Beyond Quality Management Methods: Meeting the Challenges of Health Care Reform

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Over the last 20 years, the increasing complexity and technical intensiveness of health care in French hospitals have increased the level of uncertainty in the process of care. This paper argues that beyond quality management approaches, the most important issue in health care management is the need to implement new organizational methods in response to the dynamic changes that are transforming the care process. Uncertainty, complexity and speed can all be managed by standardizing operating procedures, but when quality management is applied to a complex system such as health care, a different approach is needed. One alternative to standardization can be found in new theories of organization that emphasize the flexibility of an organization, i.e. its capacity to adapt to uncertainty. Building on empirical work, this paper integrates these different theoretical perspectives and tries to provide insight into the kind of quality management methods that will allow hospitals to deal with the new constraints being placed on the process of care. © 1997 Elsevier Science Ltd.

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Beyond their semantic differences, total quality management (TQM) and continuous quality improvement (CQI) both stress the need to design an organization that is able to improve the quality of the service it provides. Implicit to both TQM and CQI is the notion that the definition of organizational mechanisms is a critical step in developing effective solutions for any quality management problem. Such an approach implies a focus on the micro-level of the organization, where the question of improving quality is an issue of "how to design work". During the past 5 years, the CRG Ecole Polytechnique and Groupe Image de l'Ecole Nationale de la Sante Publique (ENSP) have led a variety of investigations at the micro-level on topics such as avoiding case cancellations in operating rooms, eliminating delays, overuse of treatment, and improving poorly defined channels of communication [1].

In all these studies, good results were obtained, and efforts to develop continual improvements reduced delays, increased productivity, and in some cases measurably improved the quality of care delivered to patients. However, it would be a serious mistake to conclude that the current issue of organization is as simple as making many specific improvements at the micro-level. Individual improvements such as these represent no unified theme, they are no more than problem-oriented solutions to specific dysfunctions. Furthermore, it is often difficult to determine the indirect effects of a given solution. For instance, if delays to get a CAT scan are reduced, it is hard to know whether the new work conditions could result in some increased risk to patients.

In fact, the most remarkable conclusion of these studies is that TQM, CQI or any other quality management method must never be considered as ways to produce a given set of improvements, but rather as ways to build an organization that is able to adapt continuously to new environmental constraints at the operations unit level. As a whole, these studies suggest that the main point of quality improvements in health care is to cause a transformation in the principles of organization that will parallel the changes that have transformed the care process over the last two decades [2]. Since economic constraints, the diffusion of new technologies, and the gain in medical knowledge due to specialization have all made health care delivery more complex, the evolution of health care management demands that hospitals be able to design new and appropriate principles of organization.

This paper examines the hospital as a complex production system by addressing the following three questions: (i) what will the implementation of an organizational framework mean to the French hospital system? (ii) which organizational framework would be best? and (iii) how can such a framework be implemented in the current context? Answers to these questions will act to clarify a number of key principles regarding quality management methods, an often discussed but nevertheless inadequately studied topic within the field of health care organization sciences in France.

THE MEANING OF ORGANIZATION IN FRENCH HOSPITALS

There is probably no organization more department-
lized and organized around functional units than a hospital. This stems, no doubt, from the professional culture historically dominant in hospitals, a culture that focuses more on the diffusion of specialized technical disciplines than on managerial issues. By contrast, however, the cross-management of the process of care requires a high degree of cooperation between different units.

Understanding the relationship between the process of care and the organization of different clinical units begins by considering the care process and its management separately. Of course, the perspectives of physicians, nurses and hospital directors on “organization” will vary with the culture of the country. In France, the design of the organization has been neglected by policy-makers, hospital directors, physicians, and others for over 20 years. This explains why the nature and magnitude of the organizational changes now needed are still being debated. The process of care and its management have traditionally been viewed from three perspectives.

— Physicians: physicians directly manage clinical operations, but are rarely involved in the different stages of the care process. They generally focus on one specific stage and rarely meet with members from other care units. For physicians, “managing the process of care” frequently is perceived as being about defining better practices for the diagnosis and treatment of disease, rather than about developing better organizational approaches. Physicians often consider organizational issues as problems for nurses to deal with, and there is a tendency to overlook the real responsibilities of nurses in both clinical and organizational realms.

— Nurses: Like physicians, nurses are also rarely, if ever, involved in the different steps of the care process. However, in contrast to physicians, nurses provide care on a continuous basis and must deal with an organization’s problems every day. For these reasons, nurses are interested in implementing organizational changes, even though currently they have no power to do so.

— Administrators: The third perspective is that of the hospital director. The term “administrative perspective” highlights the fact that, in France, hospital direction is more about administration than about management. For example, hospital directors often are unable to evaluate and change physician practices or new technologies, because there are no “medical managers” in French hospitals. For these reasons, hospital direction is more about developing initiatives that address specific strategic aims than about micro-managing the care process.

Of course, this list of “actors” involved in the care process is hardly complete, and each of the perspectives presented here has been oversimplified. These generalizations nevertheless provide insight into the traditional organizational dynamics in hospitals: physicians are more involved in clinical tasks than organizational ones, hospital directors seek to manage the health care process from a distance, and nurses, who are the closest to the problems, have no power to enact changes. These observations explain the lack of organizational principles in hospitals, and the poor organization that results is a problem that affects everyone in the health care process (e.g. residents, interns, specialized physicians of all sorts, physiotherapists, psychologists, specialized nurses, patients, patients’ families, and so on). In French hospitals, curiously, it is typical that no-one is formally charged with this coordination, so it falls on the shoulders of the nursing staff to do their best with this unpleasant task! However, figuring out how to develop better coordination is tremendously difficult when one considers the rapid changes occurring in health care and the absence of any established organizational frameworks.

A FRAMEWORK FOR UNDERSTANDING ORGANIZATION OF WORK: LESSONS FROM OTHERS

As the organization of work represents one answer to the problem of managing the care process (Fig. 1), building an organizational framework for hospitals begins with understanding the process of care itself. Since developing new organizational principles means finding rules adapted to the unique characteristics of health care, the first step towards establishing organization is defining these characteristics. We do not have a clear understanding of the transformations that have occurred in the process over the last 20 years, but three general trends can be discerned.

— First, the process has become more intensive, because the length of stay has been reduced by at least 30% over the last 10 years.

— At the same time, the diversity of treatments has increased, due to the proliferation of medical specialties, the growing awareness of the social perspective of each patient, and the development of new technologies. Together, these create complexity in the care process.

— Third, the combination of a variety of treatments and more intensive care has generated increased uncertainty; i.e. many unpredictable events can occur because of the increased need for coordination between units.

Thus, intensity, diversity, and uncertainty are three characteristics that define the complexity of the care process. When one considers these characteristics together, it is easier to understand the unique qualities of health care and the challenges they present for organization. On the one hand, there is a quality of mass production to health care. As the process has grown more intensive, the number of admissions has increased, so that many more patients are now treated than before. On the other hand, the process of care is not an industrial process, such as the car industry. In health care, the special characteristics of each process must be taken into
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<table>
<thead>
<tr>
<th>Mass production</th>
<th>Complex production</th>
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<tr>
<td>Goal: Allowed time for a specific task</td>
<td>Goal: Coordination between tasks and adaptation to uncertainty</td>
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<tr>
<td>Increasing the speed of execution of the same tasks</td>
<td>Flexibility</td>
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<tr>
<td>Answer: Same rules of work, programming, standardization,...</td>
<td>Answer: organizational skills, knowledge, learning process,...</td>
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FIGURE 1. Two models of organization of work.

consideration. Our term for the unique organizational challenges found in the hospital is "gérer la singularité à grande échelle", which means "managing specific processes on a large scale".

The field of "Organizational Sciences" provides many theories applicable to this problem. A review of the literature shows that over the last 20 years, companies and organizations in many other industries have dealt with the same issues that now face health care, namely increased diversity and variability in the process [3]. A comparison of the traditional view of mass production to the new ways of viewing a complex production system is seen in Fig. 1.

TWO MODELS OF ORGANIZATION OF WORK

The notion of flexibility is central to many organizational models [4]. Of course, flexibility is a broad notion that connotes different meanings depending on the context but, in the case of hospitals, the term "flexibility" primarily applies to the people who manage the process of care, i.e. physicians and nurses. Specifically, flexibility in the hospital means providing autonomy to physicians and nurses in such a way that they can adapt to changing work conditions by modifying their medical and organizational behaviors.

Many theories have been produced on this topic. Without presenting these theories in detail, we can make the generalization that they advocate the "diffusion" of human skills and knowledge (i.e. allowing professionals the flexibility to innovate on the job) as a general solution to the problems that come with complex production systems [5]. Organizational and human resource capabilities play dual roles in managing flexibility. First, the effective implementation of flexible cooperation often depends on the existence of a broadly skilled work force that is able to carry out tasks even when there is no protocol to follow. Second, these same professions must demonstrate flexibility in dealing with uncertainty, e.g. by reorganizing a process or reallocating tasks in order to adapt to new work conditions.

Of course this approach, based only on organizational skills, is just a skeleton, but it does provide a framework for the development of an organizational system adapted to health care. Furthermore, this type of system allows management to create quality improvements globally, across the whole system, rather than by fixing problems as they arise. Unfortunately, it should also be clear that there are many potential conflicts between an organizational approach such as this one and the traditional views of hospital organization described in the first part of this paper.

IMPLEMENTATION OF A NEW ORGANIZATIONAL FRAMEWORK

As mentioned earlier, the different organizational perspectives of physicians, nurses, and hospital directors is the result of a long-term period of evolution. Therefore, the implementation of a new organizational framework will challenge all of these groups to see the organization of work differently. This is why any successful organizational approach will have to find a way to integrate these various interests into a coordinated whole. While it would be premature to offer a highly detailed road-map for change, it is possible to point out some areas in which change is most needed, and some ways to improve the current situation.

The first area concerns the ability of physicians to deal with organizational issues. As their training is focused primarily on medical knowledge, the managerial culture and knowledge among physicians are very weak. Furthermore, physicians often believe they do not need to be involved in organizational problems, and would rather concentrate on developing better medical prac-
From an organizational perspective, physicians are the designers of the process. For every process, physicians plan a strategy, actualize this plan, and modify the plan as they go. From this perspective, organizational change is about linking better medical practices to manageable processes. The challenge will be to improve the interaction between managing health care and delivering care, rather than setting the two forces against each other.

A second area for action concerns nurses. Nurses can be considered as the executives in charge of the delivery of care. At the same time, however, nurses also are claiming a professional status based exclusively on the medical aspects of their profession. However, if we define professionalism as possessing and applying a body of complex knowledge, skills, and behavior [6], then the organizational knowledge they demonstrate in delivering care should be added to their professional identity.

A final example of an area for change is the extent to which administrative control reinforces the status quo by operating standardized procedures. On one hand, given the complexity of the process of care as we have defined it, it is critical that some balance be struck between the development of formal control through operating procedures and respect for both professional autonomy and system flexibility. On the other hand, operating procedures are an easy way to manage the process of care and achieve financial goals. For these reasons, new control mechanisms, such as accreditation systems in France, must take into account the value of flexibility without eliminating financial and other incentives. Simultaneously, hospitals must remember that control systems serve two related purposes — evaluating performance and providing incentives for the actions that management considers desirable [3].

CONCLUSION

Many reforms in France have claimed to make the health care system more responsive to user needs, more effective, more efficient, and better able to improve work conditions for nurses. Yet most actually were designed to bring the component parts of the system under control, particularly financial control. As a result, the organizational perspective within the operational units has barely developed. It is now critical that these issues be addressed.

Quality management methods represent a good way to introduce an organizational perspective into the debate on health care reform. Changes in the health care system must continue to allow professionals to assess practice guidelines, but they need also to institute new organizational principles that can respond to continual changes in the process of care. The framework introduced here is based on the concept of flexibility. This framework goes beyond traditional quality assurance methods, which often focus on operating standardized procedures [7], to include two other dimensions: cooperation within and between units, and adaptation to uncertainty. Solutions to these two problems will require the expansion and "diffusion" of the organizational skills already possessed by nurses and physicians.

The development of this framework requires the exploration of how it can be instituted, e.g. in revised medical school curricula, continual rethinking of nursing practices, and new forms of administrative control based on certification of professional skills. Of course, institutions such as hospitals are not accustomed to organizational changes, and certainly some of these ideas will have to be modified, but clear understanding of the formidable transformation in the process of care should help spark a radical rethinking of the organization of hospitals.

REFERENCES