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ABSTRACT

The issue of physician professionalism has grown in importance in recent years, in part because of perceptions that our rapidly changing health care system and the incentives associated with managed care threaten professionalism. Inherent conflicts between physician professionalism and the financial and non-financial incentives used by health care organizations in quality management may be undermining the effectiveness of quality improvement initiatives. This paper examines the role of system redesign in quality improvement and the implications of a systems approach for physician job satisfaction, professionalism, and the quality of patient care. We contend that a systems perspective may be more compatible with physician professionalism and may be a more effective method of quality improvement that could alleviate some of the resistance that accompanies the implementation of quality improvement efforts. Disease management programs and multidisciplinary patient care teams are discussed as examples of potentially useful system-level interventions.

INTRODUCTION

In recent years, the issue of professionalism among physicians has been the central focus of numerous national and international medical conferences, medical journal publications, and public initiatives by professional organizations.¹ Concern by these organizations

over the effects of a changing US health care delivery system on physicians' primary dedication to patients has spawned a call for renewed commitment to the principles of the primacy of patient welfare, patient autonomy, and social welfare.² In part, this professionalism "movement" has been motivated by perceived negative effects of organizational efforts to manage quality (and cost) on the ability of physicians to serve as advocates for their patients.³ In the current era in which competition between health care organizations is increasingly based on reducing inappropriate variations in care⁴ while improving quality of care and patient satisfaction,⁵ it is important to reconcile the concept of medical professionalism with quality improvement efforts in order to improve physician acceptance of the quality improvement process.

There has been increasing recognition that quality medical care is a property of systems, not just of individuals. In 2001, the Institute of Medicine issued its report on health care quality, *Crossing the Quality Chasm*, which stressed the importance of system design in creating health care environments that are both safe and that produce quality health-related outcomes.⁶ Human factors engineering (a concept adapted from the field of industrial engineering), which promotes system design as a method to improve the interactions between the worker and the work environment, is increasingly used to address issues of worker efficiency and safety. Systems design has also been identified as an important component of quality improvement and patient safety. Research has shown systems improvement that decreases reliance on individual memory and attention decreases error rates and improves quality of care.⁷ This systems approach to changing physician behavior may not only be a more effective approach, but may also be better accepted by physicians than the traditional incentive approach. Furthermore, this approach may be more reconcilable with the concept of

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physician professionalism because of its more indirect effects on physician behavior.

In this paper, we examine the tension between physician professionalism and the incentives (financial and non-financial) that currently predominate in quality management efforts. We examine the roles of system redesign in quality improvement and discuss the implications of a systems approach to quality management for physician job satisfaction, professionalism, and the quality of patient care.

PHYSICIAN PROFESSIONALISM

The concept of professionalism implies that professionals are bound by the ethics of their professions to serve in their clients' best interests. Professionals are drawn to their professions because of an altruistic desire to serve, and this altruism restrains them from responding primarily to their own economic self-interest. They are also embedded in a community of peers with similar altruistic intentions and values that serve to further restrain their self-interest.⁸ The idea of physician professionalism dates back to the Hippocratic oath, which instructed physicians to practice medicine for "the benefit of patients and abstain from whatever is deleterious and mischievous."³ Patient trust in the physician-patient relationship is based on the idea that physicians have responsibility and control over medical decision-making and prioritize the needs of patients over all other considerations.⁹

According to this theory on professions, the physician is the central force from which healing power originates and is controlled. From this philosophy stems great responsibility and great respect. However, it has been noted that physician professionalism also fosters a "culture of blame" when things go wrong because, if physicians are responsible for the entirety of the medical process, then they are also exclusively to blame for poor quality care.¹⁰ It is this desire to maintain autonomy and responsibility related to professional status that may, in part, explain physician resistance to incentives connected with quality improvement efforts.

AGENCY THEORY AND THE ROLE OF INCENTIVES

Multiple and sometimes conflicting organizational incentives have created a sense among physicians that their role as professionals may be threatened.¹¹ These organizational incentives include financial as well as non-financial incentives to manage utilization, decrease inappropriate variations in care, encourage evi-

dence-based practice of medicine, and increase productivity. Examples of these incentives include salary withholdings and bonuses, utilization review, practice guidelines, treatment reminders and prompts, and peer comparisons.¹² These incentives are increasing in prevalence and in influence: a study of the arrangement that physicians make with managed care organizations demonstrated that extensive utilization review occurred in 62% of physician practices, 63% of physicians used practice guidelines, and 68% received personalized profiles of their practice patterns.¹³ These incentives, which are often viewed as a form of bureaucratic control, may be resented by practicing physicians who see control and authority over their practice decisions as their professional responsibility. As a result, these incentives have often been less than fully successful in motivating actual changes in physician behavior. Even with additional training and incentives, changing physician behavior is recognized as a very difficult process.¹⁴

The role and power of these incentives—as well as physicians' resistance to them—can be explained by agency theory. Agency theory was developed in the context of corporate interactions to describe the relationship between those who contract for services ("principals") and those who perform such services ("agents"). This theory has been applied in the health care setting to describe the interactions between health care organizations (i.e., principals) and physicians (i.e., agents).¹⁵ Agency theory says that financial and non-financial incentives are offered by principals in order to induce behaviors in agents that are consistent with the goals of the principal.¹⁶ These incentives cause physicians to balance the interests of their patients with another set of interests, namely the interests of the organization with which the physicians are associated. This concept has been coined "double agency" and refers to the tension between these different influences and loyalties.³ Because physician professionalism suggests that physicians should act as "perfect agents" for their patients by holding patient goals paramount,³ the uncomfortable balance of having to act as agent for both patients and organizations may explain some of the physician resistance to organizational incentives.

There is growing distress among physicians, which appears largely related to the incentives present in medical practice associated with managed care. And this distress may be contributing to the growing crisis of confidence in physicians among patients⁹ as well as to increased career dissatisfaction among physicians in-

volved in managed care.¹⁷ Furthermore, the inherent conflicts between organizational incentives and physician professionalism may undermine effectiveness of health care organizational quality improvement initiatives. For these reasons, a new approach to managing medical practice and physician behavior is needed. A systems perspective, which focuses on the structure of health care, health care processes, and the interface between workers and the work environment, may be more compatible with physician professionalism than are direct incentives. It may also be a more effective method of quality improvement and may help to improve physician acceptance of organizational change efforts.

A SYSTEMS PERSPECTIVE

The Institute of Medicine, in its report *Crossing the Quality Chasm*, called on health care organizations to take a systematic approach to quality improvement.⁶ The report pointed to evidence that systems changes can effectively change practice and improve health care quality by reducing medical errors and decreasing inappropriate variations in care. While the safety and efficiency arguments are convincing, it is becoming increasingly apparent that system redesign may also help physicians to improve their worklives and better meet their patients' needs while functioning within the required constraints of a health care organization.¹⁸

Human factors engineering, which focuses on system redesign to optimize the interactions between workers and their work environments, has been incorporated into the thinking of health care organizations in recent years. For example, human factors engineering has been employed in anesthesiology in the development of "engineered safety devices" such as a system of gas connectors that does not allow a gas hose or cylinder to fit the wrong site. This type of advance, combined with new technologies, standards and guidelines, and an emphasis on a "culture of safety" has helped to dramatically decrease the rate of death due to anesthesia.¹⁹

Efficiency in health care has similarly been helped by systems improvements. The enormous expansion of knowledge and technology in medicine in recent years has made it impossible for physicians to apply all available preventive screening, convey all known information about relevant medical conditions, and provide all available treatments for each patient in the increasingly limited time available for an individual office appointment. This situation, in which physicians find themselves on a hypothetical treadmill and "running faster

just to stand still," has been referred to as "hamster health care."¹⁸ Systems redesign such as computerized screening protocols and electronic communications may relieve the physician of some of the less demanding functions of health care and therefore save time for more meaningful patient care.

Quality improvement efforts that incorporate system redesign may also be more successful in changing physician behavior, maintaining physician job satisfaction, and preserving physician professionalism than traditional incentive approaches. System redesign, which is based on the idea of making it "easy to do things right and hard to do things wrong" may be a more indirect, easier approach to changing physician behavior.¹⁰ Well-designed systems may be less resented than direct financial and non-financial incentives set forth by health care organizations. Often, systems changes are quite invisible, so they are not in conflict with physician autonomy and control. However, involvement of physicians in the process of system design is important to both the success of the system and to physician acceptance.¹⁰ Maintenance of a sense of job control and participation in the process of organizational change may improve physician acceptance of and adherence to organizational quality improvement programs.¹¹

NEW APPROACHES

There have been a number of developments in the way that health care is provided that focus on incorporating a systems approach to quality improvement. These approaches, including disease management programs and collaborative multidisciplinary patient care teams, have largely been developed by organizations looking for ways to provide quality health care while balancing the needs of physicians, patients, and health care organizations.²⁰ While still in the early stages of development and evaluation, these approaches show great potential for incorporating a systems approach to health care while preserving physician professionalism.

Disease Management Programs

Disease management is a concept that first appeared in the US health care field approximately 15 years ago. It is a system for managing chronic conditions at a health care system level in order to improve the effectiveness and efficiency of care across the continuum of care. High prevalence, high cost conditions are selected. Disease maps and care maps are established to determine how the disease is managed within the health care

organization and what drives the costs of care. The most expensive and highest risk patients are identified and interventions to improve care for these patients are evaluated. The programs are monitored and adjusted as necessary using a continuous quality improvement framework. Some examples of these successful disease management programs include focused discharge planning and post-discharge care for patients with congestive heart failure,²¹ intensive monitoring, education, and follow-up for diabetes mellitus by nurses and nurse case managers,²² and tertiary prevention of coronary heart disease risk factors.²³

Disease management programs take advantage of system-level analyses to identify the need for interventions and implement changes in the structure and processes of care around certain high-prevalence, high-cost diseases. Interventions may include physician incentives such as education, bonuses, and profiles, but these incentives are established as only a part of multiple interventions contributing to system redesign.²⁴ The responsibility for management of the condition is therefore spread more equally across the many participants in the delivery of health care—physicians, other practitioners, employees more indirectly involved in patient care (e.g., receptionists, administrators, other clinic personnel), and patients.²⁵ If implemented well, disease management programs should improve physician worklife through better coordination and support of care.²⁶

Multidisciplinary Patient Care Teams

The development of multidisciplinary patient care teams within health care organizations takes advantage of system-level work redesign to provide effective health care. These teams have been especially effective for managing the health care of patients with chronic diseases.²⁷ By taking advantage of team members' individual skill sets, patient care teams can create a system-level health care delivery system in which individuals' roles and functions are optimized and effectiveness of care is maximized. This type of quality improvement intervention has the potential to improve care through population management, protocol-based regulation of medication, self-management support, and intensive follow-up.²⁷ Similar to other system-level approaches, this type of quality improvement effort does not take away from the professional role of physicians or create pressure on physicians to change the way they practice medicine with financial incentives or negative consequences for non-compliance. Instead, these teams create a collaborative, positive environment to supplement

physician expertise in the day-to-day management of chronic illness.

CONCLUSIONS

Incorporation of a systems perspective into quality improvement efforts may help improve physician acceptance of quality management activities and decrease the tension between these activities and physician professionalism. Establishment of disease management programs and multidisciplinary patient care teams are examples of system-level interventions that may be effective in improving quality while preserving physician professionalism. More research is needed to determine which system-level interventions are most effective and to what extent these interventions truly have positive effects on physician job satisfaction, physician attitudes toward quality improvement efforts, and ability of physicians to maintain a sense of professionalism.

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REFERENCES

1. American Board of Internal Medicine Foundation. The medical professionalism project and the physician charter, 2003. Available at www.abimfoundation.org/professional.html. Accessed April 27, 2004.
2. Medical professionalism in the new millennium: A physician charter. *Ann Intern Med.* 2002;136(3):243-246.
3. Shortell SM, Waters TM, Clarke KW, et al. Physicians as double agents: maintaining trust in an era of multiple accountabilities. *JAMA.* 1998;280(12):1102-1108.
4. Wennberg DE. Variation in the delivery of health care: the stakes are high. *Ann Intern Med.* 1998;128(10):866-888.
5. Enthoven AC, Vorhaus CB. A vision of quality in health care delivery. *Health Aff (Millwood).* 1997;16(3):44-57.
6. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, D.C.: National Academy Press, 2001.
7. Institute of Medicine. To err is human: Building a safer health care system. Washington, D.C.: National Academy Press, 2000.
8. Sharma A. Professional as agent: knowledge asymmetry in agency exchange. *Acad Manage Rev.* 1997;22(3):758-798.
9. Mechanic D, Schlesinger M. The impact of managed care on patients' trust in medical care and their physicians. *JAMA.* 1996;275(21):1693-1697.
10. Leape LL. Error in medicine. *JAMA.* 1994;272(23):1851-1857.
11. Edwards N, Kornacki MJ, Silversin J. Unhappy doctors: what

- are the causes and what can be done? *BMJ*. 2002;324(7341):835-838.
12. Flynn KE, Smith MA, Davis MK. From physician to consumer: the effectiveness of strategies to manage health care utilization. *Med Care Res Rev*. 2002;59(4):455-481.
 13. Gold MR, Hurley R, Lake T, et al. A national survey of the arrangements managed-care plans make with physicians. *N Engl J Med*. 1995;333(25):1678-1683.
 14. Grimshaw JM, Shirran L, Thomas R, et al. Changing provider behavior: An overview of systematic reviews of interventions. *Med Care*. 2001;39(8 Suppl 2):II2-45.
 15. Flood AB, Fennell ML. Through the lenses of organizational sociology: the role of organizational theory and research in conceptualizing and examining our health care system. *J Health Soc Behav*. 1995;Spec No:154-169.
 16. Sappington DEM. Incentives in principal-agent relationships. *J Econ Perspect*. 1991;5(2):45-66.
 17. Linzer M, Konrad TR, Douglas J, et al. Managed care, time pressure, and physician job satisfaction: Results from the physician worklife study. *J Gen Intern Med*. 2000;15(7):441-450.
 18. Morrison I, Smith R. Hamster health care. *BMJ*. 2000;321(7276):1541-1542.
 19. Gaba DM. Anaesthesiology as a model for patient safety in health care. *BMJ*. 2000;320(7237):785-788.
 20. Berwick DM. A primer on leading the improvement of systems. *BMJ*. 1996;312(7031):619-622.
 21. Phillips CO, Wright SM, Kern DE, et al. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. *JAMA*. 2004;291(11):1358-1367.
 22. Sidorov J, Shull R, Tomcavage J, et al. Does diabetes disease management save money and improve outcomes? a report of simultaneous short-term savings and quality improvement associated with a health maintenance organization-sponsored disease management program among patients fulfilling health employer data and information set criteria. *Diabetes Care*. 2002;25(4):684-689.
 23. DeBusk RF, Miller NH, Superko HR, et al. A case-management system for coronary risk factor modification after acute myocardial infarction. *Ann Intern Med*. 1994;120(9):721-729.
 24. Weingarten SR, Henning JM, Badamgarav E, et al. Interventions used in disease management programmes for patients with chronic illness-which ones work? meta-analysis of published reports. *BMJ*. 2002;325(7370):925.
 25. Bodenheimer T. Disease management—promises and pitfalls. *N Engl J Med*. 1999;340(15):1202-1205.
 26. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA*. 2002;288(14):1775-1779.
 27. Wagner EH. The role of patient care teams in chronic disease management. *BMJ*. 2000;320:569-572.

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