Does health care for knowledge management?

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Abstract This study explores knowledge management within an Australian regional health care organization. Many barriers inherent in the organizational structure and design of the organization that are indicative of the public health sector have been identified and discussed. From the results and discussion it is concluded that new models, tools and techniques for knowledge management specific to the environment of the public sector and particularly the health sector are required.

Keywords Health, Knowledge management, Public sector, Organizational structure, Organizational design

Introduction

Many organizations have, or are, realizing the importance of knowledge to enhance their capacity to compete and adapt to a changing world. Coupled with this realization many academics and knowledge management practitioners have developed models, tools and techniques for knowledge management. However, much of the literature in the area of knowledge management has focused on the private sector, where it is reported and often suggested that the implementation of knowledge management facilitates growth, drives up revenue and creates competitiveness. But few have suggested what outcomes a public-sector service organization should expect. And fewer still have investigated how knowledge management can operate in organizations that provide health care.

Health care organizations, particularly public sector ones, are a peculiar breed, as they are public funded and not driven by increasing profits or competition. Certainly they are concerned by and motivated to address issues of cost, quality, efficiency and

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effectiveness, but not with the same ideologies of private enterprises. Whilst public health care organizations are different from private sector organizations, they are also similar. Just as the private sector organizations need to be responsive to external influences such as: customers, competitors, suppliers and changing industry standards; so too do health care organizations need to respond to patient needs, the community's needs, stakeholders, government policy and changes in medical, clinical and patient care practices.

Some have suggested that responsive and productive organizations have the ability to create an environment where specialized knowledge, skills, and abilities of all employees are leveraged to achieve advancements in service delivery (Katzenbach and Smith, 1993). Health care organizations are indicative of this, in that the organization could be viewed as a collection of professional specialists who contribute to the delivery of patient care. They are deliberately referred to here as a "collection" as often these specialists work in discrete divisions within the organization, thus fragmenting the delivery of care. This has a profound effect on the ability to create, disseminate or share knowledge throughout the organization, and yet the delivery of care has most often been achieved.

Many authors in the field of knowledge management have suggested that organizations need to change from hierarchical departmentalized structures to flatter networked forms in order to transfer and create knowledge for the firm. Skyrme (1998) found that in a year-long study of international best practice, two types of strategy emerged. The first is to share best practices thereby making better use of the knowledge that exists within a firm. The second is to create new knowledge and convert ideas into valuable products and services through knowledge innovation. Katzenbach and Smith (1993) postulated that sustained innovations rely on the development of a set of core skills and competencies that are aligned with the vision of the organization and encompass the unique perspectives of all organizational members. Successful organizations of the future will be characterized by their simple and flexible design, the successful balance of organizing work and behavior around processes instead of tasks or functions, and emphasis on teams as their key performance units. Allee (2000) asserted that a new enterprise model of the value network has superseded the industrial age production-line model. Where traditionally the question of "how is value created?" was answered through the value chain it is now measured by the contribution of networks within the organizations.

Schneider (1993) analysed the effects of ideology on organizational structure and motivational consequences using the medical and community models of medical health delivery. For the medical model, decision-making is centralized and duties are specialized, whereas the community model practices decentralized decision-making and generalized functions. She found that the medical model of organizational design could slow down decision-making, cause passivity in patients and staff, and a fragmented treatment approach. Whilst the community model encourages teamwork, it could also lead to confusing responsibilities, authority and job requirements. Therefore it is unclear which model would be suitable for healthcare organizations as both are problematic. Schneider concluded that confusion resultant of either model results in an organizational structure being dictated by ideology, thus affecting the personal and professional identity, competence, responsibility, accountability, satisfaction, and motivation of patients and the medical staff. This finding has important implications for the development of organizational designs conducive to knowledge transfer and creation within health care organizations.

According to Hansen *et al.* (1999) the strategy of an organization to manage knowledge leads to two approaches: a codification approach – capturing knowledge for many individuals for re-use by many others – suitable if your product or service is standardized; and a personalization approach – relying on individuals sharing their intuition and know-how to create innovative or customized products and solutions.

This study aims to explore the approaches to managing knowledge by a regional health care organization, and identify the potential barriers and changes required for knowledge management to proceed.

Method

This study was conducted over four weekly sessions for one and a half hours, with 20 participants who work in various areas of a regional health care organization within Australia. During these sessions the participants were asked to discuss how knowledge management is implemented, whether changes should be made to implement knowledge management techniques or whether knowledge management can be implemented into their organization. The main points from the discussion were recorded as notes from the conversations.

At the end of the four-week period the participants were asked to write a report that specifically asked them to "make suggestions on how knowledge management approaches and systems could be introduced or improved in [their] organization". These reports were then analysed and the main points were summarized.

Results

A total of eight major issues were identified from the discussions and reports. The eight issues include:

(1) The organization contains a predominantly hierarchical structure with many levels of management; in which most information flows upward, with processing and filtering occurring at each level. There is reluctance by senior management to send information downwards because of a belief that it will not affect employee performance.

(2) There is strong resistance to change at the individual and management levels of the organization that inhibits the adaptation or reaction to the environment.

(3) The divisional structures in the organization are based on professional groups and are not oriented around work areas. Individual professionals (surgeons, nurses, pharmacists etc.) are employed to perform their step in the process. There is minimal group problem solving and few informal networks – a rigid departmentalized organizational structure creates minimal formal and informal contact between professional groups.

(4) The organization relies exclusively on acquisition to procure the knowledge it needs to process patients.

(5) Employees receive *ad-hoc* training sessions on topics specific to their profession and related to their isolated work area. Organization initiated training needs to occur; with an emphasis on broadening individual's knowledge base and allowing knowledge creation in their activity area.

(6) Rigid strategies and formal procedures have been developed to streamline processes. "Clinical pathways" for patient management are currently being developed to provide uniform patient care at the lowest cost.

(7) Very few social functions are supported by the organization and most of those that are supported have the purpose of fund raising. Senior management rarely attend events with employees.

(8) Government policy has a direct impact on the direction and focus for outcomes. The change in government policy causes confusion and disruption that often leads to a lag in the implementation of strategy to meet the new directions.

Discussion

The eight issues identified are not discrete, but are related and perhaps casually related to each other. The issues identified provide an indication of how complex public healthcare organizations are when compared to private sector organizations. The hierarchical structure of the organization exists for many reasons: it has evolved from traditional organizations, but it also provides for rigid control and coordination. This might be deemed necessary given the legal, ethical and moral obligations encompassing the provision of health care. Often knowledge management models report the need for flatter organizational structures based on loosely coupled teams that form networks of functions for the organization. However whilst these structures presented in the ideal models for innovation, knowledge creation and intrapreneurial activity are proclaimed to be necessary for knowledge management, they may not be appropriate for the public sector, particularly the public healthcare sector.

Perhaps the issue of organization design problems is related to the training and knowledge provided to health care professionals. Traditionally knowledge transfer within healthcare professions has tapped both explicit and tacit knowledge sources. The educational training provided at Universities transfers the explicit knowledge. Whereas the transfer of tacit knowledge occurs through apprenticeship-style work patterns, for example, internships where junior doctors work alongside a senior clinician in surgery or intensive care. However knowledge remains isolated within these professions due to minimal interdisciplinary training. This has led to some knowledge becoming the property of professions who do not easily relinquish or share it because of associated status and power within the organizations and society. Similarly as the individual is employed to provide a particular function within the organization, perhaps sharing responsibility and knowledge of other procedures may lead to confusion as discovered by Schneider (1993).

One might argue that the sharing and creation of knowledge need not alter the hierarchical structure, but creating informal network structures that overlay the existing structure might suffice. This might be achieved by establishing cross-disciplinary teams to work through apparent problems within the organization. However this might also become an artificial situation that is overshadowed by the existing cultures of the organization. Whilst many have identified that "socialization" activities support knowledge flow and the generation of new ideas and knowledge within private-sector organizations (Skyrme, 1998), it might be less simple in public sector organizations where power structures and hierarchical levels are culturally embedded.

The health care sector organizations can also be presented as simple environments for knowledge management, that are so conducive to knowledge management that their existence has and continues to depend on it. The professions that combine to

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offer healthcare have their own set of values and directions often stated in a code of ethics. Government policy and legislation also offers direction and guidelines for those practicing professionals. The combination of all these sources offers a set of goals and strategic direction clearly understood and conveyed to all who provide healthcare delivery. Therefore the techniques often stated in knowledge management as good human resource management techniques, which include providing a compelling vision and architecture with a coherent framework for guiding management decisions, together with appropriate bottom line measures, are applicable to both private and public sector organizations. The source of these techniques might need to be created within private sector organizations, whilst for public organizations they are provided from external sources, such as the community, government policy and stakeholders, or internally through the shared vision of the professionals that bring their professional codes of conduct to the organization.

The following section describes the current best knowledge management practices in the health sector. A case study is presented that presents the ideal situation for knowledge sharing in health organizations.

Case study – knowledge dharing best practices for health care

Health care organizations need to be affective at collecting and analysing clinical and market data, screening and organizing these data into information useful to decision making (Pavia, 2001). The management and sharing of that information to enhance the useful knowledge of consumers, patients, clinicians, staff, managers and board members is pertinent to the future competitiveness and survival of health care organizations. Infusing such knowledge into services and the provision of care will differentiate an organization and provide sustainable competitive advantage.

Ideally health care organizations need to strive toward a system that is truly "patient-centred"; just as corporate organizations need to move toward a customer-centred focus. The patient-centred approach provides care that is based on continuous healing relationships (Stefl, 2002). Such care is customized based on patient needs and values. In such situations the patient is the source of control, rather than the traditional model where the medical practitioners determine the time, place and type of care provided. Patients will be involved in the decision-making process with care providers. For this to be achieved professionals will be required to freely share information with the patient. The transfer of personal and scientific information will be the foundation of the patient-centred relationship. To achieve this situation the patient will have unrestricted access to their medical records which will include evidence of which providers have accessed and annotated them. An emphasis will be placed on the educator and communicator elements of the clinician's role. This will facilitate patients understanding the content of their medical records and the options for future care.

Clinical care will be based on the best and most relevant available information that includes the newest medical and scientific knowledge and will account for patient variability. Such knowledge will be created by clinicians sharing their knowledge with others both within and across organizations. They will record their discoveries and findings, in the technology based information systems that facilitate the communication and sharing of such knowledge among clinicians.

For this outcome to be achievable the system needs to be transparent and clinicians are required to cooperate (Brakensiek, 2002). Health care professionals and organizations should be accountable to the public, where the results of their care should be freely available so that patients can make choices.

> **" A new set of tools, techniques and models might be needed for public sector organizations. "**

Patient centred care requires health care providers to cooperate and communicate with one another. This includes organizational management, clinicians and all other staff that provide services to the patient. Through cooperation and communication the most comprehensive care for the patients will become more achievable. The current culture of autonomy and "silos of knowledge" will need to be replaced. The new culture will emphasize cooperation, communication, education and team building.

Conclusion

As discussed the implementation of knowledge management in public healthcare organizations is both complex and perhaps simpler than private sector organizations. Whilst these views seem to be opposing it is perhaps a result of investigating the implementation of tools, techniques and models that have been primarily developed for private sector organizations. Therefore a new set of tools, techniques and models might be needed for public sector organizations that considers the intricacies of public sector organizations and the environmental influences unique to such organizations.

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