professions

While most health care professionals strongly believe in the merits of collaboration, relatively little definitive research has been done to connect interprofessional collaborative interventions with improved outcomes. For example, in the most recent Cochrane Review (Zwarenstein, Goldman & Reeves, 2009), five studies were found that evaluated the effects of practice-based interventions occurring as a result of interprofessional collaboration. One is a study by Curley, McEachern & Speroff (1998) retained from the first review (Zwarenstein, 2000) while four are newly included (Schmidt, Claesson, Westerholm, Nilsson, Svarstad, 1998; Wild, Nawaz, Chan, Katz, 2004; Wilson, Marks, Collins, Wanrer, Frick, 2004; Cheater, Hearnshaw, Baker, Keane, 2005). The interventions were categorized as interprofessional rounds, interprofessional meetings, and externally facilitated interprofessional audit. Three of the studies found improvements in key patient care outcomes, e.g., drug use, length of stay and total hospital charges. One study described mixed outcomes and one showed no impact.

While the original Cochrane Review examined nurse/physician collaboration, the present review considered studies which examined collaboration between any types of health and social care providers, such as dieticians, pharmacists, radiographers, social workers and speech therapists. This was done to reflect the increasingly important role of a wide variety of care providers, and developments in research on the issue.

Although only five studies met the Cochrane criteria, hundreds of narratives and reports are available that examine the presence and impact of collaboration. Table 1 presents information on the design and findings from 16 studies conducted in the United States that examined the impact of some form of clinical intervention on collaboration between nurses and physicians. A comprehensive discussion on the current status of research on collaboration between nurses and physicians can be found in the first edition of Patient Safety and Quality: An Evidence-Based Handbook for Nurses (Jennings, Disch, & Senn, 2008).

The benefits of collaboration
Depending on the focus of the study, collaboration can benefit patients, care providers and the organizations in which care is provided. Described here are illustrative examples of studies which were conducted which benefit research on collaboration with examples of the benefits to patients, nurses and physicians and organizations.

Benefits to patients:
• Knaus, Draper, Wagner and Zimmerman in 1986 in one of the earliest studies to look at the influence of collaboration found that, in 13 intensive care units (ICUs) there was a significant relationship between the presence of excellent interaction and coordination of care among nurses and physicians and improved patient outcomes.
• Baggs has directed a number of studies investigating the impact of nurse/physician collaboration on patient outcomes. In 1992, she and her team investigated the extent to which nurses and physicians perceived collaboration and negative outcomes of
care (e.g., death, readmission to the ICU) or the transfer of patients from the ICU to a less intensive area. They found that the more collaboration that nurses reported, the lower the risk of a negative patient outcome. In a second study in 1999 in 3 different types of ICUs, nurse perceptions of collaboration correlated significantly with a lower risk of negative outcome (3 vs. 14%) in the medical ICU. This was not true in the surgical ICU or the community hospital ICU.

**Benefits to nurses and physicians:**

- Boyle and Kochinda (2004) engaged ICU nursing and physician leaders in educational and experiential modules in a pretest-posttest, repeated measures design, resulting in improved communication skills, leader satisfaction and a perceived improvement in problem-solving skill.
- Disch, Beilman and Ingbar (2001) examined the role of the medical director as physician leader and partner to the nurse manager in creating a healthy work environment. Benefits to the role, as well as barriers and suggestions for improvement, were offered.
- Messmer (2008) examined the level of nurse-physician collaboration during pediatric simulation experiences. She found that both nurses and physicians identified high levels of group cohesion, and collaboration and satisfaction with patient care decisions.

**Benefits to the organization:**

- Cowan, Shapiro, Hays, Afifi, Vazirani, Ward & Ettner (2006) compared traditional management of general medicine patients with nurse practitioner/hospitalist, multidisciplinary team-based planning – and found that LOS was reduced (5 vs 6 days) and profit to the hospital was higher ($1591 vs. $639) in the experimental group.
- Mohr, Burgess, & Young (2008) examined teamwork culture in Veterans Health Administration hospitals and found that teamwork culture was negatively associated with nurse and physician resignation rates (although statistically significant for the nurse regression model).

**Different views of collaboration**

Schmalenberg and Kramer (2009) synthesized the results of 6 studies involving 20,000 staff nurses (and a smaller number of nurse managers and physicians) and identified 5 types of nurse/physician relationships: *collegial* characterized by equal trust, power, and respect; *collaborative* with mutual trust, power, respect and cooperation; *friendly stranger* with a formal exchange of information and a neutral tone; *hostile/adversarial* marked by anger, verbal abuse, real or implied threats, or resignation; and *student-teacher* where either plays the teacher role. In analyzing results within one study in 2003 (Kramer & Schmalenberg), they found that nurses who worked in both Magnet hospital and non-Magnet hospitals cited collegial and collaborative relationships most frequently but with greater frequency by the nurses in the Magnet hospitals (86 vs. 61% for collegial; 82 vs 64% for collaborative. Nurses in non-Magnet hospitals more frequently reported hostile/adversarial relationships (29 vs 13%). In a 2007 study with 10,500+ nurses (Schmalenberg & Kramer), collegial and collaborative relationships were again cited most frequently by both groups but by a closer margin (81 and 75% for collegial, and 85 and 80% for collaborative. Hostile/adversarial relationships had increased.
somewhat for the Magnet nurses (17%) and decreased for the non-Magnet (20%). Five areas were proposed to improve nurse-physician relationships in all facilities: a culture in which “concern for the patient is first;” effective conflict resolution; participative, interdisciplinary patient rounds; competence; and self-confidence.

Important as most health care professionals believe collaboration to be, it is not surprising that nurses and physicians do not define teamwork and collaboration similarly. For example, Makary and colleagues (2006) noted that nurses in the operating room described collaboration as having input into decision-making, while physicians described it as having their needs anticipated and directions followed. Fletcher, Baker, Copeland, Reeves and Lowery (2007) examined nurse practitioner and physician perceptions of the role of NPs as providers of primary care, noting that NPs saw their role as one of autonomous practice while physicians saw the role similar to a physician extender. Physicians also routinely report the perception of greater levels of collaboration than nurses (King & Lee, 1994; Rosenstein, 2002; Thomas, Sexton & Helmreich, 2003; Mills, Neily, & Dunn, 2008).

It is predictable that nurses and physicians would approach collaboration from different viewpoints. They come from different cultures, use specialized languages, face different societal expectations, hold differing viewpoints and goals, and often define success very differently. Increasingly, intergenerational differences about motivation, work ethic, learning styles, authority relationships and communication patterns are affecting the harmony of work teams. What are needed are strategies for recognizing and harnessing these differences in the pursuit of shared goals and expected outcomes.

A key question to explore is when does collaboration begin, and what does it look like from the younger physician perspective. In a fascinating qualitative study with 20 residents by Weinberg, Miner and Rivlin (2009), they examined the quality of the nurse/physician relationship from the residents’ viewpoint. Through interviews, they found great variability in the experiences and viewpoints of the residents but a few common themes: (1) perception of the nurses’ cooperativeness and competence shaped the relationship; (2) most residents initiated communication to tell the nurses which orders to fill or to give instructions—but not to necessarily exchange information with them. As one noted, “I tell them tests that I need, but I don’t give them much information. They’re not making decisions about treatment or anything.” (3) being trustworthy or ‘good’ was related to their clinical judgment and ability to identify crucial information; (4) generally the residents were unaware of the educational background of the nurses, including LPNs; and (5) residents repeatedly characterized interdependence as “a pattern in which residents gave orders that nurses carried out.”

Key related concepts
To some extent, the different views of collaboration occur because the concept is closely linked to a number of other concepts that share certain characteristics, e.g., teamwork which is described in detail below, communication which is also described below,
collegiality (Feiger & Schmitt, 1979; Schmalenberg et al, 2005); trust (Liedtka & Whitten, 1998; Succi, Lee, & Alexander, 1998); and coordination (Knaus et al, 1986).

Communication – is “a process by which information is exchanged between individuals through a common system of symbols, signs or behavior” (Merriam-Webster, 2009). While communication can occur verbally or non-verbally, it is widely accepted that effective communication is a precursor to collaboration. Barriers to communication in health care are plentiful and arise from the different languages that professionals use among themselves and with patients and families; across gender, age, cultural and ethnic boundaries; and under conditions of stress which can be experienced by patients, families and care providers. With the escalating pace of society today, forms of communication such as email and text messaging add complexity and potential confusion to the exchange of vital information.

Poor communication has been identified as a major contributor to patient error: The Joint Commission (TJC) (2008) has cited communication failures as the most frequently identified root cause of sentinel events reported to TJC between 1995-2008, and also for medication errors, delays in treatment, and wrong-site surgeries.

Manojlovich and Antonakos (2008) examined the satisfaction of intensive care unit nurses with nurse-physician communication and found that nurses were more satisfied with open, accurate and understanding communication and with communicating with attending level physicians, but that the years of experience in the ICU setting was inversely related to satisfaction. This latter finding was speculated to be related to deteriorating relationships if communication difficulties persist over time. It may also reflect the historical experience of some older nurses who practiced in a time when nurses and physicians did not function as peers. Also satisfaction was lower in cardiac surgery ICUs; this is consistent with Baggs’ findings (1999) that satisfaction varied among types of units. This may reflect the reality that surgeons spend far less time in the patient care unit and, thus, have less opportunity to communicate with and form effective relationships with the nurses in these units.

Disch (2009) identified 10 qualities or abilities of effective communicators: These individuals are interested, open, purposeful, passionate, connect the dots, succinct, use compelling evidence, deliver a clear message, put themselves in the others’ situations – and listen carefully (pick up cues) while they are communicating with their audiences.

Delegation - One particular form of communication relates to the interaction between nurses and unlicensed assistive personnel in determining what cares should be performed by whom for a particular patient. “To delegate is to transfer authority to a competent individual for completing selected nursing tasks/activities/functions. To assign is to direct an individual to do activities within an authorized scope of practice. Assignment (noun) describes the distribution of work that each staff member is to accomplish in a given work period” (NCSBN, 2009 b). Working with unlicensed assistive personnel and assuring that the care that they provide is safe is an increasingly important challenge for nurses. Fortunately the National Council of State Boards of Nursing (2009, a) has
developed a delegation decision tree and other tools to help the nurse work effectively with assistive personnel.

**Teamwork**

A particular form of collaboration occurs through teams. “Teamwork is a joint action by two or more people, in which each person contributes with different skills and expresses his or her individual interests and opinions to the unity and efficiency of the group in order to achieve common goals.” ([http://en.wikipedia.org/wiki/Teamwork](http://en.wikipedia.org/wiki/Teamwork)) For teamwork to be effective, all members must work toward a common goal and contribute their particular skills and abilities to its accomplishment.

But first, what is a team? Katzenbach and Smith (2005, 165) note that “people use the word ‘team’ so loosely that it gets in the way of learning and applying the discipline that leads to good performance.” To underscore their point, listed here are several types of groups:

- *group* – any collection of interconnected individuals working together for some purpose
- *partnership* – an explicit relationship with clear roles and responsibilities between two people who share a common goal or vision
- *committee* – a relatively stable, formally composed group that has an identified purpose as part of an organizational structure
- *task force* – a group convened to accomplish a specific objective within a designated period of time
- *team* – a small number of consistent people committed to a relevant shared purpose,

Table 2 contrasts key elements differentiating a working group from a team (Katzenbach & Smith, 2005). Teams differ in terms of their purpose, size, membership, experience, level of authority, history and chemistry. Interestingly, as will be discussed later, to be effective, teams do not necessarily have to have a long history of working together, or have members who even like each other.

While teams are the functional groups through which much of health care is delivered, much of the research on teams has been conducted in the fields of social psychology and organizational psychology. Kozlowski and Ilgen (2006, 79) provide a helpful meta-analysis of this work. First, they created a composite definition of team: “(a) two or more individuals who (b) socially interact (face-to-face or, increasingly, virtually); (c) possess one or more common goals; (d) are brought together to perform organizationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f) have different roles and responsibilities; and (g) are together embedded in an encompassing organizational system, with boundaries and linkages to the broader system context and task environment.” Second, they offered an enriched concept of team effectiveness, moving from the traditional, and limiting, input-process-output framework, toward a more dynamic concept that incorporates a multilevel system context, the team’s task, time, unit and team climate, team mental models and team learning.
Teams in health care

Interprofessional teams
For the most part, interdisciplinary teams are defined as individuals from at least two different disciplines who coordinate their expertise to deliver care to patients (Farrell, Schmitt & Heinemann, 2001). Drinka and Clark (2000) extend this definition to note that interdisciplinary teams work together as an identified unit or system. Nelson and colleagues (2002, 473) call this a *microsystem*: the “small, functional, front-line units that provide most health care to most people. They are the essential building blocks of larger organizations and of the health system. They are the place where patients and providers meet. The quality and value of care produced by a large health system can be no better than the services generated by the small systems of which it is composed.”

The terms multidisciplinary and interdisciplinary are often used interchangeably when two or more disciplines are involved. Schofield and Amodeo (1999) suggest that interdisciplinary infers interaction or collaboration. However, within academic health centers, the term interdisciplinary often refers to physicians who are from different specialties or disciplines within the profession of medicine, e.g., cardiologists vs nephrologists. Internationally and in many parts of the United States, the term interprofessional is increasingly being used to emphasize the inclusion of individuals from different professions (Horder, 2004).

Three challenges in working as a member of a team in health care today are that there are so many individuals involved, each has a different scope of practice, which can involve areas of overlap across the professions, and changes in shift length for nurses and resident work hours have affected the consistency of membership in work teams. Knowing what each team member’s role and scope of practice is helps in clarifying who is legally able to do what, and suggests who might have particular skills for a specific patient/family situation. Table 3 defines the scopes of practice for health care team members in the state of Minnesota. Each state would define its health professionals’ scopes, but they do differ from state to state for a number of reasons, e.g., historical patterns, regulatory requirements, consumer demand.

The importance of teams in health care
While teams are important in helping organizations achieve goals and assisting individuals have a positive work experience, in health care far more is at stake. As noted above, collaboration among members of the health care team is critically important in assuring quality and safety of patient care. It has been estimated that 70-80% of health care errors are caused by some contribution of human factors within interpersonal interactions (Schaefer, Helmreich, Scheidegger, 1994), and The Joint Commission cites communication among team members as the #1 factor in sentinel events (2008). Cooke, Salas, Cannon-Bowers and Stout (2000, 151) have noted that “the growing complexity of tasks frequently surpasses the cognitive capabilities of individuals and, thus, necessitates a team approach.” For many reasons, the Institute of Medicine (IOM) (2001, 9), in its Ten New Rules for delivering safe, effective care, appropriately mandated “Cooperation among Clinicians: Clinicians and institutions should actively collaborate and
communicate to ensure an appropriate exchange of information and coordination of care.” In 2003, the IOM further identified the five core competencies that are required for all health care professionals’ education: Among them is the ability to work in interdisciplinary teams. Ingersoll and Schmitt (2004) offer a comprehensive summary of the linkages among interdisciplinary collaboration, team functioning and patient safety.

The research on teams in health care
In Keeping Patients Safe: Transforming the Work Environment of Nurses (IOM, 2004), six integrative reviews of the literature regarding interdisciplinary teams and care delivery outcomes are highlighted. Studies that were incorporated into these reviews used different methods, examined different types of outcomes, and found mixed assessments of team effectiveness. In spite of the massive amount of work represented in these reviews, Schofield and Amodeo (1999) aptly sum up a conclusion drawn by many of the researchers: The team model is roundly endorsed but with little ability to evaluate its impact.

Stages of Team Development
Most teams go through predictable patterns of formation and growth. Bruce Tuckman (2009) developed a popular model for predicting these four stages, later adding a fifth stage. The first stage, Forming, occurs at the beginning of the group’s working together. There are feelings of curiosity and excitement, anticipation, optimism. There is pride in being chosen with a tentative attachment to the team. The second stage, Storming, is a challenging yet important stage for the group to proceed through. In this stage, there is resistance to the task and recommended approaches. Confusion and frustration can occur with fluctuations in attitudes, jockeying for position, and resistance to individuals assuming leadership roles. Some groups move expeditiously through this stage, while others stay in it through the length of the group’s existence. The third stage, Norming, is where acceptance of membership in the team emerges. There is a new ability to express criticism constructively, and generally a belief that things will work out well. The fourth stage of Tuckman’s original model is Performing, where there is satisfaction with the team’s progress and achievements. Group members function interdependently and there is growing recognition of individual and group strengths. Finally, Adjourning occurs when group members bring closure to their work, and experience a sense of shared pride. This model is very helpful when structuring, directing and participating in groups as (1) there are predictable patterns and challenges that are part of a normal group’s experience; and (2) while the model appears linear, groups may move in and out of stages, return to an earlier stage, become stuck in one, or move quickly to Performing.

Building team performance
Disch (2010) has compiled a set of successful strategies that enhance team performance. They include:
1. establish a sense of urgency and importance of the work
2. outline clear expectations and outcomes to be achieved. A charter which is a document describing the purpose, aims, scope, principles and outcomes of a group is a helpful unifying tool to use for direction and focus as a new group forms
3. select members for skill and skill performance, not personality – but if members are assigned, be clear about their responsibilities
4. make meetings worthwhile with explicit agendas, specific goals, prompt starts, attention to the time, and review of decisions and next steps at the end
5. establish clear rules of behavior. A compact or agreement that lays out the conditions under which the work will be done, and what members can expect of each other, is a helpful tool to co-create when a team first comes together. This can include how members will relate with each other, keep each other informed, handle disagreements of opinion, share the work, etc.
6. link the work of the team to the broader organizational context – bring in data, perspectives, updates that enrich the work and keep it relevant
7. recognize accomplishments and milestones –
8. create opportunities for every team member to participate –
   a. if a few people monopolize the discussion, suggest that everyone in the group be given a chance to weigh in
   b. allow for some feedback to be provided in written form in between meetings
   c. provide a minute for people to collect their thoughts after a question is posed

Crew Resource Management
One specific model for strengthening team effectiveness among professionals is Crew Resource Management (CRM) (O’Daniel & Rosenstein, 2008). Used for years in the aviation and nuclear power industries, the concepts have been applied over the past few years to the health sector as a means of improving patient safety. Both the IOM and AHRQ have asserted that patient safety can be enhanced with this approach, although evidence has not been fully forthcoming regarding its effectiveness, citing the limited track record that has occurred in health care. The training emphasizes six key areas: managing fatigue, creating and managing teams, recognizing adverse situations (red flags), cross-checking and communication, decision making, and performance feedback. One promising study by Grogan et al (2004) examined the impact of CRM on the performance of clinical teams from several specialty areas. Using the Human Factors Attitude Survey to measure attitudinal shifts toward the six content areas, the team found that there were positive gains as a result of the training.

Team Effectiveness
While teams vary greatly in their composition and purpose, the following are usually in place with effective teams: clarity about their purpose; members with necessary skills; members who understand their roles and accept them; an effective leader, and ‘sufficient’ resources. There must also be a sense of equity as to the workload, i.e., members may have different assignments or varying amounts of work, but there must be the general sentiment that distribution of work is somehow balanced.

The work on microsystems offers a framework for identifying the factors that need to be in place to help teams achieve their goals. In one of a series of articles on microsystems, Nelson et al (2002) described the characteristics that were identified through research as being present in highly effective clinical microsystems. These are listed in Table 4.
As Salas, Cannon-Bowers and Johnston have reminded us (1997), however, a team of experts does not make for an expert team. Shared mental models, cross-training, team model training, and team adaptation are also needed.

Factors that compromise effective team performance
Several factors compromise the ability of a well-intentioned group of individuals to form an effective team.
- **Groupthink.** Janis (1972) described the phenomenon that occurs when efforts are taken to control the flow of information and decision making to a group, thus restricting its ability to fully explore all options in a situation.
- Sasou & Reason (1999) described the impact of *excessive authority gradients* and *excessive professional courtesy* on effective team performance that readily occurs in many health care settings when deference is given to the physician as the senior leader and decision maker in all situations.
- Sasou and Reason (1999) also described several *performance shaping factors* (PSFs) that can be internal or personal to the individual (high stress, excessive fatigue, deficiencies in knowledge and skill), or external related to the work environment. Within health care, a number of factors have emerged over the past ten years that have radically changed the nature of the work environment and, thus, the ability of teams to form and function effectively. These include the increase in part-time shifts for health care personnel, and 10- and 12-hour shifts; use of float pool and temporary staff; reduced rotations for house staff; and shortened lengths of stay for patients.

Disruptive behavior
Over the past ten years, increasing attention has been paid to the impact of disruptive behavior by health care professionals on each other, and on the functioning of the team. According to Grena Porto (2009), a nurse who specializes in helping organizations address this issue, disruptive behavior is “behavior that interferes with the ability of everyone on the team to provide safe and effective care; undermines the confidence of any member of the healthcare team in effectively caring for patients; undermines patients’ confidence in the healthcare team or organization; causes concern for anyone’s physical safety, and undermines effective teamwork.” It can take the form of verbal abuse (e.g., profane or disrespectful language, name-calling, failure to respond to concerns about safety, outbursts of anger) and physical (e.g., throwing objects, pushing). It can also be seen as intimidation and retaliation. Unfortunately it’s fairly common. Rosenstine (2002) noted that it was reported by 96% of nurses.

Disruptive behavior is not only reported by and against nurses (Speedie, 2006; Porto, 2009). In a study of 4530 healthcare providers, including doctors, nurses, administrative executives and other hospital personnel, Rosenstein and O’Daniel (2008) found that 77% reported disruptive behavior by physicians and 65% by nurses. Fully 99% reported that this affected nurse/physician relationships, and 67% felt that there was a link between disruptive behavior and adverse events.

The Joint Commission has identified this issue as a major cause for concern and has issued two new Leadership standards:
• EP 4 – The hospital/organization has a code of conduct that defines acceptable and disruptive and inappropriate behaviors
• EP 5 – Leaders create and implement a process for managing disruptive and inappropriate behaviors.

Along with these standard statements, the Joint Commission has issued a number of suggested actions, including to educate all team members, establish a ‘zero tolerance’ approach, develop organizational processes for monitoring and reporting. In total, there are 11 recommendations (Joint Commission, 2008). These are displayed in Table 5.

During this same period, leaders in a number of organizations have already instituted policies to address this issue. For example, Barnsteiner, Madigan & Spray (2001) instituted a Disruptive Physician Conduct policy at the Children’s Hospital of Philadelphia. The American Association of Critical-Care Nurses (2005) issued its set of Standards for Establishing and Sustaining Healthy Work Environments, and the American Organization of Nurse Executives (2010) has issued a set of Guiding Principles for Excellence in Nurse/Physician Relationships.

Evaluating team effectiveness
There are a number of tools available on the web for assessing team performance. Team Health Check (http://www.teams.org.uk/hcheck.htm) is a simple tool with 20 questions that explores purpose/direction, team leadership, understanding differences, processes, communication and relationships. Kilvington and Allen (2001) developed a checklist with questions related to results and productivity, team structure, team operation and team skills. A simple tool developed at the University of Kentucky (2009) asks respondents to evaluate team members on 5 characteristics: dependability and preparation; quality of work; member participation in the group; task completion; member contribution to group cohesiveness and functioning. A tool that was developed through a rapid-cycle improvement process and piloted through observation of videotaped simulation experiences (surgical procedures, multidisciplinary rounds) is the Communication and Teamwork Skills (CATS) Assessment (Frankel et al, 2007). While still needing refinement, it offers promise for evaluating training programs and providing quantifiable feedback to clinicians. Also used in simulation settings, the Mayo High Performance Teamwork Scale (2007), provides a brief, reliable, practical measure of CRM skills that can be used by participants in CRM training to reflect on and evaluate their performance as a team.

Interprofessional education
Given the importance of interprofessional collaboration, the need for educating tomorrow’s professionals in this competency is tremendously important. For the most part, health care professionals are educated in professional silos, although this is slowly changing. The IOM (2003) accelerated the pace of change when it declared that five competencies should be demonstrated by graduates of all health professions’ schools, among them the ability to function effectively in interdisciplinary teams.
Barnsteiner, Disch, Hall, Mayer and Moore (2007) provide a comprehensive review of the history of interprofessional education and suggest six criteria for effective interprofessional education. These criteria are listed in Table 6.

Examples of programs for improving interprofessional team performance
Salas et al (2009) have identified a number of success factors associated with helping teams become more effective. These include team leadership, shared mental models, psychological safety, and consideration of context and time. A number of programs have been developed over the past ten years incorporating these factors. Here are three examples of programs that have been particularly effective.

**TeamSTEPPS**
The Agency for Healthcare Research and Quality (AHRQ) collaborated with the Department of Defense (DoD) to develop an initiative that stresses teamwork and communication among physicians, nurses, and other health care personnel to make the delivery of health care safer for all patients. Originally developed for work in the military, the Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS[TM]) principles have been adapted for use in patient care to reduce clinical errors, and improve patient outcomes and patient and staff satisfaction. The program has been successful in a variety of settings such as the emergency departments and labor and delivery. Four key skill areas form the basis for training: leadership, situation monitoring, mutual support and communication. Listed in the Toolkit section of this Module are a number of helpful resources that have been developed by AHRQ to help organizations incorporate the TeamSTEPPS principles.

**ACT**
Achieving Competence Today (ACT) is an interdisciplinary teaching program that focuses on quality, safety and health systems improvement (Ladden, Bednash, Stevens, Moore, 2006). The program is a self-directed, web-facilitated, action-learning curriculum for graduate students in the health care professions. It consists of four modules: the structure of health care and its impact on care delivery; payment of health care; quality improvement of individuals, populations and practices; and improving personal and system performance. Working together with clinicians, they address issues that threaten patient safety and quality of care and gain experience in the use of quality improvement tools.

**TOPS**
Sehgal and colleagues (2008) described their experience in setting up a multidisciplinary training program TOPS, or the Triad for Optimal Patient Safety project. Using a team-based approach, they outline key concepts and components that enhance the likelihood of success.

Tools for improving team communication
A number of tools and processes have been instituted to clarify communication among health care professionals. One example is the SBAR, an acronym for Situation,
Background, Assessment and Recommendation. This tool offers a framework for clearly, consistently and succinctly communicating pertinent information among health care professionals. Developed at Kaiser Permanente in Denver (Leonard, Graham, Bonacum, 2004), the tool structures communication and helps clinicians respond to situations with a shared mental model. Haig, Sutton and Whittington (2006) describe its implementation at OSF St. Joseph Medical Center in Bloomington, IL, providing helpful tools and a hand-off form to assist in its use.

A particular time of vulnerability related to communication is during a *handoff* – a time when information is transferred, along with authority and responsibility, during transitions in care across the continuum and includes an opportunity to ask questions, clarify, and confirm responses. Examples include shift changes, physicians transferring off from a patient’s care, and patient transfers to other facilities. Friesen, White & Byers (2009) identify 5 strategies for achieving effective hand-offs:

- Use clear language and avoid use of abbreviations or terms that can be misinterpreted
- Use effective communication techniques. Limit interruptions. In some instances, *call-outs* may be used to communicate important or critical information, for example during resuscitations. A *check-back* is a process that uses closed-loop communication to ensure that information conveyed by the sender is understood by the receiver as intended. Verbal orders are a situation when check-backs are helpful.
- Standardize reporting shift-to-shift and unit-to-unit
- Assure smooth handoffs between settings through streamlined processes
- Use technology, such as electronic health records, to enhance communication

The Quality and Safety Education in Nursing (QSEN) website ([www.qsen.org](http://www.qsen.org)) offers a tremendous array of teaching tools and strategies for helping students learn the concepts, and helping seasoned nurses learn them as well. Examples of exercises that promote interprofessional communication and collaboration include: SBAR communication; conflict resolution; TeamSTEPPS; case studies; self-assessments and group exercises.

**National movements to promote interprofessional education**

A number of national initiatives have emerged to promote interprofessional education among health care professionals.

- The Macy and Carnegie Foundations hosted a conference in June 2010 of 7 prominent teaching institutions with schools of medicine and nursing to develop new models of education that foster inter-professional training and curriculum reform to better prepare the future health care workforce. The schools were selected because of the commitment of school leaders (deans, associate deans), and of the faculty, to work together. They were also selected based on what they have already accomplished in inter-professional education and their commitment to future work. The Macy and Carnegie foundations believe that if students in the health professions learn jointly in clinical settings, as graduates they will improve patient outcomes by working more collaboratively, communicating better with each other, and leading health care reform that assures patients quality. ([http://www.carnegiefoundation.org/newsroom/press-releases/medicine-nursing-carnegie-macy-conference](http://www.carnegiefoundation.org/newsroom/press-releases/medicine-nursing-carnegie-macy-conference))
• The Robert Wood Johnson Foundation has supported a number of initiatives aimed toward promoting interprofessional education, practice and research, including the Partnerships for Quality Education and the Interdisciplinary Nursing Quality Research Initiative (INQRI). (http://www.rwjf.org)

• The International Association for Interprofessional Education and Collaborative Practice (Inter-Ed) which promotes and advances scholarship and informs policy in interprofessional education and collaborative practice worldwide in partnership with patients, colleagues, communities and other organizations. http://www.interedhealth.org/site/about/our-objectives

• For more than 15 years, the Dartmouth Summer Institute has invited faculty from schools of nursing, medicine and administration to participate in a week-long intensive seminar on improving interprofessional education. The Quality and Safety Education for Nurses (QSEN) initiative is one of the products of this collaborative community.

• The Interprofessional Professionalism Collaborative is a network of professional organizations from most of the health care professions, sharing information and pursuing consensus on interprofessional professionalism behaviors with the intent of enhancing quality patient outcomes, promoting a culture that values and fosters individual competence, and improves practice and academic environments. The American Association of Colleges of Nursing is a member. http://interprofessionalprofessionalism.weebly.com/about-us.html

New thoughts about teamwork and collaboration

Not surprisingly, a number of interesting variations on the common theme of the work team have emerged as a result of shifting societal demands, and workforce trends – and these all challenge preconceived ideas of what makes a team.

Virtuoso teams (Fischer & Boynton, 2005) – a group of individuals selected for their skills and willingness to take on high stakes challenges; each member is an expert and competition exists among them to be ‘the best of the best.’ Consensus is not the goal, but rather big ideas. Over time, the group can eventually become a powerful team with a shared identity

Virtual teams - also known as a geographically dispersed team (GDT) — “is a group of individuals who work across time, space, and organizational boundaries with links strengthened by webs of communication technology. They have complementary skills and are committed to a common purpose, have interdependent performance goals, and share an approach to work for which they hold themselves mutually accountable. Geographically dispersed teams allow organizations to hire and retain the best people regardless of location. Members of virtual teams communicate electronically, so they may never meet face to face. However, most teams will meet at some point in time” (http://en.wikipedia.org/wiki/Virtual_Teams).

Rapid response teams (RRTs) – These medical emergency teams have been described in the literature for almost 20 years, but achieved great visibility through the Institute of
Healthcare Improvement’s (IHI) 100k Lives Campaign. Configured as an organized response of expert clinicians to quickly intervene in at-risk situations, they have been attributed with preventing complications, saving lives, reducing unplanned admissions to the ICU, and decreasing the number of cardiac arrests. A research team from the University of California, San Francisco, sponsored by the RWJF, conducted a comprehensive evaluation of their effectiveness (Donaldson, Shapiro, Scott, Foley & Spetz, 2009) and identified organizations that were robust hospital adopters and those that were more challenged adopters. Key organizational characteristics of the former group included: the nurses voiced confidence in the benefits of the RTTs; there was clear, consistent communication; unambiguous support for nurses to call the RRT; adequate training; and supportive working relationships between RRT members and the staff.

Temporary systems or teams – The belief that teams function best when they have a long history of working together has been heavily challenged by the skillful functioning of airline crews who meet for the first time at the beginning of their flights of duty, and some health care teams who are able to work effectively in caring for tremendously complex patients without having worked together before. An example of this latter type occurred several years ago in the Twin Cities during a nursing strike when nurses were brought in to staff hospitals. Against all predictions of dire consequences, the nurses performed well, functioned effectively with the physicians and other staff members, and patient care was safely delivered with quality maintained.

Several reasons were given for this surprising outcome: (1) the nurses were skilled professionals who knew how to provide the particular kind of care; (2) explicit guidelines were developed to clearly delineate everyone’s roles; (3) the nurses were friendly, professional, respectful; (4) all members of the health care team were prepared to pitch in and help as needed; (5) the nurses were able to focus on providing care to patients, not running errands and doing non-nursing tasks. What was in operation here is called swift trust, a form of trust that gets readily established in the functioning of a temporary system. Temporary systems have several characteristics that make them unique among teams – and can perhaps provide guidance in how teams could be structured, given the fluid nature of today’s health care workforce. Characteristics of temporary systems include

- Participants with diverse skills are assembled to enact expertise they already possess
- Participants have a clear understanding of what each person contributes
- Participants have limited history working together
- Participants have limited prospects of working together again in the future
- Participants often are part of limited labor pools and overlapping networks
- Tasks are often complex and involve interdependent work
- Tasks have a deadline
Conflict resolution

Conflict can exist within a person, occur between two or more people, or within a large group of people who may or may not know each other. There can be actual confrontation, verbal expression or a conflict that is unexpressed yet apparent through avoidance, denial or non-verbal signs.

An inability to resolve disagreements among team members is a major impediment of effective team performance. Disagreements can involve minor disputes about an aspect of a particular plan, or major conflicts related to the group’s direction, performance or functioning. Disagreements can also arise from different worldviews, or misperceptions. Given the differences cited earlier about characteristics of various health professionals, it is not surprising that one’s health profession or role may be associated with a particular response to conflict. For example, Valentine (2001) found that nurses (staff nurses, nurse managers and educators) used avoidance most often, with staff nurses accommodating, and nurse managers and educators compromising as their back-up responses. In a study by Hendel, Fish and Berger (2007) of 75 physicians and 54 head nurses in 5 hospitals, they found that there was no difference between nurses and physicians in their choice of the most frequently used approach, the compromising mode. Collaboration was frequently used next by nurses, while least frequently by physicians.

Conflict can be addressed through avoidance, diffusion or confrontation. Conflict resolution is a term that has evolved over the past 50 years, referring to a set of strategies employed to diffuse the conflict and, hopefully, satisfy the wishes of all parties involved. Formal negotiation processes to resolve the conflict are available but, in reality, since conflict or disagreements occur so frequently, this is impractical for daily use. In these situations, a simple process for handling conflict is necessary.

Patterson, Grenny, McMillan and Switzler (2002) and Grenny (2009) suggest that a framework of crucial conversations is helpful for ‘talking when the stakes are high.’ Crucial conversations are discussions that occur when (1) opinions vary; (2) the stakes are high; and/or (3) emotions run strong. They offer a series of helpful recommendations for staying focused on priorities; articulating clearly and persuasively what is a desired outcome; keeping the conversation safe; and turning conversation into action.

Emotional intelligence

A precursor to becoming an effective team member and collaborating with others is possessing emotional intelligence, or the ability to identify, assess and manage one’s own emotions and the responses to them, as well as to assess and manage our relationships with others. Gardner, one of the early thought leaders in this phenomenon, described interpersonal intelligence as the ability to understand other people: what motivates them, how they work, how to work cooperatively with them” and “intrapersonal intelligence...[as] a correlative ability, turned inward. It is a capacity to form an accurate, veridical model of oneself and to be able to use that model to operate effectively in life” (1993, 9). Over the years, several models have been advanced, with similar concepts yet
slightly different wording (Mayer & Salovey, 1993; Mayer, Salovey & Caruso, 2000; Goleman, 2001, 14) with Goleman’s definition emerging as the simplest: “The ability to recognize and regulate emotions in self and others.”

The most commonly accepted model of emotional intelligence consists of four domains:

- Managing one’s emotions
- Motivating oneself
- Recognizing emotions in others
- Handling relationships

Kooker, Shoultz and Codier (2006) assert that incorporating emotional intelligence concepts strengthens nurses’ professional identify and may improve nurse retention and patient/client outcomes. Analyzing 16 stories by nurses, they found that elements of professional nursing practice, such as autonomy, nurse satisfaction, respect and the professional practice environment were consistently present in each.

Conclusion

Serving as a member of a dynamic, effective team is a rewarding experience that can enrich one’s own personal and professional life, as well as enhance the work of a group and, in the case of health care, save lives. Given the complexity of the health care environment and the threats to patient safety and quality care, collaboration with other members of the health care team is vital. Fortunately, there are many organizations investing significant time in providing helpful resources and recommendations.
Table #1

*Outcome based, experimental studies focused on increasing collaboration between nurses and physicians* (Jennings, Disch & Senn, 2008)

<table>
<thead>
<tr>
<th>Source</th>
<th>Safety Issue Related to Clinical Practice</th>
<th>Design Type</th>
<th>Study Design, Study Outcome Measure(s)</th>
<th>Study Setting &amp; Study Population</th>
<th>Study Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inouye, S., Wagner, D.R., Acampora, D., Horwitz, R., Cooney, L., Tinetti, M. (1993)</td>
<td>Nurse-Physician Collaboration</td>
<td>Prospective cohort study with stratified and matched cohort analysis; not randomized</td>
<td>Variables measured were: Functional decline- overall Functional decline-matched cohort analysis; Using interviews; self reported ADLs; Mini-Mental exam; Confusion Assessment; physical exam; &amp; medical records for risk assessment</td>
<td>Medicine units; Huge differences in baseline data; Required matched cohorts to further analyze data</td>
<td>216- total 85 intervention 43 RN/MD group 42 RN only group 131 control 66 matched cohorts</td>
</tr>
<tr>
<td>Gallagher, A. (1998)</td>
<td>Nurse-Physician Collaboration</td>
<td>Retrospective and prospective study, convenience sample, repeated measures done quarterly; for 11 months period</td>
<td>Variables measured were: Frequency of BG monitoring; Nutrition assessment; Insulin management; Change to glucose intolerance enteral formula as recommended by protocol; Using medical records review.</td>
<td>All tube-fed patients admitted to a 16 bed ICU, community hospital</td>
<td>Interdisciplinary collaboration and use of a protocol for blood glucose monitoring.</td>
</tr>
<tr>
<td>Lassen, Fosbinder, Minton &amp; Robins (1997)</td>
<td>Nurse-Physician Collaboration</td>
<td>Design – retrospective and prospective comparisons of patient charts one year prior to intervention, right after intervention, and then one year after intervention, for a 3 month period of time during each interval</td>
<td>Variables measured were: Quality of patient care; Costs; Length of stay, number of antibiotics received, and readmissions rates. Using medical records review.</td>
<td>350 bed tertiary hospital</td>
<td>Protocol development for management of R/O sepsis. Education of RNs and MDs for 3 months.</td>
</tr>
<tr>
<td>Jordan-Marsh, M., Hubbard, J., Watson, R., Hall, R., Miller, P., and Mohan, O. (2004)</td>
<td>Nurse-Physician Collaboration</td>
<td>Pre and post intervention data collection- total 14 quarters- 2-8 were implementation, 9-13 were maintenance</td>
<td>Variables measured were: Documentation of pain; Evaluation of effectiveness; Improved pain management measured as doses of analgesia; Improved pain management measured by analgesia type. Using Chart audit- (10% of charts each month); Pharmacy records of drugs dispensed to ward; and census.</td>
<td>Patients on a pediatric ward in a large urban hospital</td>
<td>Between 715 to 840 patient days per quarter</td>
</tr>
<tr>
<td>Kollef, M., Shapiro, S., Silver, P. St. John, R., Prentice, D., Sauer, S., Ahrens, T., Shannon, W., Baker-Clinkscales, D., (1997)</td>
<td>Nurse-Physician Collaboration</td>
<td>Randomized controlled trial during a 4 month period; stratification according to ICU site</td>
<td>Variables measured were: Duration on mechanical ventilation; Need for re-intubation; LOS; Hospital mortality rate; and cost. Using medical records review.</td>
<td>In MICU and SICU in 2 teaching hospitals; 4 units total</td>
<td>Protocol directed weaning of mechanical ventilation developed by Medical Director. Education of nurses and respiratory therapists before implementation.</td>
</tr>
<tr>
<td>Landefeld, CS., Palmer, R., Kresevic, D., Fortinsky, R., and Kowal, J. (1995)</td>
<td>Nurse-Physician Collaboration</td>
<td>Randomized Control Trial – randomly assigned to Acute Care Program for Elderly or usual care</td>
<td>Variables measured were: 17 different measures looking at Ability to perform ADLs – using different time frames, controlling for risk factors; plus LOS and costs. Using interviews, medical records and Universal Bill (1982).</td>
<td>&gt;70 yr, admitted to general medical unit</td>
<td>Daily review by medical director of meds and procedures; Daily rounds by multidisciplinary team, daily assessments by nurses; protocols to improve self care; Early, ongoing emphasis on returning to home</td>
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<tr>
<td>Henneman, E., Dracup, K., Ganz, T., Molayeme, O., Cooper, C. (2001)</td>
<td>Nurse-Physician Collaboration</td>
<td>Pre and post quasi experimental; compare patient outcomes 1 year before and 1 year after intervention;</td>
<td>Variables measured were: Length of time of mechanical ventilation; Length of time in the ICU; cost and complications. Using Medical records; Mortality rates, readmission rates to any ICU; Staffing patterns, years of experience of nursing and RT staff, and management choices.</td>
<td>8 bed MICU; no differences between control and experimental groups</td>
<td>Multidisciplinary rounds every morning; assess data and progress available medical record (both groups); Assessment data and weaning progress sheet &amp; flow sheet at patient’s bedside (intervention group).</td>
</tr>
<tr>
<td>Vazirani, Sondra et al (2005)</td>
<td>Nurse-Physician Collaboration</td>
<td>Quasi-experimental; 1 control and 1 intervention unit; over a 2 year period</td>
<td>Variables measured were: Collaboration with MDs; NPs, RNs; Communication; LOS; Cost and readmission rates. Using surveys of nurses (biannually); attending MD (every 2 weeks) and residents (every month)</td>
<td>2 Acute care inpatient medical units; no cross over between units with MDs or RNs; staffing and demographics of patients and nurses same btw units</td>
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<tr>
<td>Trey (1996)</td>
<td>Nurse-Physician Collaboration</td>
<td>Descriptive, retrospective</td>
<td>Variable measured was: Clarity of roles. Using Nurse manager’s report</td>
<td>Ambulatory care center of a large teaching hospital; Nurses, surgeons and anesthesia staff; No size given</td>
<td></td>
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<tr>
<td>Dechairo-Marino, Jordan-March, Traiger &amp; Saulo (2001)</td>
<td>Nurse-Physician Collaboration</td>
<td>Pre and post test, intervention study – Convenience sample; Surveyed at baseline and 1 month prior and 3 months after completion of interventions</td>
<td>Variables measured were: Perceived Collaboration scores and satisfaction with decision-making. Using Bagg’s Collaboration and Satisfaction about Care Decisions questionnaire (Adapted version)</td>
<td>RNs working on 3 medical-surgical units and 2 ICUs; 87 pretest 65 posttest; approx 50% response rate: 60% attendance rate for intervention</td>
<td></td>
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</tbody>
</table>

Appointment of a NP; Appointment of hospital medical director; Institution of daily multidisciplinary rounds 15 min per team.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Study Type</th>
<th>Description</th>
<th>Variables measured</th>
<th>Control Group</th>
<th>Intervention Group</th>
</tr>
</thead>
</table>
Control group (Unit Staff) - F/U Pretest and 6 months after intervention to explore penetration  
2 ICU units used - both had same leadership, staffing levels and technology.  
Unit A = 4 beds with only 11 diagnosis; 9 nurses; 3 MDs  
Unit B = 22 beds with 162 diagnosis; 38 nurses; 14 MDs  
10 Leaders for both Units  
Using Collaboration Skill Simulation Vignettes; ICU Nurse-Physician Questionnaire; and ICU Outcomes | 6 ICU units                   | 2 ICU units                                                                 |
| Wyly, M.V., Allen, M.A., Pzaizer, S.M. and Wilson, J.R. (1996)          | Nurse-Physician Collaboration | Descriptive Study of Quality Improvement project                            | Variables measured were: Satisfaction with workshop; and staff’s plan to use elements in their work. Using surveys.  
600 staff nurses                                                             | 2 day training workshop, creating a learning climate that facilitates participation  
Focused on interdisciplinary teams; High risk infant and family interventions in the NICU and through transition to community | 2 day training workshop                                                                 |
| Foley, M., Nespoli, G., Conde, E. (1997)                                | Nurse-Physician Collaboration | Pre and post test; control and intervention groups; tested 2 months after intervention; Convenience sample;  
66- total  
28 intervention group  
38 control group                                                            | Variables measured were: Communication skills with physicians and interactions with patients. Using Nurse-Physician-Patient Interaction/Communication Survey; Nurse-Physician-Patient Interaction/Communication Survey and demographics. | control group from 2 units, intervention group from another unit  
66- total  
28 intervention group  
38 control group                                                             | 2 day training workshop, creating a learning climate that facilitates participation  
Nurses engage in 2 different 15 minute videotaped case scenarios using standardized patients and standardized physicians week apart; rate themselves on a “Performance Assessment Checklist” | 2 day training workshop, creating a learning climate that facilitates participation |
<table>
<thead>
<tr>
<th>Study</th>
<th>Nurse-Physician Collaboration</th>
<th>Study Design</th>
<th>Variables Measured</th>
<th>Setting</th>
<th>Participants</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narasimhan, M., Eisen, L., Mahoney, C., Acerra, F., Rosen, M. (2006)</td>
<td>Prospective, quasi-experimental, with testing at baseline, 1 week, 6 weeks, 9 months after implementation of intervention</td>
<td>Staff's level of understanding goals for the day; communication; desire to continue to use worksheet; and belief the worksheet had a positive effect on patient outcomes. Using surveys.</td>
<td>16 bed MICU, closed unit RNs- BL-21 6 wk- 14 9 mo- 18 MDs- BL- 12 6 wk- 14 9 mo- 17 Response rate not given</td>
<td>Daily work included consent, medical sedation, analgesia, nutrition, mobilization, family discussion, disposition part of Medical Record</td>
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<tr>
<td>Lorenzi, E. (1993)</td>
<td>Single group pre and post test design, repeated measures at baseline, 3 months and 6 months</td>
<td>Job satisfaction; Level of nurse/physician collaboration; broad knowledge base of sickle-cell; and demographics variable (years of experience and present employment status). Using knowledge based test, job satisfaction tool and surveys</td>
<td>42 eligible 18 participants 40% response rate</td>
<td>Education program for nurses; 10 hours of sickle cell disease process, treatments and relaxation techniques; Implementation of a comprehensive guideline for the care of sickle cell patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liedtka, J., Whitten, E. (1998)</td>
<td>Post intervention survey</td>
<td>Differences and similarities of Nurses’, Physicians’, and Administrators perceptions of factors correlated with successful collaboration. Using questionnaires and interviews.</td>
<td>Large, Academic health center, 3 service lines, and 3 professions surveyed</td>
<td>Organizational restructure to service line Implementation of a new organizational structure, has non-professionals report to unit managers instead of central department</td>
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</table>
Table #2

Key elements differentiating a working group from a team (Katzenbach & Smith, 2005).

<table>
<thead>
<tr>
<th>Working group</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Strong, clearly focused leader</td>
<td>➢ Shared leadership roles</td>
</tr>
<tr>
<td>➢ Individual accountability</td>
<td>➢ Individual and mutual accountability</td>
</tr>
<tr>
<td>➢ The group’s purpose is the same as the broader organizational mission</td>
<td>➢ Specific team purpose that the team itself delivers</td>
</tr>
<tr>
<td>➢ Individual work products</td>
<td>➢ Collective work products</td>
</tr>
<tr>
<td>➢ Runs efficient meetings</td>
<td>➢ Encourages open-ended discussion and active problem-solving meetings</td>
</tr>
<tr>
<td>➢ Measures its effectiveness indirectly by its influence</td>
<td>➢ Measures performance directly by assessing collective work products</td>
</tr>
<tr>
<td>➢ Discusses, decides and delegates</td>
<td>➢ Discusses, decides and does real work together</td>
</tr>
</tbody>
</table>

Table #3

Scopes of practice for health care professionals in Minnesota
[in separate attachment]

Table #4

Characteristics of effective clinical Microsystems (Nelson, 2002)

Leadership
Organizational support
Staff focus
Education & training
Interdependence of the care team
Patient focus
Performance results
Process improvement
Information and information technology
Table #5

*Recommendations for preventing and managing disruptive behavior in health care organizations* (The Joint Commission, 2008)

1. Educate all team members – both physicians and non-physicians – on appropriate professional behavior defined by the organization’s code of conduct
2. Hold all team members accountable for modeling desirable behaviors, and enforce the code consistently and equitably among all staff
3. Develop and implement policies and procedures/processes to address
   a. Zero tolerance for intimidating and/or disruptive behaviors
   b. Medical staff policies regarding intimidating and/or disruptive behaviors
   c. Reducing fear of intimidation or retribution
   d. Responding to patients/families who witness or are involved in intimidating and/or disruptive situations
   e. How and when to begin disciplinary actions
4. Develop an organizational process for addressing intimidating and/or disruptive behaviors
5. Provide skills-based training and coaching for all leaders and managers
6. Develop and implement a system for assessing staff perceptions of the seriousness and extent of instances
7. Develop and implement a reporting surveillance/system
8. Support surveillance with tiered, non-confrontational interventional strategies
9. Conduct all interventions within the context of an organizational commitment to the health and well-being of all staff
10. Encourage inter-professional dialogues across a variety of forums
11. Document all attempts to address intimidating and disruptive behaviors.
Table #6

*Criteria for full engagement of interprofessional education* (Barnsteiner et al, 2007)

1. Explicit philosophy of IPE that permeates the organization. The philosophy will be well-known, observable, measurable.
2. Faculty from the different professions co-creating the learning experiences.
3. Students having integrated and experiential opportunities to learn collaboration, teamwork, and how it relates to the delivery of safe, quality care delivery.
4. IPE learning experiences embedded in the curricula and part of the required caseload for students.
5. Demonstrated competence by students with a single set of interprofessional competencies such as those promoted by the IOM.
6. Organizational infrastructure that fosters IPE, such as support for faculty time to develop IPE options, incentive systems for faculty to engage in IPE, and integrated activities across schools and professions for students and faculty.
GLOSSARY

**ACT** (Achieving Competence Today) - an interdisciplinary teaching program that focuses on quality, safety and health systems improvement

**Call-out** – technique for communicating important or critical information by intentionally verbalizing a step in a process

**Care coordination** – an interdisciplinary approach to the care of a patient

**Check-back** - a process that uses closed-loop communication to ensure that information conveyed by the sender is understood by the receiver as intended

**Collaboration** - process of joint decision making among independent parties involving joint ownership of decisions and collective responsibility for outcomes. The essence of collaboration involves working across professional boundaries

**Committee** – a relatively stable, formally composed group that has an identified purpose as part of an organizational structure

**Communication** - a process by which information is exchanged between individuals through a common system of symbols, signs or behavior

**CRM** (Crew Resource Management) – a training program to improve team functioning in high stakes industries such as aviation, nuclear power and health care

**Delegation** – process of transferring authority to a competent individual for completing selected nursing tasks/activities/functions. To assign is to direct an individual to do activities within an authorized scope of practice. Assignment (noun) describes the distribution of work that each staff member is to accomplish in a given work period

**Disruptive behavior** - behavior that interferes with the ability of everyone on the team to provide safe and effective care; undermines the confidence of any member of the healthcare team in effectively caring for patients; undermines patients’ confidence in the healthcare team or organization; causes concern for anyone’s physical safety, and undermines effective teamwork

**Group** – any collection of interconnected individuals working together for some purpose

**Handoff** – a time when information is transferred, along with authority and responsibility, during transitions in care across the continuum and includes an opportunity to ask questions, clarify, and confirm responses

**Interdisciplinary teams** - individuals from at least two different disciplines who coordinate their expertise to deliver care to patients
Interprofessional team – a team made up of individuals from at least two distinct professions or disciplines

Microsystem - small, functional, front-line units that provide most health care to most people. They are the essential building blocks of larger organizations and of the health system. They are the place where patients and providers meet. The quality and value of care produced by a large health system can be no better than the services generated by the small systems of which it is composed

Partnership – an explicit relationship with clear roles and responsibilities between two people who share a common goal or vision

Productive pairs - individuals who come together and develop a partnership to accomplish a shared goal

SBAR (Situation, Background, Assessment and Recommendation) – a structured communication framework that helps health care providers clearly, consistently and succinctly communicate pertinent information about patient care situations

Task force – a group convened to accomplish a specific objective within a designated period of time

Team – a small number of consistent people committed to a relevant shared purpose,

TeamSTEPPS™ (Team Strategies and Tools to Enhance Performance and Patient Safety) – a training program developed by the Department of Defense and AHRQ that consists of content and exercises on leadership, situation monitoring, mutual support and communication. It has been widely used outside of health care and, increasingly, within health care settings

Teamwork - a joint action by two or more people, in which each person contributes with different skills and expresses his or her individual interests and opinions to the unity and efficiency of the group in order to achieve common goals

TOPS (Triad for Optimal Patient Safety) - a multidisciplinary training program
RESOURCES

Agency for Healthcare Research and Quality [www.ahrq.gov]


*Developing Health Care Teams*: [www.ahc.umn.edu/tf/ihtd.html]

Cochrane Collaboration Library [www.cochrane.org]

Critical Appraisal Skills Program [www.phru.org.uk/cosp]


*The Geriatric Nurse Education Consortium's “Models of Care and Interdisciplinary Care Related to Complex Care of Older Adults* 2007. Washington DC: AACN. Also available at [www.aacn.nche.edu/gnec.htm]

Health Care Teams [www.learningcenter.net/library/health.shtml]

Health Information Resources [http://www.library.nhs.uk]

Healthy Work Environments [www.aacn.org/WD/HWE/Content/hwehome.pcms?menu=Community]

Institute for Healthcare Improvement [www.ihi.org]

Institute of Medicine [www.iom.edu]

Quality and Safety Education in Nursing [www.qsen.org]

STTI Henderson Library [www.nursingsociety.org]

teamSTEPPs [http://teamstepps.ahrq.gov]

The Joint Commission [www.jointcommission.org]

This ready-to-use toolkit includes a spiral-bound Implementation Guide that explains how to implement proper handoff communication processes and techniques, with case studies on effective handoff programs. The accompanying CD-ROM contains more than 40 additional tools and resources to help organizations create or improve their patient handoff process, including practical forms, slide presentations, handouts, and video clips.

Team building games: http://www.businessballs.com/teambuildinggames.htm


Teamwork and Collaboration References


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