

Commentary

TeamSTEPPS: Assuring Optimal Teamwork in Clinical Settings

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Although teams play an important role in the delivery of health care in virtually every setting, effective teamwork is not a given but a goal that requires training and cultivation. Paul M. Schyve, MD, senior vice president of The Joint Commission (formerly JCAHO, the Joint Commission on Accreditation of Healthcare Organizations), has observed, "Our challenge . . . is not whether we will deliver care in teams but rather how well we will deliver care in teams."¹ In a recent article, Frankel and colleagues noted, "Currently, we can assure our patients that their care is always provided by a team of experts, but we cannot assure our patients that their care is always provided by expert teams."²

For more than 20 years, the Agency for Healthcare Research and Quality (AHRQ) has collaborated with the Department of Defense (DoD), which encompasses one of the largest health care delivery systems in the world, to explore the field of medical teamwork. Recently, the 2 agencies announced the availability of an outstanding new resource for training health care providers in better teamwork practices: TeamSTEPPS, which stands for Team Strategies and Tools to Enhance Performance and Patient Safety.

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The new training package capitalizes on the DoD's expertise in medical and nonmedical team performance and AHRQ's extensive research in the fields of patient safety and health care quality. Following extensive field testing in the military health system (MHS) and several civilian organizations, a multimedia TeamSTEPPS toolkit was recently made available, via the public domain, to civilian health care facilities and medical practices. (Details on how to obtain the toolkit appear at the conclusion of this commentary.)

Background: Teamwork and Team Training in Health Care

Teamwork is the focus of increased attention in health care. This attention is based on the growing realization of its importance in promoting high-quality care and preventing medical errors. In large part, this is the result of the publication of the Institute of Medicine's (IOM's) report, *To Err Is Human: Building a Safer Health System*.³ One of the principal findings of that report was that systemic failures in the delivery of health care account for more errors than does poor performance by individuals.

Because systemic successes and failures depend to a great extent on the performance of teams, it was not surprising that the IOM recommended interdisciplinary team training to reduce the incidence of medical errors. Echoing a central message of the IOM report, Leonard and colleagues observed, "Effective teamwork and communication prevent . . . inevitable mistakes from becoming consequential and harming patients and providers."⁴ John M. Eisenberg frequently observed that "patient safety

is a team sport.”⁵ It is hard to imagine a winning team composed of individuals with complementary and essential skills who have not practiced working together, yet health professional training has historically been isolated within disciplinary silos.

The good news is that since the IOM report, a variety of other health care organizations have taken action to support improved teamwork and team training. For example, the Accreditation Council for Graduate Medical Education has identified “interpersonal and communication skills” as 1 of 6 core competencies of graduate medical education, requiring residents to demonstrate skills that “result in effective information exchange and teaming with . . . professional associates.”⁶ A number of medical specialties, including emergency medicine, obstetrics, and anesthesiology, also have developed tools to enhance team performance.

Another factor contributing to heightened recognition of the importance of teamwork has been The Joint Commission’s continued emphasis on the need for effective communication among clinicians to assure patient safety; for example, the commission’s 2007 National Patient Safety Goals call for action to “improve the effectiveness of communication among caregivers.”⁷

Optimal teamwork does not automatically result from putting a group of professionals together in one place. It typically requires planning, cultivation, training, and practice. A science of teamwork has evolved over the past 2 decades, and the military and “high-risk” industries such as nuclear power and commercial aviation have embraced formal team training based on this science.

For a number of reasons, however, the field of health care has been slower to adopt the science of teamwork. Health care professionals are rarely trained together. Instead, they are trained to function as individuals in hierarchical arrangements. Alonso and colleagues describe a common situation where these factors produce friction in medicine⁸:

Nurses are trained to work as managers of situations and are often the most knowledgeable about patients, necessitating that they be the lead in treatment situations. Physicians, however, bear the ultimate responsibility for treatment of patients and are taught in medical school to lead treatment situations. This distinction alone can lead to frayed relationships in a team environment and faulty treatment.

The intent of TeamSTEPPS is to overcome such obstacles by promoting a harmonious, cooperative team environment.

General Design of TeamSTEPPS

TeamSTEPPS offers a flexible, evidence-based toolkit to improve patient safety through enhanced communication and other teamwork skills. The program is not just a 1-shot training session that any health care provider can implement; integrating teamwork principles into practice involves much more than a single learning session. Typically, TeamSTEPPS initiatives occur in 3 continuous phases: (1) assessment; (2) planning, training, and implementation; and (3) reinforcement and sustainment.

To develop TeamSTEPPS, an expert panel leveraged 20 years of research and lessons learned from the military and industrial sectors, with input from more than 35 health care organizations. TeamSTEPPS can be tailored to any medical setting or specialty. The curriculum was developed to meet the overall needs of both military and civilian health care organizations. It was designed to train health care professionals who work not only in high-stress situations, such as surgical suites, emergency departments, and intensive care units, but also in any setting where communication and teamwork are important, including physicians’ offices and ambulatory care clinics. The TeamSTEPPS toolkit provides a road map for promoting a stronger culture of patient safety and quality care.

The TeamSTEPPS curriculum is research-based and has been extensively field-tested in the MHS. Ultimately, it will be implemented throughout all military treatment facilities. At present, the MHS provides health services to more than 9.3 million beneficiaries worldwide.

TeamSTEPPS offers a multifaceted, multimedia instructional model including classroom teaching, PowerPoint presentations, videos, role playing, case studies, coaching exercises, and a handy pocket guide. Based on a “train-the-trainer” model, the TeamSTEPPS toolkit is readily adaptable to the needs and circumstances of individual health care delivery systems of all sizes and even to those of individual teams.

Those who developed TeamSTEPPS were acutely aware that team training takes place in environments

in which clinicians have very little free time and might be reluctant to participate in training activity. Because of this, the TeamSTEPPS curriculum is arranged to make the most efficient use of clinicians' time and should ultimately lead to a safer, more effective work environment.

Those who designed the toolkit recognized the need for the reinforcement of lessons learned in TeamSTEPPS and provided simple tools such as mnemonics and checklists. A condensed pocket guide offers further support by reinforcing the use of core tools and strategies. As refresher training, the curriculum can be presented in its entirety, as individual modules, or as a single teamwork tool.

Emphases of TeamSTEPPS

TeamSTEPPS promotes competency in 4 core areas:

- Team leadership—the ability to direct and coordinate activities of team members, assess team performance, assign tasks, develop team knowledge and skills, motivate team members, plan and organize, and establish a positive team atmosphere.
- Situation monitoring (or mutual performance monitoring)—the capacity to develop common understandings of the team environment and apply appropriate strategies to monitor teammate performance accurately.
- Mutual support (or backup behavior)—the ability to anticipate other team members' needs and to shift workload among members to achieve balance.
- Communication—including the efficient exchange of information and consultation with other team members including the patient.

The TeamSTEPPS toolkit is meant to encourage situational awareness and communication by all members of the team and to foster mutual respect among team members regardless of their roles. It is based on the concept of "just culture," which promotes input from all members of the team; irrespective of their perceived positions, all have an obligation to voice patient safety concerns. TeamSTEPPS promotes an environment of open communication where everyone, including the patient, is made to feel comfortable speaking up, regardless of the situation or the complexity of the procedure.

Among the lessons learned during the development of TeamSTEPPS, the following stand out:

- A preliminary assessment is an important element of the implementation process.
- It is essential to engage senior leadership and obtain buy-in before beginning the training.
- A patient safety initiative like this should be simplified as much as possible in the recognition that the health care system is already overburdened.
- Definitive metrics are needed for all levels of evaluation of team training.
- After completion of the training, ongoing coaching and monitoring are necessary to reinforce teamwork behaviors.

Availability of the TeamSTEPPS Toolkit

Agency for Healthcare Research and Quality and DoD are making the TeamSTEPPS toolkit available to a broad audience through several avenues. First, it can be viewed on the Web site of DoD's Uniformed Services University of the Health Sciences (USUHS), <http://www.usuhs.mil/cerps/teamstepps.html>. Second, single copies of the electronic version (a CD-ROM and DVD plus the pocket guide) are available at no charge from the AHRQ Publications Clearinghouse (1-800-358-9295 or e-mail: ahrqpubs@ahrq.hhs.gov). Third, a limited number of assembled toolkits, including the CD, DVD, and the printed materials in a 3-inch loose-leaf binder, can be obtained through the AHRQ Publications Clearinghouse at cost. It is also possible to place bulk orders for the pocket guide. Recognizing the enormous promise of TeamSTEPPS, AHRQ and DoD are committed to assuring that the new team training resource receives the widespread, high-level attention it deserves and that the toolkit is made available and adopted in as many health care settings as possible nationwide. We urge you to learn more about TeamSTEPPS by visiting the USUHS Web site and to consider implementing TeamSTEPPS to promote a culture of teamwork and safety in your practice.

REFERENCES

1. Schyve PM. Editorial: The changing nature of professional competence. *Jt Comm J Qual Patient Saf.* 2005;31:185-202.
2. Frankel AS, Leonard MW, Denham CR. Fair and just culture, team behavior, and leadership engagement: the tools to achieve high reliability. *Health Serv Res.* 2006;41:1690-1709.

3. Kohn LT, Corrigan JM, Donaldson MS, eds. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.
4. Leonard M, Graham S, Bonacum D. The human factor: the critical importance of effective teamwork and communication in providing safe care. *Qual Safe Health Care*. 2004;13:85-90.
5. Clancy CM. Quality is the goal for patient safety and health IT. Paper presented at 2005 Annual Patient Safety and Health IT Conference—Making the Health Care System Safer Through Implementation and Innovation; June 8, 2005; Washington, DC. Available at: <http://www.ahrq.gov/news/sp060805.htm>.
6. Accreditation Council on Graduate Medical Education. Outcome project: Assessing residency education through outcomes assessment. Available at: <http://www.acgme.org/Outcome>. Accessed January 24, 2007.
7. The Joint Commission. 2007 Disease-specific care national patient safety goals. Available at: http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/07_dsc_npsgs.htm. Accessed January 24, 2007.
8. Alonso A, Baker DP, Holtzman A, et al. Reducing medical errors in the military training system: how can team training help? *Hum Resource Manage Rev*. 2006;16:396-415.