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Obstacles to TQM success in health care systems

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Abstract

Purpose – Many healthcare organisations have found it difficult to implement total quality management (TQM) successfully. The aim of this paper is to explore the barriers to TQM successful implementation in the healthcare sector.

Design/methodology/approach – This paper reports a literature review exploring the major reasons for the failure of TQM programmes in healthcare organisations.

Findings – TQM implementation and its impact depend heavily on the ability of managers to adopt and adapt its values and concepts in professional healthcare organisations. Unsuccessful TQM efforts in healthcare organisations can be attributed to the strongly departmentalised, bureaucratic and hierarchical structure, professional autonomy, tensions between managers and professionals and the difficulties involved in evaluating healthcare processes and outcomes. Other obstacles to TQM success include lack of consistent managers’ and employees’ commitment to and involvement in TQM implementation, poor leadership and management, lack of a quality-oriented culture, insufficient training, and inadequate resources. The review was limited to empirical articles written in the English language during the past 30 years (1980-2010).

Practical implications – The findings of this article provide policy makers and managers with a practical understanding of the factors that are likely to obstruct TQM implementation in the healthcare sector.

Originality/value – Understanding the factors that obstruct TQM implementation would enable managers to develop more effective strategies for implementing TQM successfully in healthcare organisations.

Keywords Total quality management, Failure, Obstacles, Successful implementation, Health care

Paper type Literature review

Introduction

Healthcare organisations face a number of serious challenges, particularly concerning effectiveness, efficiency and quality. Therefore, there is a pressing need for a new approach in managing healthcare organisations to become more cost-effective in the delivery of high quality healthcare services. Quality management constitutes an appropriate response to these challenges. It is a potential way to improve systems and procedures as effectively as possible by using scientific methods to achieve an optimum outcome. Total quality management as a quality management strategy aims to enhance customer satisfaction and subsequently organisational performance by providing high quality products and services through the participation and collaboration of all stakeholders, teamwork, customer driven quality and continuously improving the performance of inputs and processes by applying quality management techniques and tools.

Total quality management (TQM) became one of the competitive strategies of choice during the 1990s. It has been widely implemented in various firms throughout
the world for achieving greater profitability (Mosadeghrad, 2005). There is a widespread consensus that a successful TQM implementation is related to economic and performance success (Brah et al., 2002; Hansson and Eriksson, 2002; Hendricks and Singhal, 2001; and Kaynak, 2003). The success of TQM in industry has encouraged many healthcare managers to examine whether it works in the healthcare sector. As a result, in the last 30 years, many healthcare organisations increasingly adopted the TQM principles to improve the quality of outcomes and efficiency of healthcare services delivery. An effective TQM implementation enables healthcare organisations to identify clients’ requirements to deliver appropriate care, benchmark for best practices and improve processes to reduce the frequency and severity of medical errors. These activities lead to high quality healthcare services, patient satisfaction, and increased productivity and profitability (Alexander et al., 2006; Macinati, 2008).

Nevertheless, the application of TQM in practice involves many difficulties. Many healthcare organisations have found difficulties in implementing TQM successfully (Bringelson and Basappa, 1998; Ennis and Harrington, 1999; Huq and Martin, 2000; Zabada et al., 1998). Although some quality improvement projects were successful (Chattopadhyay and Szydlowski, 1999; Francois et al., 2003; Jackson, 2001; Klein et al., 1998; Motwani et al., 1996), most of these have been limited to a small number of healthcare organisations or a few departments in a healthcare organisation or a narrow aspect of organisational performance.

Total quality management has its roots in manufacturing sector. There are questions regarding its applicability to the healthcare sector (Atchison, 1992; Zabada et al., 1998). The concept of TQM consists of two components: values, concepts and principles (i.e. management support, employee involvement, and teamwork), and techniques and tools (e.g. statistical process control tools). TQM techniques and tools may be applicable everywhere. However, its values and principles need to be adapted to strong professional healthcare settings. Simply adopting TQM principles will not guarantee its success. An application of hard factors of TQM without updating organisational structure and improving its soft factors leads to an insignificant improvement in organisational performance and early abandonment of this strategy. A superficial implementation of TQM results in low or even no productivity improvement. This causes a negative psychological effect on employees. Subsequently, employees lose interest in TQM implementation.

Instances of failed TQM initiatives have led researchers to focus more directly on the shortcomings and difficulties associated with TQM (Amar and MohdZain, 2002; Bhat and Rajashekhar, 2009; Jun et al., 2004; Ljungstrom and Klefsjo, 2002; Salegna and Fazel, 2000). However, obstacles to implementing TQM successfully in healthcare organisations have not been fully addressed.

**Aims**

This study aims to identify factors underlying failures in TQM implementation in healthcare sector. The aim is to get a better understanding of why such TQM implementations fail so frequently. In addition, the study has endeavoured to present reasons for their occurrence and to make recommendations that help healthcare managers to develop more effective strategies that will enhance the chances of achieving business excellence.
Method
A meta-analysis of TQM empirical implementation barriers studies in healthcare organisations was undertaken. A total of 15 electronic databases were searched in this systematic and meta-analysis literature review. These include PubMed, Academic Journals Database, Directory of Open Access Journals, Ebsco research databases, Elsevier science, Emerald, Google Scholar, JournalSeek, JSTOR, ScienceDirect, Social Science Citation Index, SpringerLink, Social Science Research Network, Web of Knowledge, and WorldWideScience. Keywords to search the literature included total quality management, implementation, healthcare organisations, failure, barriers, and obstacles.


The selection was restricted primarily to the following studies (see the Appendix):

- published between 1980 and 2010;
- those written in English;
- examined TQM implementation in healthcare organisations using an empirical approach (quantitative or qualitative); and
- identified reasons for TQM failure.

After manually screening and evaluation of the related literature, a total of 16 empirical studies reporting TQM implementation obstacles in healthcare organisations were selected for this systematic and meta-analysis. The empirical studies were conducted in nine countries. A total of ten studies were reported in developed countries and six in developing countries. A questionnaire survey was used for data collection in 11 studies. The rest of studies (five) used case study approach and interviews for collecting data.

Both qualitative and quantitative analyses were used in this study. Content analysis was used to describe and explain the reasons for the failure of TQM programmes in healthcare organisations. NVivo software (version 7) was used for qualitative data analysis and retrieval. In addition, SPSS software (version 11.5) was used to provide descriptive statistics such as frequency and percentage. Regression analysis was used to determine which obstacles were perceived as significant in TQM failure.

Results
The reasons for TQM failure addressed in the literature can be categorised into three groups:

1. ineffective or inappropriate TQM model;
2. ineffective or inappropriate TQM implementation method; and
3. inappropriate environment for TQM implementation.
Ineffective or inappropriate TQM model
Successful TQM implementation requires a clear understanding of the concept and principles of TQM. However, TQM does not provide an explicit theory. While it is widely practiced, there is little agreement on what it is and what its essential features are. TQM is a diffuse concept and an abstract term, with many vague descriptions, and no generally accepted definition or agreed content. Mosadeghrad (2011) in an attempt to define TQM found 73 different definitions of TQM in the literature. TQM has been variously defined as an “Approach” (Flynn et al., 1994), a “Culture” (Kanji and Yui, 1997), a “Philosophy” (Joyce et al., 2006), a “System” (Hellsten and Klefsjö, 2000), a “Strategy” (Harvey and Brown, 2001), a “Programme” (Joss and Kogan, 1995), a “Process” (Almaraz, 1994), a “Technology” (Camison, 1996), and a “Technique” (Wong et al., 2010). Consequently, TQM is used interchangeably with other terms such as continuous quality improvement, quality assurance and total quality control.

Total quality management suffers from both theoretical problems and practical difficulties (Mosadeghrad, 2012). TQM is partially developed (Singh and Smith, 2006; Vouzas and Psychogios, 2007). Some complementary management theories must be integrated with TQM to refine and develop it further to achieve competitive advantage. An intensive knowledge of sociology, psychology and change management helps introduce, institutionalise and manage the TQM change successfully. There is a need for an empirically sound and comprehensive model of TQM to assist managers in planning and executing TQM practices, and monitoring and improving the quality of healthcare services. Nowadays, three major quality management frameworks – standards-based approaches (e.g. ISO 9001); quality award models; and individual developed models – are accepted as guides to TQM implementation.

The ISO 9001: 2000 offers a system of quality assurance to healthcare organisations. It gives them a degree of standardisation and procedural control. ISO 9001 directs managers to re-examine all their processes and identify any discrepancies between what employees are actually doing and what the documentation asks to be done. It focuses on processes rather than outcomes (Ozturk and Swiss, 2008). ISO 9001 encourages employees to demonstrate compliance with the procedures, rather than to strive for continuous improvement. ISO focuses on doing things right, not necessarily doing the right things right from a customer point-of-view. ISO 9001 only ensures that a quality management system exists. It cannot guarantee its functionality. It is not a guarantee of quality or better performance (Čurkovic and Pagell, 1999; Martínez-Costa et al., 2009). It is possible to have an ISO 9000 system and still manufacture/deliver poor quality products/services. ISO 9001 also leads to an increased bureaucracy within an already complex and highly bureaucratic healthcare system. It results in additional paperwork related to new protocols and procedures (Poksinska et al., 2006; Singels et al., 2001). ISO provides a generic guideline that comes from industry experience and does not specifically address all areas relevant to healthcare. Therefore, quality improvement is mainly limited to supportive and administrative functions, rather than clinical and patient care activities. Simply implementing ISO alone does not appear to be comprehensive enough to gain competitive advantages (Corbett et al., 2005; Najmi and Kehoe, 2000; Sun et al., 2004; Terziovski et al., 2003). Therefore, healthcare organisations should not solely rely on the ISO quality management system. ISO 9001, through offering a set of policies and guidelines for quality management provides a foundation to TQM. It could be a starting point for TQM implementation.
Quality award models provide a framework of essential quality management practices for organisations to implement TQM programmes, benchmark best practices and perform self-assessments against established criteria to identify their strengths and weaknesses (Ghobadian and Woo, 1996). There are many quality award models all over the world. Some of them are regional awards (e.g. Minnesota Quality Award) and others are national (e.g. Malcolm Baldrige award) or international (e.g. European Foundation Quality Management Award in Europe). These TQM frameworks are extensively used in healthcare organisations for self-assessment and performance improvement purposes (Foster et al., 2007; Nabitz et al., 2000; Vernero et al., 2007). However, they have foundation in industry and have not been developed specifically for the healthcare sector. Incorporating clinical standards in these quality award models provides the potential to deliver high quality healthcare services. It encourages healthcare organisations to improve clinical procedures, rather than being limited to administrative activities.

Many quality gurus and researchers developed various TQM models (Baidoun and Zairi, 2003; Hansson and Klefsjö, 2003; Kakkar and Narag, 2007; Srdoc et al., 2005; Sureschchandler et al., 2001; Thiagaragan et al., 2000; Venkatraman, 2007). Their effectiveness depends on how effectively they are developed and incorporated into organisational policies and practices. Most of these TQM models are general guidelines and do not specifically address all areas relevant to the healthcare system. Hence, there is a need for a suitable TQM framework for the healthcare sector.

**Ineffective or inappropriate TQM implementation method**

Many of the failures of TQM are attributed to the methods of implementation (Bayazit, 2003; Hansson and Klefsjö, 2003; Seetharaman et al., 2006). The implementation of TQM principles and practices (i.e., management commitment, teamwork, focus on customers and continuous improvement) must be supported by techniques and tools to achieve business excellence. There is no standard method for implementing TQM core principles in an organisation to achieve good outcomes. This is left to the interpretation of quality practitioners. Consequently, the same TQM programme may result in different outcomes in different organisations.

There are three main reasons for an ineffective TQM implementation method, i.e. over use, under use and misuse of quality management practices, techniques and tools. Overuse occurs when managers apply sophisticated techniques and tools that are beyond the understanding of the employees. Therefore, they cannot implement the methods completely and properly. Under use occurs when organisations do not fully implement all of the key values and principles of TQM. Most failures with TQM result from partial implementations of its principles and practices. Misuse occurs when managers implement practices, techniques and tools, which are not compatible with the organisation’s cultures and operations (e.g. using participatory management techniques in an organisation with authoritative leadership style and individualistic culture).

**Inappropriate environment for TQM implementation**

Total quality management programmes will not succeed unless rooted in a supportive environment (supportive leadership, quality culture and appropriate structure). Overall, 39 barriers to implementing TQM successfully in healthcare organisations
were identified in the reviewed empirical studies. These barriers were categorised into five groups:

1. **Strategic barriers:**
   - poor management and leadership;
   - lack of top management support;
   - management turnover;
   - middle-management resistance to change;
   - inappropriate planning;
   - placing a poor priority on quality improvement; and
   - unlimited demand for healthcare services.

2. **Human resources barriers:**
   - lack of employees’ interest in TQM;
   - lack of employees’ motivation and satisfaction;
   - lack of employees’ commitment and involvement;
   - physicians’ indifference towards TQM;
   - professional autonomy;
   - incompetent employees;
   - employees’ resistance to change;
   - lack of good human resource management;
   - inadequate empowerment at all levels;
   - employee shortage, and increased work load;
   - poor education and training;
   - lack of recognition and reward for success; and
   - lack of union co-operation.

3. **Contextual barriers:**
   - inappropriate organisational culture;
   - inter-departmental barriers;
   - difficulties in changing organisational culture;
   - lack of team orientation;
   - poor communication; and
   - mindset barriers.

4. **Procedural barriers:**
   - lack of process focus;
   - lack of focus on patient satisfaction;
   - lack of customer awareness;
   - complexity of processes;
   - fragmentation of activities;
bureaucracy and paperwork; lack of measurement, evaluation and self-assessment; and difficulties in measuring quality.

(5) Structural barriers:
- inappropriate organisational structure;
- lack of physical resources;
- lack of information systems;
- lack of financial support; and
- time shortage.

Table I shows the ten most frequently mentioned environment-related reasons for TQM failures in literature. Lack of employees’ and managers’ consistent commitment to and involvement in TQM activities were the most cited barriers to TQM implementation in healthcare organisations. Regression analysis showed that management turnover, middle management resistance, lack of resources, inappropriate culture and short-term thinking was the major barriers to implementing TQM in healthcare organisations.

Poor leadership, inappropriate organisational culture, lack of employee involvement, lack of top management support, and lack of training were the most mentioned barriers to successful TQM implementation in developed countries. In contrast, lack of management support, lack of employee involvement, poor leadership, lack of training, inappropriate organisational culture, lack of recognition and reward for success, and hierarchical and authoritative organisational structure were the most cited barriers to successful TQM implementation in developing countries.

According to Easton (1993), the moderate results of implementing TQM programmes in some American companies were attributed to deficient leadership. The importance of visionary leadership, including philosophy, style and behaviour in TQM implementation was in fact addressed in the previous studies (Alexander et al., 2007; Berwick et al., 2003; Maguernez et al., 2001; Mosadeghrad, 2005; Wardhani et al., 2009). Top-down authoritative leadership style must be replaced with a more supportive, democratic, charismatic and participative style that allows employees’ involvement in TQM activities.

<table>
<thead>
<tr>
<th>TQM failure reasons</th>
<th>Frequency of occurrence</th>
<th>Prioritised rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of employees particularly physicians’ involvement</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Lack of consistent top management support</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Poor leadership and management</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Lack of a quality-oriented culture</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Insufficient education and training</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Inadequate resources</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Lack of a robust monitoring and measurement system</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Employee shortage</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Lack of a plan for change</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Poor communication</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

Table I. Prioritisation of barriers to TQM implementation in healthcare.
Just as managers can support TQM, they can also obstruct it. Juran (1988) believed that most of the problems associated with quality are attributed to management. Most obstacles to TQM implementation such as lack of a vision, lack of a strategic plan, poor organisational culture, poor communication, lack of employee empowerment, inadequate resources, and employee resistance to change are linked to how effectively the TQM programme is managed. The implementation of quality management itself requires “management quality”. TQM implementation and its impact depend on the ability of managers to adopt and adapt its values and basic principles in professional healthcare organisations. It requires a change in management thought, attitude, behaviour and roles. Managers must discard outdated management methods and accept the philosophy of continuous quality improvement. The success of TQM depends largely on management ability to create a vision, plan for, and lead the organisational change required for TQM success. Top management needs to ensure that all facets of the organisation (i.e. the organisational structure, leadership styles, incentive schemes, trainings, communications, procedures and processes) reflect TQM values and principles.

As healthcare organisations are growing in number and complexity, there is a growing need for professional managers and leaders who are accountable for continuously improving corporate (clinical, operational and financial) performance. The introduction of professional management into the healthcare system increases managerial control of services and promotes organisational productivity. Healthcare organisations can be managed better by having well-trained managers supporting and leading the teams that manage the processes to deliver the best possible services for patients. Managerial knowledge and skills are key success factors for the effective management of healthcare organisations.

Lack of top management involvement in and commitment to TQM change is the common reason for TQM failure (Hamidi and Zamanparvar, 2008; Kozak et al., 2007; Mosadeghrad, 2005). Low management commitment and involvement can lead to failure in as many as 80 per cent of organisations (Jaehn, 2000). Juran and Gryna (1993) attribute the failure of the quality management initiatives in the West in the 1970s and 1980s to lack of top management involvement in quality management. Top management should be very committed to and fully involved in continuous quality improvement. The degree to which employees adopt TQM strategy will be contingent upon the degree to which top managers are involved in, and committed to the TQM principles. A lack of TQM knowledge, frequent top management turnover, avoiding taking risks and ineffective communication between managers and employees are the main reasons for the low management commitment to TQM programmes (Deming, 1986; Mosadeghrad, 2005; Soltani et al., 2005; and Psychogios and Priporas, 2007). Therefore, there is a need for management transformation. Continuous education and training help managers to understand the philosophy of TQM and implement it properly.

Management turnover is one of the most important obstacles to successful TQM implementation. Management turnover increases the chance of subjective management, leading to unfavourable outcomes. Managers may avoid taking risks and making radical changes because they are afraid that it may cost them their jobs (Soltani et al., 2005). Therefore, managers cannot plan for the long term and have to maintain the status quo. The job security of managers encourages long-term planning and their commitment to pursuing long-term objectives. Mobility of management was in fact, considered a deadly disease for business by Deming (1986).
According to Manz and Sims (1993), middle managers are the biggest obstacle to successful TQM implementation. Without middle manager’s support, the TQM programme would be halted. Middle managers may see that the transition towards TQM cost them in status, power and recognition. Lack of involving middle managers in TQM initiative makes them resist the TQM change programme and react with suspicion and uncertainty (Balding, 2005; Jacobsen, 2008; Harrington and Williams, 2004). Top management should clarify middle managers’ roles in relation to TQM implementation, provide necessary education and training and empower them to communicate the TQM message to employees (Dale and Cooper, 1994).

A successful TQM implementation needs a long-term strategic plan. According to Newall and Dale (1991), lack of detailed planning prior to the introduction of TQM in organisations is a key reason for its future difficulties there. Many TQM implementation problems can be overcome by proper planning. Quality management programmes will fail if quality objectives are not incorporated into the organisation’s strategic planning process. Strategic quality planning is essential for TQM initiatives to be successful (Chan and Ho, 1997; Francois et al., 2003; Hamidi and Zamanparvar, 2008). Strategic quality planning is necessary for integrating quality objectives, requirements and targets into organisational operations and activities.

Poor education and training are also major obstacles to the development and implementation of TQM initiatives. Training and education are key components in the TQM programme, and have an important role in establishing a common language of quality, and securing commitment and behaviour change towards continuous quality improvement. The review of literature corroborates the importance of appropriate education and training in the process of TQM implementation (Chow-Chua and Goh, 2002; Huq and Martin, 2000; Maguerez et al., 2001). Education and training enhance employees’ job-related skills, communication and teamwork, and help to overcome employees’ resistance to TQM change (Kaynak and Hartley, 2008). Education and training can result in a more satisfied workforce and an environment for innovation and creativity. Healthcare managers should develop the technical capabilities of employees and enable them to improve the quality of services continuously. Education and training provide the necessary knowledge, skills and abilities for employees to do their job effectively, diagnose and correct their daily problems.

Organisational culture is one of the most important influencing factors in the implementation of TQM in healthcare sector. Cultural variables are found responsible for more than 50 per cent of the variance in TQM implementation (Mosadeghrad, 2006; Wakefield et al., 2001). The most difficult obstacles to the application of TQM in health sector are cultural (Huq and Martin, 2000; Zabada et al., 1998). Creating a supportive culture is one of the most frequently mentioned difficulties to TQM implementation in healthcare sector. Therefore, organisational culture is the most often ignored component of TQM during the course of TQM implementation. There are powerful sub-cultures such as physicians, nurses and paramedics who have their own interests. They define quality differently and follow specific ways to achieve it. Consequently, healthcare managers have little control over TQM implementation (Natarajan, 2006; Piligriiene and Buciniene, 2008; Zabada et al., 1998). Therefore, cultural changes are required to implement TQM successfully. A “corporate culture of quality” should be developed. This involves building and enhancing trust, motivation, empowerment, co-operation, risk taking, innovation, and continuous improvement through job
security, teamwork, support and equitable compensation (Mosadeghrad, 2006; Wardhani et al., 2009). To create a quality culture, a change in organisational factors, both soft (i.e. shared vision, values and believes) and hard (i.e. systems and structures) is needed. Strong and inspirational leadership has a key role in changing the organisational culture. Continuous and widespread education and training provide a good foundation for cultural change required for TQM implementation. However, it needs to be supplemented by appropriate supportive systems to encourage effective communication and people involvement in TQM projects.

The success of TQM also depends on its fit with organisational structure. Structure has to follow the strategy. The very complexity of the healthcare system and its bureaucratic and highly departmentalised structure can pose a significant obstacle to the implementation of TQM and decrease its effectiveness (Adinolfi, 2003; Badrick and Preston, 2001; Jabnoun, 2005; Lim and Tang, 2000; Naveh and Stern, 2005). Mechanistic, bureaucratic and authoritative structures, risk aversion, and complexity impede successful TQM implementation. McLaughlin and Kaluzny (1990) and Short and Rahim (1995), argue that the complex, bureaucratic and highly departmentalised structure, and the multiple layers of authority are the most difficult barriers to implement TQM in healthcare organisations. The traditional hierarchical structure of healthcare organisations exemplifies bureaucratic and authoritative cultures that are not conducive towards employee empowerment and commitment, which are crucial to the successful implementation of TQM (Abd-Manaf, 2005; Shortell et al., 1995; Zabada et al., 1998). Moreover, healthcare settings are structured in departments with significant autonomy of action, which further enhances their ability to resist change (Francois et al., 2003; McNulty and Ferlie, 2002). Such a structure makes it difficult to achieve horizontal coordination and vertical integration, which are necessary for effective TQM implementation.

Specialised accountability combined with professional autonomy segment the work processes. As a result, efforts to improve the quality of healthcare services are stratified hierarchically. Physicians take responsibility for one aspect, nurses for another and managers for still another. No single group is held accountable for the total health care delivery process (Kaluzny et al., 1992; Moss and Garside, 1995). The professional bureaucracy and paternalism (e.g. physician power), and work on human beings limit hierarchical authority and make it difficult for managers to use scientific quality management principles.

Institutionalisation of TQM in healthcare requires building a supportive infrastructure to enhance the effectiveness of implementing its practices. It is very difficult to implement TQM in a rigid mechanistic and bureaucratic structure. Organic structures with low centralisation and formalisation are more conducive to the success of TQM implementation (Jabnoun, 2005; Moreno-Lozon and Peris, 1998; Tata and Prasad, 1998). Decentralisation improves employees’ involvement and participation in TQM activities and reduces power distance within healthcare organisations (Mosadeghrad, 2006). A quality management infrastructure should be established to implement and manage a TQM programme. This should consist of a quality management council, a quality management department, a quality steering committee, functional and cross-functional quality improvement teams, and quality audit teams.

Total quality management should be implemented by the frontline employees. They must take the responsibility for delivering high quality healthcare services. Employee
empowerment, commitment and involvement are key factors in the successful implementation of TQM and, were indeed included in previous TQM studies. Various studies have shown that human resources problems such as lack of employees’ motivation and involvement in TQM activities, their low knowledge and experience about TQM implementation, changing employees’ work habits, lack of team orientation, lack of linkages between employees’ compensation and their performance and lack of time are human resource barriers in implementing TQM successfully in healthcare organisations (Alexander et al., 2007; Francois et al., 2003, Huq and Martin, 2000; Kozak et al., 2007; Mosadegh-Rad, 2005; Ozturk and Swiss, 2008; Withanachchi et al., 2007).

Effective, frequent and immediate recognition and reward improves employee morale, self-esteem, and interest in TQM (Brashier et al., 1996). When employees feel that they are not recognised for their efforts, they become resistant to the TQM programme. This acts as a barrier to the success of the TQM initiative. TQM must be result-oriented in order for employees to believe in it. The TQM implementation should lead to an increase in employee satisfaction and motivation. Financial incentives increase employees’ motivation and involvement in quality management activities. Incurring too much work without providing tangible benefits is the most significant reason for employees’ apathy.

Physicians play an important role in facilitating or impeding TQM implementation. However, getting them involved in TQM programmes is a challenge for managers. Potter et al. (1994) believe that without physicians’ involvement, quality improvement would be limited to issues marginal to the central problems of health care organisations. Physicians have remained divided from managers. They believe that TQM adds unnecessary bureaucracy and is used mainly for cost control and it is, therefore, applicable only to administrative and support functions (Ennis and Harrington, 1999; Moeller, 2001; Zabada et al., 1998). As a result, physicians do not feel that TQM activities are part of their responsibilities. Subsequently, they are less likely to participate in TQM activities, less likely to receive education and training in quality improvement methods and to use quality improvement methods in their daily work (Cohen et al., 2008). Physicians are not likely to be distracted from their patients in a fee-for-service payment system towards a quality management system that expects them to be more transparent, more responsible, more customer-oriented, and to follow managerial rules and standards.

Lack of time is the main barrier for physicians’ low participation in TQM activities. They are more devoted to patient treatment than to TQM. They perceive a conflict between allocating time for treating patients and performing TQM activities (Maguerez et al., 2001; Valenstein et al., 2004). Physicians by tradition expect more autonomy and do not accept changes that might limit their power (McLaughlin and Kaluzny, 1990; Ruiz and Simon, 2004). Hence, perceived loss of autonomy is another reason for the high resistance among physicians. They think the standardisation concept in TQM may limit their freedom to diagnose and prescribe freely. Physicians’ relative inexperience and unwillingness to work as team members are also contributing to their apathy to TQM (Zabada et al., 1998).

Managers must develop systems to encourage and reward physicians’ commitment and participation though training and financial incentives. Physicians would be more involved in TQM activities if they realised its benefits to them. The active involvement
of top management can also encourage physician participation in TQM projects. It is not necessary to include every physician in all TQM activities. Incorporating well-respected and knowledgeable physicians into quality management roles facilitates physicians’ involvement in TQM programmes (Glickman et al., 2007; and Wakefield and Wakefield, 1993). They then act as models, mentors and motivators for other physicians.

People’s resistance to change is the primary barrier to implementing TQM in an organisation. TQM can be a source of fear and anxiety (Matherly and Lasater, 1992). The reasons for employees’ resistance to a TQM programme may include fear of losing jobs or related benefits, personal uncertainty, group pressure, perceived loss of control, a lack of knowledge of the nature and the impact of the proposed change, and a lack of adequate planning (Alas, 2007; Carter, 2008; Harrington and Williams, 2004; Self and Schraeder, 2009). Many TQM programmes fail because too little attention is paid to the human factor. The implementation of TQM results in more demands on employees and more work pressure. This is often caused by standardisation, increased bureaucracy, new responsibilities and increased accountability to managers (Parker and Slaughter, 1993; Senge, 2006; Walston et al., 2000). Human resource systems must support the TQM programme through the development of the necessary motivation, attitudes and the competencies.

Managers must minimise the sense of ambiguity among employees using effective communication and planning. Managers must justify TQM implementation in the organisation. They should persuade employees that they are serious about TQM. Communication is needed to clarify the future state for employees. Managers must let employees know what would happen and how they would be affected by the TQM programme (Abraham and Crawford, 1997). Managers should create the belief among employees that the appropriate training and education will be provided. Hence, employees will be able to perform well and take advantage of opportunities that may arise from implementation of the TQM initiative (Self and Schraeder, 2009).

According to Sewell (1997), serious problems in TQM implementation are likely to occur if there is any attempt to achieve quality without a full understanding of the customers’ needs and requirements. However, the paternalistic attitude among many healthcare professionals that only they can define quality attributes limits the application of customer-driven TQM programmes (Milakovich, 2005). Customer focus in TQM requires that customers are identifiable and can define and recognise quality. However, it is difficult to identify customers and satisfy their needs in healthcare sector. Unlike in most other industries, purchasing decisions, payment and receipt of healthcare service are separate. The patient is not necessarily the ultimate “external” customer in healthcare. Other external groups such as the government, employers and third party payers affect patient expectations and this makes it difficult to anticipate patient needs. Patients, in general, lack the ability to judge the technical aspects of healthcare services (Cheng and Chung, 2002; Naveh and Stern, 2005). Many patients do not even know their own healthcare needs (Berwick et al., 1992) or even their rights in healthcare organisations (Mosadeqghrad and Esna-ashary, 2004). Therefore, healthcare organisations tend to focus on their internal quality requirements rather than customers’ needs (Yang, 2003).

Failure to provide adequate resources to support quality improvement programmes is another cause for the failure of TQM (Alexander et al., 2007; Lee et al., 2002; Moeller,
Allocating necessary resources are essential for TQM programmes to be continued effectively. Those healthcare organisations struggling financially will not be able to sustain the benefits of TQM programmes. Purchased materials are often a major source of quality problems (Flynn et al., 1994; Zhang et al., 2000). An effective supplier relationship management system reduces procurement costs, enhances the quality of purchased products and provides differentiated and customized services for healthcare organisations (Rao et al., 1999; Slaight, 1999).

Several studies reported that a lack of good information system and information required for quality management, influenced the success of quality improvement (Hamidi and Zamanparvar, 2008; Lee et al., 2002; Moeller, 2001). Fundamental to TQM is collecting timely, reliable and relevant data and information from both inside and outside the organisation for assessing, improving and evaluating purposes (Joss and Kogan, 1995; O’Brien et al., 1995). Such information is necessary for the appropriate usage of resources, identification of customer requirements, evaluating the effectiveness and efficiency of the operations and determining the cause of quality problems. Using a quality-oriented information system helps in studying the processes and identifying and then prioritising quality problems. It allows the sharing of best practices among departments and across organisations, and enables the widespread automated collection of data to support quality improvement efforts (Dewhurst et al., 2003; Ransom et al., 2005). Using information technology supports TQM implementation (Rivers and Bae, 1999).

Total quality management focuses on studying, understanding and improving the processes. Many TQM writers have pointed out the importance of focusing on the effective management of processes (Huq and Martin, 2000; Mosadeghrad, 2005; and Raja et al., 2007). Quality should be incorporated in the organisation’s processes and practices. The prevalent processes, procedures and practices in healthcare can promote or hinder efforts to improve performance. Major procedural problems that healthcare organisations may encounter during the TQM implementation tend to be as follows: complexity of processes, bureaucracy, and difficulties in measuring and controlling healthcare outcomes (Bucuniene et al., 2006; Huq, 2005; Mosadeghrad, 2005; Seetharaman et al., 2006).

Implementing TQM in healthcare organisations requires an understanding of the particular nature of the sector, which influences the applicability of TQM practices. Healthcare systems are among the most complex systems serving humans. Delivery of healthcare services represents a complex collection of diagnostic, therapeutic and logistic processes, all of which must be highly coordinated to ensure the delivery of quality healthcare services. The professional dominance environment of healthcare, the complex nature of healthcare practices and ethical considerations add to the complexity (Kimberly and Minvielle, 2000). The complexity in health care is an obstacle to systems thinking, which is critical in successful TQM implementation.

Appropriate measurement of processes and outputs/outcomes is key element of TQM success. However, it is difficult to define, measure and control outcomes in healthcare due to the intangibility of healthcare services (Morrison and Heineke, 1992). Every patient is different. Patients cannot be treated like manufactured products. It is difficult to establish a link between the inputs and the outcomes in the health sector as it is done in manufacturing sector. Many variables affect the outcomes in healthcare. The outcomes are also dependent on the compliance and co-operation of patients
themselves. Appropriate models should be used to measure quality healthcare services. A clinical governance system should be incorporated in such models for defining clinical standards and monitoring performance against standards.

Healthcare problems also tend to be more complex and require a high degree of customised solutions (Abd-Manaf, 2005). This aspect of healthcare is in contradiction with the concept of variation control and standardisation in TQM. Furthermore, customers in health sector are powerless to alter healthcare providers’ behaviour through market transactions (Zabada et al., 1998). Patients depend on physicians and nurses. Cultural and socio-demographic factors such as age and gender, severity of illness, and psychosocial factors such as patient fears and dependence on the healthcare providers prevent the expression of dissatisfaction (Arnetz and Arnetz, 1996; Fung and Cohen, 1998; and Satia and Dohlie, 1999).

Total quality management should be institutionalised in healthcare organisations. The Ministry of Health should incorporate TQM concepts as a strategic issue in its agenda for change. A Quality Act should be established at the Ministry of Health level to oblige all healthcare organisations to set up a quality management system (QMS) based on customer focus and continuous quality improvement to ensure high quality healthcare services. A National Quality Board should be formed to ensure the overall alignment of the quality management system. This involves the direct involvement and support of the minister, considering quality as a key national health priority, setting the national quality goals, formulating national quality management policies, allocating resources and clarifying responsibilities. A quality management institute should be formed in the Ministry of Health to oversee quality improvement of healthcare services delivered by healthcare organisations. This involves creating a quality management system for quality improvement and performance assessment, setting quality standards, providing incentives for the introduction and implementation of quality management programmes, training healthcare professionals in quality management concepts, and supporting healthcare organisations to improve their services. Such a structure should also be established formally in healthcare organisations. To sustain this structure and, consequently, the quality improvement activities, support (physical, financial and human resources) should be provided.

The challenges to adopting TQM in healthcare organisations suggest that managers should take a cautious and an incremental approach in its implementation. Radical transformation of processes has been found to have negative and detrimental effects on many organisations (Singh and Smith, 2006). TQM does not produce results in the short term. It does not offer quick answers to all organisational problems (Hendricks and Singhal, 1997; and Huq, 1996). Implementation of TQM is a comprehensive and long-term process. It can take an organisation years to put TQM fundamental principles, procedures and systems into place, create an organisational structure and culture which is conducive to continuous improvement and change the values and attitudes of its people to adopt the new behaviour as a consistent way of working (Dale et al., 1997). The process of adapting and institutionalising TQM is a difficult, long-term, comprehensive and continuous process that needs patience, constant top management support and commitment. It may take five years or longer to implement and institutionalise TQM properly throughout an organisation to achieve the benefits (Satia and Dohlie, 1999; and Saravanan and Rao, 2007). Organisations should be patient and realistic about what to expect from TQM.
Discussion
Managers should minimise five gaps to maximise the benefits of a TQM programme (Figure 1). These gaps include: information-related gap, plan-related gap, implementation-related gap, perception-related gap, and expectation-related gap. Gap 1 is the gap between management perception of the TQM model and the actual specification of the TQM model. It shows the distance between what the TQM model contains and what managers think the model is. Proper education and training help to narrow this gap. Gap 2, shows the gap between management perception of the TQM model and the plan designed to implement the model. Despite careful planning, a TQM initiative can still fail. Gap 3, plan-implementation gap, shows the gap between what the plan says for implementing the TQM model and what actually has been implemented. Gap 4, perceived results- manager’s expected results, is the gap between perceived results of implementing the TQM model and managers’ expected results from its implementation. Finally, Gap 5 is the gap between perceived results of implementing the TQM model and the expected results of the actual TQM model.

The model proposed in Figure 2 helps explain why TQM initiatives fail in practice (Gap 3). Many of the obstacles identified in this study that hinder TQM efforts are leadership factors, or strongly influenced by leadership. Top management involvement and continuous support through setting goals, training, creating a quality culture, and allocating resources improve employees’ satisfaction, which leads to their commitment to quality improvement.

Theoretical implications
From the theoretical point-of-view, this study contributes to the literature in terms of identifying and ranking obstacles to TQM implementation in healthcare organisations. TQM does deliver better performance when an appropriate model of TQM is appropriately implemented in a supportive environment (i.e. supportive infrastructure, appropriate leadership and quality culture).
Managerial implications
From a practical point-of-view, the findings of this paper provide policy makers and managers with a practical understanding of the factors that are likely to obstruct TQM implementation. A thorough understanding of these factors increases the probability of TQM success by predicting and avoiding those barriers during TQM implementation. Consequently, this provides direction and guidance in developing strategies for an effective and efficient TQM transformation. Health care managers will be able to plan better TQM strategies that will avoid some of the problems identified by this article into the implementation of successful TQM initiatives.

Conclusion
This paper uncovers the main impeders to successful TQM implementation in healthcare organisations. The limited success of TQM efforts in healthcare organisations are due to a lack of consistent managers’ and employees’ commitment to and involvement in TQM implementation, poor leadership and management, a lack of a quality-oriented culture, insufficient training in TQM principles and methods, poor planning for TQM deployment, inadequate resources to implement the TQM initiative, limited time to devote to TQM implementation and improper evaluation. Inflexible organisational structure, departmentalised, bureaucratic and hierarchical structure,
physician-oriented healthcare systems, inadequate focus on patients and clients and the difficulties involved in evaluating healthcare processes and outcomes are also barriers to successful TQM implementation in healthcare organisations. These perceived barriers could be overcome by healthcare managers’ and providers’ willingness to change, and a strong clinical and managerial leadership emphasising planning, training, and developing a quality structure and culture. The study suggests a need for a model of TQM to serve as a guide for the holistic implementation of TQM in healthcare organisations. Such a quality management system should not involve extra work for employees, but should rather be incorporated into the existing work schedules.

Limitations and implications for future research
This literature review has examined the last 30 years of quality management systems implementation literature. One reviewer carried out this literature search, and this may have introduced bias into the search process. The review was limited to articles written in the English languages. Relevant information from books, journals and websites written in other languages would provide additional valuable information.

References


### Appendix

<table>
<thead>
<tr>
<th>Author/s</th>
<th>Country</th>
<th>TQM obstacles</th>
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<tbody>
<tr>
<td>Abd-Manaf (2005)</td>
<td>Malaysia</td>
<td>Lack of management knowledge to successfully implement quality management</td>
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<td></td>
<td></td>
<td>Time-consuming quality improvement efforts</td>
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<td>Difficulties in implementing quality improvement efforts</td>
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<td>Mindset barriers</td>
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<td>Alexander et al. (2007)</td>
<td>USA</td>
<td>Lack of sustained leadership</td>
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<td>Lack of extensive training and support</td>
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<td>Lack of robust measurement and data systems</td>
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<td>Lack of incentives and human resources practices</td>
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<td>Lack of supportive context</td>
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<td>Brashier et al. (1996)</td>
<td>USA</td>
<td>Lack of management commitment</td>
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<td></td>
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<td>Lack of employee interest</td>
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<td>Lack of good plans</td>
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<td>Physician indifference towards TQM</td>
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<td>Lack of focus on the process</td>
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<td>Financial constraints</td>
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<td>Chan and Ho (1997)</td>
<td>USA and Canada</td>
<td>Insufficient quality improvement skills</td>
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<td></td>
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<td>Poor planning</td>
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<td>Placing a poor priority on continuous quality improvement</td>
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<td>Lack of employee participation</td>
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<td>Ennis and Harrington (1999)</td>
<td>Ireland</td>
<td>Organisational resistance to culture change</td>
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<td>Lack of financial resources</td>
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<td>Employee resistance to change</td>
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<td>Lack of human resources</td>
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<td>Middle management resistance to change</td>
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<td>Inter-departmental barriers</td>
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<td>Difficulties in measuring quality</td>
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<td>Unlimited demand for healthcare services</td>
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<td>Quality not seen as an issue by staff</td>
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<td>Lack of top management commitment</td>
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<td>Lack of union co-operation</td>
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<td>Lack of enthusiasm</td>
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<td>Huq and Martin (2000)</td>
<td>USA</td>
<td>Lack of planning</td>
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<td>Lack of a conducive and supportive culture</td>
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<td>Poor education and training</td>
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<td>Inadequate methods to measure the cost of quality</td>
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<td>An emphasis on quality of care outcomes rather than both outcomes and the process of care services</td>
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<td>Joss and Kogan (1995)</td>
<td>UK</td>
<td>Lack of leadership</td>
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<td>Lack of senior management commitment</td>
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<td>Lack of adequate planning</td>
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<td>Professionalism/turf battles</td>
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<td>Lack of education and training</td>
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Table AI. TQM implementation obstacles in healthcare organisations (continued)
<table>
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<tr>
<th>Author/s</th>
<th>Country</th>
<th>TQM obstacles</th>
</tr>
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</table>
| Kozak et al. (2007)    | Turkey     | Lack of support of top management  
Lack of employees’ participation  
Lack of a measurement system  
Lack of a reward system                                                   |
| Lin and Clousing (1995)| USA        | Lack of top management involvement and commitment  
Lack of employee involvement  
Lack of focus on patient satisfaction                                           |
| Matherly and Lasater (1992) | USA     | Lack of managers’ participation  
Overlapping of responsibilities of leadership  
Limited resources  
Fear of change  
Work overloads                                                                        |
| Mosadeghrad (2005)     | Iran       | Lack of qualified and competent employees  
Lack of employees’ involvement in quality management activities  
Employees’ shortage  
Lack of top management commitment  
Lack of a strategic plan for change  
Frequent top management turnover  
Lack of a quality culture  
Ineffective communication  
Complexity of processes  
Lack of a quality audit system  
Lack of financial resources                                                |
| Nwabueze (2001)        | UK         | Poor communication  
Employee shortage  
Lack of up-to-date facilities  
Lack of customer awareness  
Lack of effective leadership  
Fragmentation of activities  
Poor scheduling                                                                  |
| Ozturk and Swiss (2008)| Turkey     | Lack of outcome measures  
Lack of participative decision-making  
Distorted incentive systems  
Rewarding the wrong people  
Rewarding the wrong things  
Limited managerial, financial and organisational autonomy  
Lack of doctors’ participation in quality improvement efforts                  |
| Potter et al. (1994)   | UK         | Involving only particular individuals or groups in quality improvement projects  
Inadequate team-briefing approaches  
Lack of staff knowledge of quality management approaches  
Communications barriers  
Lack of customer focus  
Authoritarianism  
Lack of medical staff active involvement  
Incorporating quality approaches in managerial tasks  
Lack of involvement of middle managers                                         |

Table AI. (continued)
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<tr>
<th>Author/s</th>
<th>Country</th>
<th>TQM obstacles</th>
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</table>
| Withanachchi et al. (2007) | Sri Lanka | Lack of leadership  
Lack of top management support  
Lack of continuous monitoring and measurement  
Inadequacy of knowledge and training about TQM  
Lack of employee specially doctors’ involvement  
Difficulty in allocating time for activities  
Work load of preparing TQM related documents  
Lack of financial and other resources  
Difficulty of changing work habits |
| Yang (2003)       | Taiwan   | Functional, bureaucratic and hierarchical structure  
Authoritarian culture  
Leadership style  
Professional autonomy  
Lack of consensus for TQM adoption among physicians  
Internal requirement domination  
Manpower shortfall |

Table AI.

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