Organisational culture, organisational learning and total quality management: A literature review and synthesis

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Abstract

As health services face increasing pressure to meet the expectations of different stakeholders, they must continuously improve and learn from their experience. Many fail in attempts at continuous improvement programs because managers have not understood the complexity of making changes in organisations with multiple subcultures and interests. This article examines the related concepts of organisational culture, organisational learning and total quality management and shows how a synthesis of this knowledge can assist in developing continuous organisational learning and improvement.

Introduction

Health services need to become more responsive and adaptable in the face of increasing environmental turbulence and change (Peters & Waterman 1982; Kanter-Ross, Stein & Todd 1992). However, it is hard to initiate quality improvement because staff often do not believe it is important. For every successful improvement program there are many that fail. The main cause may be a failure to recognise that three related concepts must be applied together: organisational culture, organisational learning and continuous improvement. Total quality management (TQM) has a close philosophical link with these concepts. It is examined as a possible means for achieving the desired cultural change.

Organisational culture

Many views exist about how organisational culture is disseminated, reproduced and changed. The most common view assumes that each organisation has a single culture created or imported by its members. They are thought to share similar values, beliefs and perceptions about the organisation and attribute similar meanings to events occurring in and around it. Some writers focus on superficial manifestations of culture such as the espoused values of top management (Peters & Waterman 1982). Others look for deeper meanings that underlie behavioural norms (Smircich 1983; Schein 1985). There is consensus, however, that the culture should support the organisation's goals.

The empirical evidence suggests, however, that it is more appropriate to think of organisations as culture-bearing milieus: arenas containing sites through which subcultures may develop. These tend to occur when workgroup members:

- interact more regularly with each other than with others in the organisation
- face roughly the same problems
- share interests and purposes
- agree on what constitutes appropriate behaviour (Louis 1985; Van Maanen & Barley 1984).

Subcultures often form around pre-existing groups that enter an organisation. A large hospital may contain various professional subcultures. Their members will also belong to workgroups (for example, surgical teams) which may develop their own ways of organising and working together. Organisational members may belong to several subcultures. Consequently they can often choose which norms to follow and use their cultural knowledge to pursue their own ends (Golden 1992). Tension may arise when situations demand that individuals with dual loyalties choose between organisational or different subcultural guidelines.

During times of change groups may import and use expressions of external cultures to promote their own interests (Bloor & Dawson 1994). Ideologies, values, beliefs and practices may be stressed to secure group support and cohesion, and legitimate goals and action. Some subcultures may hold the dominant values of the organisation more strongly than other groups. Some may hold values and beliefs besides those shared in the organisation. Some may be counter-cultures that reject the common values of the organisation and seek to alter its mission and practices (Martin & Siehl 1983). Subcultures may serve to maintain the status quo in terms of power relations between groups or particular practices and ideologies or they may act as major transforming influences within the organisation, refining and amending existing systems. They are therefore sources of flexibility, innovation and change within organisations, as well as potential sources of conflict (Sinclair 1991).

Managing culture

Managers often fail to manage culture. Some assume that organisational culture is a simple phenomenon and attempt changing only its visible aspects, such as artefacts and perspectives. Disappointment frequently follows. Deeper aspects of culture can hinder change and problem solving (Bate 1984; Brooks & Bate 1994). A study of the British National Health Service showed that imposed culture rarely totally supplants the host one, but is resisted. At best an unanticipated hybrid is likely to emerge (Ashburner, Ferlie & Fitzgerald 1996).

A second erroneous assumption is that all organisational problems stem from poor 'cultural fit' and that if managers can create a strong culture of the right type then all will be well. These managers often emphasise training and interpersonal relations and ignore structural and technological aspects of change which Pennings and Gresov showed can impinge on cultural beliefs (1986).

A third fallacy is to assume that the organisation is a unitary culture and adopt a single approach to organisational change. However, since events in organisations can be vested with multiple meanings, several approaches tailored to the concerns of different groups may be needed (Young 1989). Large-scale change is likely to be slow and unpredictable if subcultures are only loosely linked and interpret and react to environmental changes in different ways. Communication systems are important in handling subcultures (Harber & Ashkanasy 1998). Providing for different groups to share perspectives and learning together may stop counter-cultures developing (Meyer 1982).

A final fallacy is to concentrate solely on what Gagliardi (1991, p 13) calls the 'logos' or cognitive part of culture. Organisational culture also contains the values or moral experience of the organisation, and its climate – the feel of the place. Members experience this in their day-to-day working life. Other stakeholders may also sense the climate of the organisation. Inconsistencies between the organisation's espoused values and its climate tend to promote counter-cultures.

Cultural dynamics

Organisational culture is dynamic. Hatch (1993) identified four major elements of culture (assumptions, values, artefacts and symbols) and the processes that link them in ways that allow for both cultural change and stability.

Underlying assumptions (that members have as general expectations of what is or ought to be organisational reality) are proactively manifested as values. Changes in assumptions may therefore result in new values. New values, however, may reinforce assumptions or realign them through retroactive manifestation.

Processes of realisation link values and artefacts. For example, a rule that patient consent must be obtained before any procedure may realise a value of respecting patient rights, but the action itself reinforces the value. Conversely, introducing new procedures has

the potential to retroactively alter values. A concern for patients may lead to a need to collect information about them in order to fund new services, but the introduction of a data collection form may result in a new value of concern for comprehensive data collection that supplants the former one.

Artefacts have the potential to take on a symbolic meaning through prospective symbolisation. (Spacious offices and large desks may symbolise status within an organisation rather than simply being tools.) Retrospective symbolisation can result in actions consistent with symbols.

Processes of interpretation link symbols with assumptions. Organisational members retrospectively interpret symbols in terms of underlying assumptions that they already share. However interpretation also establishes meaning. If several events and objects gain a symbolic meaning contrary to existing assumptions, prospective interpretation may change those assumptions.

Change can occur anywhere in this enculturation cycle. New ideas and procedures can be introduced deliberately by managers or unintentionally through the recruitment of new staff. Seemingly trivial events can have major, unexpected consequences if they assume a symbolic importance. Conversely, other innovations produce little change because they realise existing values and uphold assumptions about the organisation.

Organisational culture is a product of both group dynamics and internalised norms. Change in one part of an organisation can cause reactions in other parts. Organisational culture can both affect and be affected by individual and organisation-wide learning and change.

Organisational learning

Regardless of whether their members consciously seek to learn, learning occurs in all organisations. Some deliberately advance organisational learning, developing capabilities that are consistent with their objectives. Others make ill-focused efforts and acquire counter-productive habits. Organisational learning is not simply the sum of learning by individuals in organisations. It embraces not only what they do but also a different order of learning, which occurs as if the organisation had a life of its own. It may be tacit and unconscious, or cognitive and conscious.

Argyris and Schon (1978) first showed how learning by individuals could be harnessed to produce organisational learning. They developed theories of single loop learning (detecting and then correcting errors) and double loop learning, that produce new frames for making sense of events. They suggested that learning is cyclical with one learning event producing the problem/tension that provokes the next one.

Kim (1993), who studied the relationship between individual and organisational learning, distinguished between operational learning (which involves the individual learning steps necessary to perform tasks and which is captured as routines) and

conceptual learning. Conceptual learning is captured as new frameworks for understanding situations and events. Routines, once learned, are often unconscious and it is only when something unexpected occurs that people stop and consider new ways of doing things and develop new concepts or knowledge.

Kim used the work of March and Olsen (1975) to identify points where organisational learning can be disrupted. These situations are:

- role-constrained learning – role constraints or standard operating procedures prevent individual learning from leading to action
- audience learning – the link between individual action and organisational action is ambiguous
- superstitious learning – individual actions influence organisational actions but, since the link with environmental responses is unclear, faulty inferences are drawn from experience
- learning under ambiguity – the individual influences organisational action, which affects the environment, but the causal connections among the events are unclear; that is, there is operational learning but not conceptual learning
- situational learning – the individual solves a problem but does not reflect on the learning for later use. Consequently no lasting change occurs to the individual's mental models and the knowledge is not shared with others
- fragmented learning – the individual learning is not shared with others
- opportunistic learning – the organisation deliberately bypasses its usual way of doing things in response to an opportunity or threat. The results of this action are not fed back and incorporated into routines

Another concept of learning focuses on how adults learn (Knowles 1980; Danis & Tremblay 1985). Meaningful adult learning is based on problem solving that links with a person's general life events and activities. It is marked by personal autonomy, experimentation, people seeing links between different aspects of their work and lives, and by activities that may initially seem irrelevant to the specific job being undertaken. These two views of learning are compatible. People will engage in solving organisational problems more if they see links between the organisation and their own interests.

Individual learning, however, does not occur in isolation. Bandura (1977) showed how people form images of reality through social interaction. They often act on these images instead of information gained directly through personal experience. In Leavitt & March's words, 'what is learned appears to be influenced less by history than by the frames applied to that history' (1988, p 324). Likewise at the group level De Geus reminds us that it is not 'the reality that matters but the team's model of reality, which will change as members' understanding of their world improves' (1988, p 78).

Culture affects the ways individuals and groups make sense of events (Bloor & Dawson 1994). Some disruption in organisational learning occurs when subcultures interpret

events differently or when their assumptions cause a failure to cooperate and share knowledge beyond their group (Bate 1984). Giving people a conceptual grasp of their organisational roles, of the organisation's goals and of what management sees as important for the future allows them to examine routines rather than follow them unthinkingly.

Individual learning contributes to organisational learning by modifying organisational routines and the world view shared by its members. The resulting changes in organisational understanding have been conceptualised as changes of organisational experience frameworks (Morgan 1986), of organisational cultures (Smircich 1983) and world views (Hedberg 1981; Nystrom & Starbuck 1984). Organisational learning involves not only continuous change in these structures but also a social construction that recognises and transforms learning and tacit knowledge into accountable abstract knowledge (Nicolini & Meznar 1995).

The presence of several conditions enables knowledge creation to occur:

- intention to create new knowledge
- a fluctuating, unsettled environment or creative chaos generated by a real crisis or a sense of crisis in members that is evoked by leaders proposing challenging goals
- members having autonomy in decision-making and structuring their work
- requisite variety in members' work
- the availability of information that is not immediately relevant to members' work but which helps them understand their place in the organisation and its environment (Nonaka 1994).

As organisational members share experiences and their interpretations of them, the conceptualisation and externalisation of what has previously been individual tacit knowledge occurs. This knowledge is crystallised and justified by others testing the reality and applicability of the concepts created by the group. Exchanging ideas through shared narratives and stories builds common understandings out of conflicting and confused data. The convergence and screening of these insights determines their value for the organisation and may change its vision and structure.

It is mainly during the crystallisation and justification stage that subcultures influence learning. In unsettled contexts subcultural elements are more highly articulated and closely interwoven with action. Those proposing changes seek to justify them to others. Ideology plays an important part in legitimising approaches and power structures. The more organisational members share a group's perspective, the more likely it is to control resources and other structures. Professional subcultures often use their existing knowledge bases to interpret and justify particular actions and develop ideologies that support desired strategies (Bloor & Dawson 1994).

The way that new situations and events are interpreted and these interpretations shared or opposed is a significant factor in organisational learning. Van de Ven and Polley

(1992) showed its importance in their study of the demise of a venture to market innovations in medical technology. Because managers and external resource controllers perceived events differently disputes arose about the meaning of innovation setbacks. These ultimately allowed 'errors to snowball and fester into systems of technical incompetence and cultures of social betrayal' (p 114).

Dialogue between groups is useful for improving communication and understanding, breaking down barriers between subcultures and developing a shared vision and culture (Senge et al. 1994; Birleson 1998). Dialogue involves suspending all assumptions and seeking to gain the broadest possible understanding of an issue.

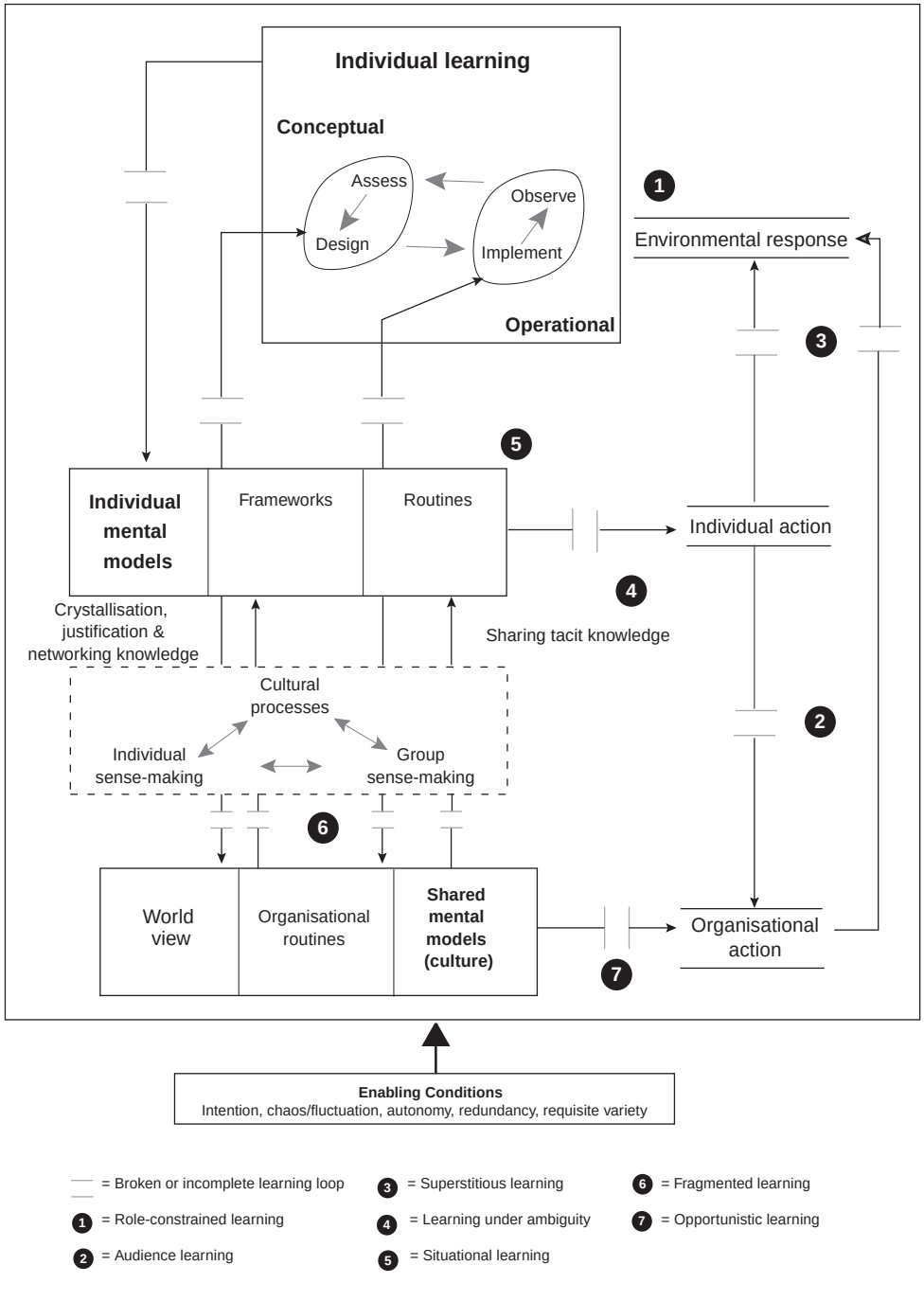
Figure 1 is a diagrammatic representation of the interplay between organisational culture(s), individual and group learning. The presence of enabling conditions facilitates learning. Individual and group sense-making and learning is mediated through cultural processes that influence how events are recognised and interpreted. The dotted box, through which arrows (indicating the sharing of tacit knowledge and the crystallisation, justification and networking of new knowledge) pass, represents these processes. The points at which learning may be disrupted are also shown.

Managers can facilitate learning by influencing cultural dynamics. Creating cross-functional teams to analyse and solve problems can undermine subcultural assumptions about antipathy between groups and can symbolise a new, shared vision for the organisation. By reframing events or stories within the organisation it is possible to suggest new world views that symbolise new assumptions. Developing procedures for capturing and disseminating new knowledge can strengthen values associated with experimentation and learning.

The learning organisation

Pedler, Boydell and Burgoyne define a learning organisation as one 'which facilitates the learning of all its members and continuously transforms itself' (1988, p 3). It is a culture of continuous learning and improvement, and analyses, monitors, develops and aligns learning processes with improvement and innovation goals. It is skilled at creating, acquiring and transferring knowledge and then being able to modify behaviour to reflect this new knowledge and insight (Garvin 1993). Organisational members and leadership may change but its culture preserves behaviours, norms, values and 'mental maps' over time. These core competencies become parts of the organisation's routines and are transferred to new members through socialisation.

In line with Nonaka's (1994) prescription of conditions which enable knowledge creation we can hypothesise that learning organisations have structures that emphasise systems thinking, cross-functional problem-solving teams, a spirit of flexibility and experimentation, autonomy in decision-making,a shared vision for and a focus on quality, and customer service throughout the organisation (Jones & Hendry 1992; Senge 1992).



Source: Kim 1993; Nonaka 1994; Bloor & Dawson 1994

Figure 1: A synthesis of individual and organisational learning and points of possible breakdown

These all impinge on the way members work together and thus help shape the organisation's culture(s). Edmonstone (1990) believes that managers wishing to promote a learning organisation should concentrate on corporate culture, strategy, structure and the individual employee.

Garvin argues that the conditions for an effective learning organisation are those often associated with TQM programs. Although the learning organisation includes more than TQM there is a clear philosophical link between them.

Total quality management

TQM has become something of a social movement in the Western world. Snell and Dean sum up its core features as 'a few basic principles – doing things right the first time; striving for continuous improvement; and fulfilling customer needs – as well as a number of associated practices' (1992, p 470). Deming (1986), however, believes TQM is possible only if a culture exists where people are trusted and supported in innovation and learning.

Deming (1986), Juran (1988), Crosby (1979) and Ishikawa (1985) developed a range of tools for analysing work processes. The PDCA (plan-do-check-act) cycle, known to most managers, is similar to the single loop learning model. Most quality programs use these tools primarily for detecting and eliminating errors within processes rather than asking whether the processes themselves are appropriate. Double-loop learning, however, requires the evaluation of the effectiveness of organisational processes as well.

Because TQM is so popular, a number of practices and programs that do not fit its definition have been marketed as part of TQM programs (Hackman & Wageman 1995; Keys 1998). Conversely, some practitioners have used selected TQM principles and tools and ignored others. Consequently it is not always clear what is TQM and what is not. This may explain why some total quality programs fail.

Sitkim, Sutcliffe & Schroeder (1994) suggest there are two components of TQM – total quality control and total quality learning. Total quality control emphasises quality control and the elimination of errors and is appropriate when procedures are fully understood. Total quality learning focuses on learning from errors and is appropriate when procedures are not well understood or when inputs are equivocal. The lack of a balance between control and learning that is appropriate for the tasks and goals of the organisation is also a reason for some failures to improve effectiveness.

Some organisational subcultures stress learning and others stress control. Disagreements between them can block improvements or the spread of learning through organisations (Schein 1996). Subcultures may oppose the introduction of TQM or elements of it for their own ends, or may misinterpret the meaning of such programs. The political processes involved in introducing TQM means that management must be willing to modify its approach to fit circumstances (Dawson 1996).

Total quality management and health care

TQM has been successfully used in health care (Hendricks & Triplett 1989; Helig 1990; Kralovec 1990; James 1991; Gale 1994, 1997; Stuart 1994). The key elements for success are leadership, customer focus, process management, employee contribution, communication, measurement, reflection on learning and on the best practices of others, and a quality culture (Everett and James 1991; Sohal and Morrison 1995). Failures in TQM appear to result from managers misunderstanding the history and culture(s) of the organisations involved or the role of learning in TQM (Southon & McDonald 1997). Shortcomings in quality programs that need addressing are:

- **failure to recognise the nature of different tasks**

  Most routine tasks in health services are understood well enough to make it possible to try to eliminate errors, but many treatment interventions require some focus on experimentation and learning from outcomes. In clinical practice the needs, expectations and objectives of the patient are paramount. Since these needs can be quite variable, customisation is the main goal. TQM's emphasis on reducing variance must be modified to stress reduction of unnecessary variance.

  Health services must detect and correct errors for the patients' sake, but the ways that such procedures are executed have symbolic significance for staff. If mistakes are a source of shame then experimentation will be avoided. A culture of learning is enhanced if mistakes are used as opportunities for further learning.

- **failure to recognise the clinical roots of quality**

  Peer review and audit are long-established quality improvement practices amongst medical disciplines. However, they occur with little involvement from customers or suppliers. Consequently, adverse events in health services that occur between specific fields of practice, rather than within them, are often overlooked (Australian Health Ministers' Advisory Council 1996). While a distinction should be drawn between concern for quality, and the systematic management of quality, TQM would be far more acceptable to clinical areas if the traditions, strengths and terminology of disciplines were recognised and included in the quality programs.

- **failure to gain the participation of medical staff in TQM programs**

  The medical profession has traditionally dominated health services, but recently administrators and other health professionals have gained influence. They have been more attracted than the medical staff to TQM. However, since doctors determine up to 80% of the caregiving activities of other staff they must be included in any attempt at TQM.

  Managers must consider carefully how they can introduce TQM to medical staff and overcome their subcultural tendency to avoid participation in multidisciplinary teams except when they are in leadership roles. Appointing a full-time medical officer to lead the change process is said to enhance trust by the doctors, recognise their existing traditions of quality improvement and encourage the incorporation

of TQM tools into their repertoire of skills (Horne 1996). However this approach may be opposed by other health workers who see it as symbolising and reinforcing medical dominance. Another way may be to encourage professional colleges to provide appropriate training, thus giving doctors TQM skills without reinforcing their perceived dominance.

Establishing multidisciplinary working parties to deal with particular issues or problems may improve learning. This is particularly so if the group includes both significant people from the teams with whom the medical staff work and others who have expertise in the specific issue being considered. Groups should include the internal and external suppliers and customers of each process under review. However, subcultures may initially be antipathetic to each other (Bate 1984). Training teams in 'people skills' and dialogue will improve their effectiveness.

- **failure to recognise professionalism**

  TQM promotes a single culture that emphasises continuous quality improvement. Professionalism imports skills and cultures from outside the organisation and a commitment to professional codes and standards. These may be antipathetic to TQM techniques. Professionalism, however, implies commonality with other organisations providing the same service; thus benchmarking is one tool for incorporating professional concerns into TQM. Managers, not clinicians, often dominate this. To involve clinicians, it is important to use measures that they value, so that the focus is on outcomes and not measurement for its own sake.

- **failure to recognise the service element of quality**

  Professionalism can encourage a value of 'doing what is best for the patient' rather than what the customer wants. Some professionals do not see that there are two elements to quality service – technical quality and customer satisfaction or perceptions. Customer complaints are rarely about the clinical expertise and proficiency of staff but rather about the way services are delivered (timeliness, courtesy and so on). Cultures of professionalism should be challenged so that staff understand that it is patients' overall experiences of the health service rather than just the technical proficiency of staff that determines patient satisfaction.

- **failure to achieve an effective balance between staff empowerment and managerial control**

  Watkins & Marsick say 'a learning organisation has a culture of empowerment' (1993, p 195). TQM, however, gives staff responsibility and power to make improvements but also subjects them to greater scrutiny by both their managers and peers (Geary 1995; Edwards, Collinson & Rees 1998). The balance between empowerment and control can determine the success of TQM programs and organisational learning. Managers and staff may both be ambivalent about staff empowerment, managers because they may lose the security of a controlled and predictable organisation, and staff because they may have to accept greater responsibility and 'blame' when setbacks occur (Field 1998). Some staff may resent the extra scrutiny and reporting involved. Potential also exists for conflict both

between management and staff, and between staff groups who are internal customers of each other (Dawson & Palmer 1993; O'Donnell 1996). Existing power relations and subcultural norms greatly affect how staff view the introduction of TQM. Empowering staff to make improvements is not enough. Managers and staff need to feel secure and see some personal benefit from making changes and learning new processes and skills.

- **failure to consider the influence of outside stakeholders**

  External stakeholders can affect TQM. Purchasers' demands for information on quality initiatives can focus effort on information generation rather than customer outcomes. The use of standards and quotas can also discourage health care providers from directly seeking customer views. Similarly demands by professional organisations can disrupt efforts to establish effective multidisciplinary teams. TQM leaders need to be aware of these influences and keep the focus on customer outcomes and process improvement.

These problems demonstrate the need to consider existing culture(s) when introducing TQM concepts and tools. It is important to articulate both learning and its applications so that all concerned can see its impact on the organisation and their work.

Improvement in health care usually results from advances in professional knowledge, which consists of subject and discipline as well as professional values. It is often spasmodic because professionals are usually not trained in what Batalden and Stoltz call 'improvement knowledge' (1993). This consists of knowledge of a system (that is, a group of people, items, processes, products and services that have a common purpose or aim), knowledge of variation, knowledge of psychology (particularly that of work and change) and a theory of knowledge. They argue that joining these two types of knowledge enables the continuous improvement at a faster pace than before.

Continuous improvement occurs when everyone in the organisation understands the system of work and its aims, and collaborates to build knowledge and improvement in daily work. Essential to building and applying knowledge in this way are a leadership policy promoting a shared vision and fostering learning, TQM tools and methods that accelerate the development of new knowledge and improvements, and systematic strategies for transferring knowledge throughout the organisation and for applying it to daily work. Some strategies for creating an organisation in which there is a culture of learning and continuous improvement are found in Table 1.

Table 1: Some strategies for creating a culture of continuous quality improvement

Cultural

- Form and maintain multidisciplinary teams beyond the life of the particular project. This allows them to form their own norms and traditions that transcend pre-existing cultures.
- Co-opt the assistance of professional colleges in the change process. Ask them to run courses in TQM for their members. Appoint a representative to an advisory board to oversee the change process.
- Challenge cultures of professionalism by running focus groups with patients, relatives and the health team in order to understand what the customers want. The presence of a diversity of health professionals, as well, makes it more difficult for individual professions to dismiss what customers say.
- Clarify the understanding of all stakeholders about what constitutes a quality service and negotiate agreed standards of quality.
- Use focus groups after new concepts have been introduced to ascertain how different stakeholders have interpreted them. Stress their symbolic significance as either reinforcing or challenging existing cultures depending upon what is required.

Quality improvement

- Focus on systems and processes. Ask staff to identify areas that create difficulty for them as the first step to quality improvement.
- Acknowledge and promote the achievements of teams that make improvements, no matter how small.

Organisational learning

- Keep all staff informed about problems and improvements that occur.
- Encourage presentations of successful and unsuccessful improvement attempts and promote a system-wide examination of learning that occurs.
- Ensure that there are regular audits of records so that once-off situations are not overlooked.

Customer focus

- Encourage customer complaints and dialogue about satisfaction. Work teams should not fear criticism but only criticism from which they do not make improvements. Encourage a record of complaints and responses.

Conclusion

Organisational learning encompasses the development and transmission throughout the organisation of knowledge that will enable it to adapt to changes in its environment. It depends upon a culture of continuous quality improvement in which people feel trusted and free to take risks, to innovate and to share knowledge of both successes and setbacks. This requires careful attention to existing culture(s) and to creating conditions that enable learning to take place. Leaders introducing TQM should carefully monitor the cultural dynamics of the organisation, how organisational experiences are

interpreted, and how learning is recognised, formalised and transferred. The presence of many subcultures within health services presents a challenge for leaders. They must draw different workgroups together and prompt them to think critically and systematically in order to identify underlying assumptions and links between different events and interpretations of events within the organisation. Leaders can introduce new artefacts, or reinterpret existing symbols and procedures as ways of introducing TQM. However, if staff perceive these in terms of the old culture, or in unintended ways, the program is likely to fail.

The synthesis of organisational culture and learning (see Figure 1) provides a basis for understanding how subcultures affect the acceptance and implementation of quality improvement programs. The study of cases where this has been applied with TQM would increase our understanding of quality improvement in health care.

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