Chapter 8 New Standards for Teamwork: Discussion and Justification

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The sum total of medical knowledge is now so great and wide-spreading that it would be futile for any one man…to assume that he has even a working knowledge of any part of the whole….The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge, union of forces is necessary….It has become necessary to develop medicine as a cooperative science; the clinician, the specialist, and the laboratory workers uniting for the good of the patient, each assisting in elucidation of the problem at hand, and each dependent upon the other for support.

William J. Mayo, 1910

The Study of Teamwork in Health Care

A growing interest in team approaches to health care has been fostered by trends in health care delivery, including changes in organization; increasing specialization and division of labor; a need for coordination of comprehensive, cost-effective, population-based, and patient-focused care; and a growing interest in prevention and ongoing management of chronic conditions.[1–4] For health professionals, teamwork offers the benefits of enhanced professional satisfaction and a change in emphasis from acute, episodic care to management and prevention. Teamwork also encourages innovation and quality improvement in health care.[2–4]

Teamwork in health care has been described and studied for several decades. In a classic study done in the 1970s, Bosk[5] described how surgical teams decentralize authority, make decisions, and develop value systems related to their work. Coordination of teamwork in health care settings often depends on direct communication and informal rules in the immediate care environment. This contrasts with formal bureaucratic rules in other settings and makes teams vulnerable to changes in health care leadership and context.[6,7] In 1975, themes in the literature on teams in health care encompassed status, power and authority, roles and professional domains, and decision making and communication; and these still are dominant themes in the research on health care teams. Areas of emphasis more recently added include patient-centered approaches to care[8–10] and clinical microsystems as the organizing framework for health care delivery.[11,12] The term clinical microsystem refers to a small health care work unit that provides care to a defined group of patients. Microsystems consist of a small team of people, a local information system, and a set of work processes.[11]

Benefits of Teamwork

The 2001 Institute of Medicine report entitled ''Crossing the Quality Chasm''[13] references the importance of teamwork in realizing 6 aims for the health care system. Those 6 aims call for care to be as follows:

- Safe: Avoid injuries to patients from the care that is intended to help them.
- Effective: Match care to science; avoid overuse of ineffective care and underuse of effective care.
- Patient-Centered: Honor the individual and respect choice.
- Timely: Reduce waiting for both patients and those who give care.
- Efficient: Reduce waste.
- Equitable: Close racial and ethnic gaps in health status.

A few empirical studies that have examined teamwork and clinical outcomes have found evidence of benefit. A Cochrane systematic

review[14] of the benefits of teamwork in 2007 found that practice-based interprofessional team interventions improve health care delivery and outcomes, but the small number of studies, small sample size, and challenges in measuring collaboration made it difficult to generalize about the elements of teamwork that were responsible for these positive effects. A review of the literature on the benefits of team approaches from 1985 through 2004 found that the diversity of clinical expertise involved in team decision making may account for improvements in patient care and organizational effectiveness, while collaboration, conflict resolution, participation, and cohesion may enhance team member satisfaction and perceptions of team effectiveness.[15] A study of safety factors and surgical outcomes in 52 teaching hospitals found that high levels of faculty and resident communication and collaboration were associated with lower risk-adjusted morbidity for surgical patients.[16] In another study,[17] intensive care unit nurses' reports of collaboration were associated positively with patient outcomes.

The New Teamwork Standards

The ACGME standards promote teamwork as beneficial to patient safety and to the professional development and formation of the resident. In addition to the standards below, the sections on transitions of care emphasize teamwork in transmitting information and collectively managing the care of patients.

> [Residents are expected to] work effectively as a member or leader of a health care team or other professional group.

> [Residents are expected to] work in interprofessional teams to enhance patient safety and improve patient care quality.

The first standard defines residents' roles as members or leaders of health care teams or similar groups, while the second section expands existing expectations for resident representation on hospital quality improvement committees to include active resident participation on quality and safety teams. Systematic approaches to enhance quality and safety in health professions education, including changes in curricula and organizational culture, and assessing outcomes at the individual and program level, have been recommended for a number of years.[18] The literature on educational approaches to teach residents how to improve quality and safety has demonstrated that ongoing, active involvement in quality improvement efforts is superior to didactic methods and short-term quality or safety electives.[18,19] Popular approaches for applied teaching of quality improvement include incorporating quality improvement principles into morbidity and mortality conferences, morning report, and clinical case conferences.[20–23] Recent efforts have focused on closer integration between didactics and applied approaches to teaching practice-based learning and improvement and systems-based practice, with a particular emphasis on quality and safety.[24–27]

> Residents must care for patients in an environment that maximizes effective communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty.

> The program director must ensure that residents are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.

These standards define attributes of the environment for resident teamwork and collaboration and cooperation, with the aim of creating a system in which residents manage information and care decisions collectively and with other health professionals.[28] Implementation of these standards will necessitate, and likely contribute, to a change in the culture in settings where residents participate in patient care.

Implementing Teamwork in Teaching Settings: Models and Challenges

The IOM report ''Crossing the Quality Chasm''[13] did not offer specific guidance for how to implement teamwork in patient care settings. Two exceptions are the reference to clinical microsystems[9,10] and the statement asserting that redesign of the immediate work units that provide care will be required to ensure that care is knowledge based, patient centered, and systems minded.[11] Practical interpretations and companion documents to the report also do not offer advice on how to make health care more team oriented, but rather offer visions of a new system in which cooperation among clinicians is a priority.[29] A theoretic discussion of physicians' education and professional development related to teamwork postulated that the knowledge, skills, and attitudes to enhance team work can be taught and assessed.[30] A review of team training interventions found that curricula used in team training for residents and medical students use sound educational principles and appear to be modestly effective and that the effectiveness of interventions is enhanced when curricula cover several dimensions of teamwork.[31]

Teams can be effective catalysts for organizational change.[32] In teaching settings, care teams are made more complex by professional role boundaries and interprofessional relations and by how team activities are influenced by technology and the care environment. An added challenge for teams that include residents is that much of the research on teams has focused on stable teams, yet many health care teams are temporary, coming together for brief periods, ranging from the time spent caring for a given patient to the 30-day time frame of a clinical rotation. The implementation of the new teamwork standards will need to be mindful of these teams' temporary nature.

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