

Can Total Quality Management Improve the Quality of Care in Saudi
Arabian Hospitals? A Patient and Service Provider Perspective

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Table 1: List of Abbreviations

The abbreviation	Its meaning
KSA	Kingdom of Saudi Arabia
UAE	United Arab Emirates
TQM	Total Quality Management
HC	Healthcare
CSFs	TQM Critical Success Factors
CUBAHI	Central Board of Accreditation for Healthcare Institute
JCI	Joint Commission International
H.E	Health Education
H.P	Health Promotion
AHA	American Hospital Association
OHPs	Other Healthcare Professionals
PE	Patient Education
MOH	Saudi Ministry of Health
MOEP	Ministry of Economy and Planning
NPPM	Saudi Nursing Procedure Manual and Policy
WHO	World Health Organization
PCC	Patient Centered Care

Table 2: Definitions of Terms

The key term	Definition
TQM	A management philosophy which develops all management principles and practices from the belief that continual improvement of quality is the key to success Deming (1986)
CSFs	Critical areas of managerial planning and action that must be practiced to achieve effective quality management in business unit.” Seraph et al. (1989).
Health Education	A direction of experience learning that is directed specifically towards behavioural traits or problems, that focuses on altering negative view points, as well as individual or group belief and behaviour, as this can potentially increase health levels by motivating individuals to adopt a lifestyle that improves long-term health benefits (MOH, 2011c, p. 3).
Promotion of Health	A process that enables individuals to improve their level of autonomous health control, together with improvement, which advances the focus on individual behavioural traits through interventions that are wide ranging both socially and environmentally (WHO, 2005, p. 1)
Culture	Culture is a mix of individual and group global human interactions that focus on particular behaviours transmitted and understood through communication (Giger & Davidhizar, 2002, p. 185).
Culture sensitivity	A respectful attitude that is shown towards a different individual culture (Kim-Godwin et al., 2001, p. 920).
Practice-based	A practice-based technique is enacted between theoretical enquiries and practice that is informed by research, which is made up of various research models that are involved within the practice (Furlong & Oancea, 2008, p. 6).
Competency	Competency is when an individual is enabled to perform a specific job to their best potential through a set of acquired knowledge, skills, and attitude, as shown by the International Board of Standards for Training, Performance and Instruction (IBSTPI) (Klein, 2004, p.14).

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Abstract

Background

The purpose of this study was to explore existing TQM practice in Saudi Arabian public hospitals, with the aim of improving quality of care, efficiency and productivity, and promoting strong patient satisfaction. Saudi Arabia has made significant investments in its healthcare system, but the country has not achieved desired returns in terms of quality outcomes and patient satisfaction. Considering that globally, regionally and domestically TQM, quality of care (customer service) and patient satisfaction (customer satisfaction) are receiving increasing attention in the healthcare sector, it is essential to evaluate TQM especially, in the services sector.

Methodology

The mixed method approach was deployed to allow for the across-method triangulation of both qualitative and quantitative methods, to bring depth of insight and increase generalisability. Qualitative semi-structured interviews were the tool of choice to collect data from TQM managers and head nurses, while quantitative questionnaires gathered data from both nurses and patients at the main customer interface point. Data were collected at two public hospitals based in the capital city of Riyadh, Saudi Arabia.

Findings

Qualitative findings reveal five themes: the need to create synergy between TQM practice and levels of understanding throughout the organisation, taking action to improve communications by establishing effective inter-institutional communication strategies (IICSs), placing greater targeted investment on enhanced competency development, training and the need for institutionalisation of transformational leadership throughout the hospitals. Quantitative findings showed that nurses and patients were dissatisfied with jobs and services, respectively, and that staff training and effective communication are critical factors in the delivery of quality care/TQM practice.

Important and Relevance

This is the first study to test and investigate the three levels of healthcare provider (governmental level, managerial level and operational level) in Saudi Arabia and to assess whether TQM can improve the quality of care in government hospitals.

Conclusion

The successful implementation of TQM, and hence improved quality of care, depends on important success factors such as effective communication, employee training, transformational leadership, staff motivation, measuring, level of understanding and improving patient needs in the healthcare sector.

CHAPTER ONE: INTRODUCTION

Introduction

This chapter focuses on the key aspects of Saudi demographics and psychographics; in particular, the focus is based on the question surrounding what is the true nature of KSA. The second area discusses the reasoning and rationale surrounding the healthcare system, which is part of the planned/command economy of the country. Finally, the main purpose of this thesis is to explore the existing state of total quality management (TQM) practice in healthcare in Saudi Arabian hospitals and to identify the relationship between the quality of care and humans, from both the supply side (nurses) and the demand side (patients) in the context of existing TQM practice in the Kingdom of Saudi Arabia.

The healthcare system in any country is a critical resource that is responsible for maintaining the good health and wellbeing of its resident population, and therefore it must be made a priority. Indeed, in the Kingdom of Saudi Arabia it is one of the principal areas of focus for Saudi authorities, as there is an ongoing policy to ensure the provision of high-quality healthcare services to every person, i.e. the very best “patient-centred care” (Albejaidi 2010).

However, this was not always the case, as prior to the discovery of oil, Saudi society was backward and poor, and any semblance of a healthcare system was limited and based mainly on traditional practices and medicines. The first healthcare department in Saudi Arabia was established in 1925, thanks to the efforts of King Abdul Aziz, but it was not until 1971 that formal planning commenced for a nationwide healthcare system to be rolled out over a series of successive five-year plans (Safi 2016). Through the employment of new technology, and advances in medical practice and safety, the Ministry of Health (MOH) was mandated to improve healthcare provision throughout all state-run hospitals. Today, the MOH is the major government provider and financier of the kingdom’s healthcare services, accounting for 60% of its provision (Alhusaini 2006).

In order for Saudi Arabia to deliver a high-quality service to its resident population, this research proposes that there is an absolute need for management in hospitals whereby there is a clear understanding of what constitutes ‘quality’ and how this should be implemented, as success is more likely if these institutions abide by established quality principles in their day-to-day operations. In fact, this idea has been seen increasingly as a general trend in service industries. For instance, it has been observed that with the burgeoning importance of service industries to the success of most world economies, there is a trend towards implementing TQM

principles and increasing emphasis on the delivery of a first-class service to customers (Rönnbäck and Witell 2008). Recent research on TQM has underscored that there has been a sudden shift in its application, from the traditional manufacturing sector towards active practice in service organisations (Talib 2013).

TQM has been acknowledged more recently as a viable means of establishing sustainable competitive advantage for service organisations, just as it has in many other sectors, resulting in process improvements, business optimisation, waste reduction and improved quality performance (Talib 2013). It would appear that there is a critical need for the application of TQM to reap the stated benefits, as there have been some disturbing developments within the Saudi healthcare sector. Safi (2016), for instance, reported that the cost of healthcare continues to rise steadily in the kingdom, whilst lifestyle-related diseases are on the rise and population growth is high, in tandem with higher life expectancy, thus leading to increases in old age provision and placing significant strain on the Saudi healthcare system. It is further argued that inclusive of Saudi Arabian healthcare arrangements and health care practices, there are voluminous other nations that are going through intimidating challenges due to the absence of specialists, low efficacy, low throughput and high job turnover amongst registered nurses (RNs) and other healthcare professionals (QHPs) (AlYami and Watson 2014). It has been suggested that the extant instability and high turnover found in the Saudi healthcare workforce are in great part due to the fact that the majority of these employees are expatriate nationals (Almutairi et al. 2013, Safi 2016).

Consistent with its mandate to improve the quality of healthcare provision in the country, the MOH has made huge capital investments in the relevant infrastructure, but unfortunately this has not resulted in the desired outcomes, and it continues to fall short of expectations (Ishfaq et al., 2016), thereby suggesting the need for improved efficiency and the more productive utilisation of resources. This problem appears endemic in the Arab world, as it is argued that despite available resources in some Arab countries, development and performance are well below desired standards as a result of a misguided focus on treatment rather than prevention (Makhoul and El-Barbir 2006). In light of this issue, it is notable that the Saudi MOH's efforts and investments are not only directed at improving the quality of healthcare, but there is also a concerted effort towards preventing and reducing disease and promoting good health, with a special emphasis on non-communicable diseases (El Bcheraoui et al., 2015). Nevertheless, there still appear to be questions surrounding the low productivity and inefficiencies which plague the Saudi healthcare system and necessitate further investigation.

The TQM concept is an administration concept, which authorizes each and every contributor of the corporation to promote enhancement in quality as well as performance, so as to initiate beliefs of quality (Talib et al., 2012). TQM practice recognises the importance of process and its improvement in contributing to overall organisational performance (Seetharaman et al., 2006). The basis of this concept is the principle that the cost of correction is greater as compared to the cost of deterrence (Talib 2013). Some useful financial or non-financial measures employed to explore the effectiveness of existing TQM practice and performance measurement systems are unquestionably factors such as quality, customer satisfaction and productivity levels (Seetharaman et al., 2006). In terms of the country context of this study, it has been argued strongly that it is imperative that healthcare institutions in Saudi Arabia adopt a more holistic social approach. This applies not only to the medical perspective of precise diagnosis and treatment, but also to service performance and providing a standard or quality of care in delivery as desired by patients (Alghamdi 2014). This appears to be an area of weakness in the country which, despite heavy investments in the level of productivity and other output measures such as quality of care, all of which will be examined in this thesis, are not up to the standard one would readily expect. Consequently, it is an area of much needed emphasis and will be a potentially good contribution of the study. The main aim of this study, therefore, is to provide an enhanced understanding of the current state of TQM and the health service system in the Kingdom of Saudi Arabia within the context of public hospitals. In so doing, the researcher will explore what the existing strengths and weaknesses of TQM practice are within these institutions. The intention is to minimise potential failure points and propose a programme for the more efficient implementation of TQM programmes, to aid practitioners and improve the overall quality of care for both internal and external customers. It is also hoped that this research work will also contribute to building the existing theoretical literature on the Saudi healthcare system.

A symbiotic relationship exists between the MOH and Central Board of Accreditation for Healthcare Institute (CBAHI) functions within the country. Most hospitals have a specific quality department dedicated to the efficient running of its affairs; however, the influence of quality is still linked inextricably to the “human factor” (Mansour and Muneera 1996, Zamil et al., 2012). The key measure of patient satisfaction is measured through a number of metrics, including dimensions such as patient accessibility to care, speed of caregiving, bed availability and the success of medical procedures, to name but a few (Parveen et al., 2016). The major quandary is the mobilisation of staff in an organised fashion, based around the principles of ‘quality’. One such view of human integration into the quality process is the concept of TQM

(Boon Ooi et al., 2007). Ultimately, for a quality mechanism to fulfil its aim, many variants need to be considered. This thesis will therefore explore how TQM is understood in the Saudi context, specifically in public hospitals, and disclose details on the issues and challenges that are currently being experienced in this setting, which in turn will lead to recommendations for effective TQM implementation practices. For the most part, this thesis will address the following question: “How can TQM lead to high-quality care from patient, nurse, quality manager and governmental perspectives?” This research will also explore the potential benefits of effective TQM implementation and provide and analyse ways in which this philosophy can be promoted meaningfully within these institutions. The mutual complications that result in the disappointment of TQM execution will be detected by it. Along with demonstrating critical success factors in the Saudi healthcare system as it relates to not only the improved productive use of resources, but more importantly also to enhanced quality of care, which is important to customers and the long-term success of these institutions. The findings of this study may also be useful for healthcare provision in other Arab countries; however, care must be taken in making hasty linkages, as it has been observed that each country in the League of Arab States has unique historical, geopolitical, social, cultural and economic characteristics which shape their healthcare systems (Mokdad et al., 2014).

The rationale for this study was a trajectory that attempts to answer the aforementioned question, by examining not only external and final consumers, but also the perspectives of internal customers, particularly nurses, with a view to identifying the impact of existing TQM practice on their output and the overall quality of care. To achieve this goal, the researcher was decided to assume a pragmatist research philosophy. According to Saunders et al. (2012), this philosophy is most useful when researchers believed the most important determinants of the research position or philosophy are the research objectives and aim. Furthermore, according to Kelemen and Rumens (2008), concepts are only relevant when they support action. The researcher thus believes that adopting a mixed method approach to data collection, by using interviews and survey research, was the most appropriate way of gathering information to address and achieve the overall aim and objectives of this research. Pragmatists acknowledge that there are many different ways of interpreting work, and no single perspective or point of view provides the entire picture (Saunders et al., 2012); thus, often, they use multiple methods if they aid in meaningfully addressing research (Kelemen and Rumens 2008).

Section One: Context of the Kingdom of Saudi Arabia

The Kingdom of Saudi Arabia (KSA) is a country with a unique culture, namely an Arabic and moderate Islamic state. The KSA is commonly paying the necessary price for its specific way

of life, which continues to adhere to an inbuilt heritage of centuries past. Furthermore, it is the natural home of Islam, which continues to define culture in the country through the teachings of Islamic values (Long, 2005). It is these teachings that date back to the 7th Century which enable Saudi Arabia to remain distinct from its other neighbours. Nevertheless, the country has developed in recent times to become a multicultural state, as foreign workers actually constitute a total of over 30% of the total population of 29 million inhabitants (Central Department of Statistics and Indicators (CDSI) 2013).

Population and economic overview

Saudi Arabia has commonly been a dynamic state in the Arabian political world, as it is by far the largest nation in the region, comprising 850,000 square miles, or nearly four-fifths of the Arabian Peninsula, which ultimately aligns with its oil wealth (Walston, Al-Harbi and Al-Omar, 2008). In fact, the population of the KSA has benefited greatly from the nation's economy as a whole, which has developed rapidly through the continued exploration of commercial oil (WHO, 2006a: 7). Additionally, through the peninsula, the KSA is aligned geographically with Bahrain, Iraq, Jordan and Kuwait to the north, Qatar and the United Arab Emirates (UAE) to the east and Oman and Yemen to the southern border, while the Red Sea lies to the west and the Gulf to the northeast (Mufti, 2000: 1). See Figure 1.1 for details.



Figure 1. The Kingdom of Saudi Arabia

As of 2014, KSA had a recorded population of 30.7 million (Central Department of Statistics, 2014), thereby making it imperative for the Saudi government to improve its healthcare system to cope with this increase in numbers. This is why, in the period of 2005 - 2008, 84.5 billion in the local currency (Saudi Riyal) was dedicated to healthcare improvements for inhabitants inside the country (MOH, 2008: 106).

Economic overview

Society in Saudi Arabia has been traditionally poor and isolated, and an organised internal system of healthcare has been sorely lacking, as services generally focused upon medicines

and practices of a traditional Eastern persuasion, which continued until oil exploration expanded. Under the authorisation of King Abdul-Aziz Al-Saud (1880-1953), legislation was passed in 1926 to establish a department for health within the country (Mufti, 2000: 3), even though the country remained underdeveloped and poor. Subsequently, the Department of Health took responsibility for organising and supervising the service through various national clinics and hospitals that gradually built up in major urban areas.

In order to create a fully functioning and efficient system of healthcare, the government – through its own determination – initiated the Department of Health together with the Attorney General’s Bureau, which would eventually become known as the General Directorate for Health and Aid (GDHA). Moreover, under the guidance of the attorney general, a health council was created to improve on the lackluster standards in services, as well as to prevent diseases in the country (Mufti, 2000:3). Unfortunately, funds in the first stages of development were deficient, so in spite of the government’s attempts to modernise healthcare, it became increasingly challenging to standardise any improvements. Indeed, it was not until 1954 that the standardised adaptation of healthcare began to take real effect through the MOH being established (Al- Mazrou, Khoja and Rao, 1995). Furthermore, the MOH provided general supervision to both private and public facilities within the healthcare sector.

In 1970, the government commenced its original National Development Plan, to run over the course of five years (Appendix 1), which was a culmination of crude oil revenues over the previous decades. Throughout the years following this era, the healthcare sector has been totally transformed and enhanced through development plans similar to the original. In fact, it eventually became possible for the government to create a modern primary healthcare system, together with organised hospitals and new facilities for research. Nevertheless, an issue that has remained prevalent throughout the course of this internal redesign is that these new facilities have required expatriate medical staff. In fact, the majority of healthcare professionals are expatriates, and there is a noted shortage of Saudi medical professionals (Safi 2016), which potentially brings with it a range of challenges that influence the quality of care provision. Hence, there has been an increased requirement to begin understanding the need for investment in human resources for healthcare, which in turn has created the overseas scholarship programme for nationals who wish to pursue careers in this field (Jannadi et al, 2008: 48). Currently, there appears to be increasing demand to expand the number of hospitals and personnel quickly in Saudi Arabia (Safi 2016), but this clearly necessitates or emphasises the need for the establishment or

maintenance of standards and a focus on TQM that assures quality of healthcare provision.

As such, the findings in this study will be beneficial in this regard.

Religion, culture and Language

There is a relationship between the Islamic system and the spirit, actions, food, language and social customs. Muslims have a firm belief that Allah (the Arabic name for ‘God’) originates health, sickness, and death (Rassool 2000) and hence sickness is not a punishment; however, it’s a compensation of one’s immoralities (Al-Shahri 2002). Due to such sort of faith, healthcare providers have to face certain complications in case people are not concern about their health care. Nevertheless, it is preferable that the Muslims should take proper treatment in sickness. In general, Islam stimulates health by means of reassuring; for instance, reasonable eating, routine exercise, no alcohol, tobacco or substance exploitation, personal cleanliness and breastfeeding (Rassool 2000). A western writer debated on the point that Socio-cultural diversity in Saudi Arabia is spawned by “urban and nomadic, tribal and non-tribal, city-dwellers and villagers, literate and illiterate, open-minded and conservative” (Parssinen, 1980: p. 166). Significantly, Islam is the cornerstone of society in Saudi Arabia and is not merely an ideology to be practiced, as it is embraces the full range of interrelating aspects that constitute a person’s day and life, even though the intricate functions of the religion may vary in interpretation between each individual in adapting to their own form of worship. Essentially, there is a notable variation between the levels of compliance between genders in different groups of Saudi society.

In addition, female participation in the employment market has been a major source of controversy when gender rhetoric gained momentum following the economic upturn of the 20th century (refer to Al-Bar 1984, Chapter 2). Even though it has been hugely beneficial for the nation as a whole to receive revenues from crude oil, which has continued to develop wealth and personal affluence, it has also implanted social problems of its own. For example, with respect to healthcare provision, it has been observed (AlYami and Watson 2014) that the nursing profession is not well received in the wider Saudi community and culture, which exacerbates the manpower challenges faced by the industry – and possibly the overall quality of care provision. Moreover, gender segregation is necessary in the healthcare sector, and this raises a number of issues (Parveen et al., 2016) in the Saudi context. Thus, the focus of this study on nurses as one of the selected research participant groups was shed further light on potential concerns in this regard and suggest how they can be addressed. In addition, it appears that there may be distinct challenges in healthcare provision relative to Western countries which may indeed affect TQM practice in Saudi Arabia.

Social and literacy rates

The country's political system grew in line with the emergence of oil in the 1930s and earmarked the commencement of vast social as well as economic change. At this stage, authorities encouraged the generally nomadic population to resituate to recently constructed towns and villages, based on around strategic industries, which quickly grew through enhanced employment opportunities for both national rural workers and expatriate workers from neighbouring Arab countries and beyond. Hence, this urban transformation enabled the KSA to develop from one of the most rural nations in the world, which was still evident in the 1950s, to an increasingly urbanised state by 1990 (Frisbie, 1995). Up to 77% of the overall population, as of 1992, had become situated in urban centres of more than 2,400 people (Frisbie, 1995). Indeed, geographically about 10 different urban areas were situated around the nation in the 1940s, although the majority were located to the west, notably in the region of Hijaz, home to the grandest city, Makkah, with up to 80,000 people (Al-Khalifah 1995). Additionally, around 85% of the nation's industry and around 75% of total employment are now situated in just four different urban cities (Al-Khalifah 1995, Long 2005).

Socially, Saudi Arabian culture functions through an extensive traditional family network, in which gender roles are defined to emphasise that men protect and provide for the family while the women remain as housewives (Long 2005). Gender differences are also evident in the education system, as from the age of seven there is strict gender segregation, even though formal public education for Saudi men was established in 1952 and for women in 1959. Nevertheless, it should be noted that education has become an integral part of the government's plans, since initiatives were first developed in the 1970s, and has remained free to all citizens at all levels.

Patient safety

The notion of a 'safety culture' has been applied to various industries, in order to avert the possibilities of risk which may otherwise result in accidents caused by carrying out common tasks. Different overviews and definitions are provided for them (Cooper, 2000); for instance, Turner (1989) states that a 'safety culture' is designed to limit possible injuries and dangers that a customer, employee or manager may encounter, by processing a set of attitudes, beliefs, norms, roles, as well as practices that are social and technical. Formerly, the definition of safety culture is "[a] combination of physiognomies and outlooks in corporations and people, which discovered that, by way of superseding priority, nuclear plant safety matters grab the attention guaranteed by their connotation" (The International Atomic Energy Authority (IAEA), 1991). Apart from this, a safety culture has been characterizes as "the outcome of singular and group

beliefs, outlooks, capabilities and forms of behaviour that evaluate the commitment to, and the style and expertise of, an corporation's health and safety agendas” (The UK Health and Safety Commission (HSC), 1993). Likewise, an organisation that is based on interpersonal trust and develops standardised safety procedures through comprehending preventative measures creates a culture of safety through its policies and actions.

Managers, on the whole, can be aided in their evaluation of safety programmes by analysing how nurses differ in their behaviours, beliefs, perceptions, rituals and values in regards to their working environment, which in turn helps develop ways to understand how to increase patient safety levels together with levels of care (Cooper, 2000; IOM, 2000).

Likewise, it can be understood how an employee actually notes and documents errors to ensure safety procedures, as well as perceive potential safety threats to a patient, when a healthcare organisation comprehends the values, perceptions and beliefs that nurses have regarding this issue (IOM, 2002; Reason, 2002). However, it is noteworthy that a central tenet of the effectiveness of patient safety initiatives in Saudi hospitals is leadership, and it is essential to eliminate the sense of fear that exists in terms of placing blame and instead creating a climate of openness and continuous learning (Alahmadi 2010). This should facilitate the basis for the establishment of a safety culture and encourage improvement. This study’s findings will unearth any potential issues in this regard, as it explores TQM practice from nurses and customers’ perspectives.

Patient rights

The patients’ rights initiatives (Patients’ Bill of Rights) in the US have been the most important steps in improving the quality of healthcare (American Hospital Association, 1992). According to AHA (1992), the initiatives emerged in the Patients’ Bill of Right Acts in 1973. The aim of this Act is to provide optimum healthcare within the organisation whilst at the same time improving the relationship between patients and their healthcare provider. Nowadays, the so-called ‘Hospital Assessment of Healthcare Providers and System’ is a new standard for reporting patient satisfaction and is in use in US hospitals (HCAHPS; Centre for Medicare and Medicaid Services, 2013).

Patients’ Rights in Saudi Arabia

The Patients’ Bill of Rights was passed in 2006 by the Saudi government. Saudi Arabia, as with other counties in the Middle East, has invested millions in its healthcare provision. The MOH, for instance, controls 60% of healthcare in the country, and in 2009 it introduced the

Central of Board of Accreditation of Healthcare Institution (CBAHI) to mirror the US Joint Commission.

Saudi cultural sensitivity supports patients' rights. Albishi (2004), for example, claims that the Saudi perspective on patients' rights, when compared with Western and Eastern cultures and perspectives, differs substantially. In some Eastern cultures, people consider that is unacceptable to inform a family member that someone has a serious disease such as cancer, in order not to cause more pain to their love ones. Furthermore, Saudi patients put their absolute trust in physicians, as they are far more knowledgeable, and this in turn helps them question what has been prescribed by the physician.

Healthcare services provided by the MOH

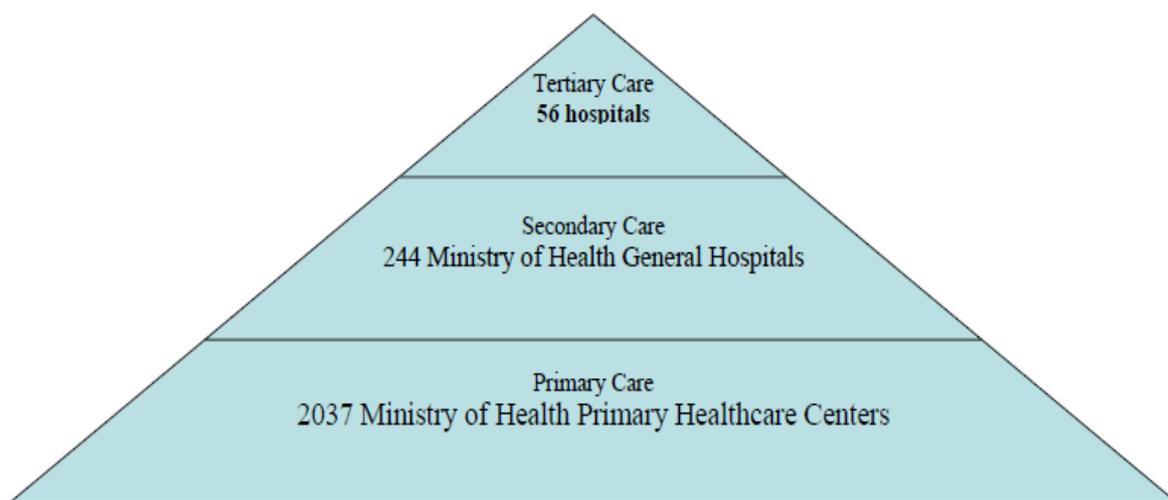


Figure 2. Healthcare services provided by the MOH (Albejaidi 2010, p. 4)

During the 1990s, the MOH commenced its TQM programme in hospitals after it observed that those facilities which did utilise TQM, such as KFSH and RC and KKEH, had begun to see some benefits. Consequently, the MOH undertook a new project, which incorporated the Hospital Administration Development (HOSAD) programme as used in the US (Al-Abdul-Gader, 1999). This was developed to aid the ministry in constructing a detailed course of quality assurance initiatives, and it was implemented for a period of years. However, it became impossible to attain the ultimate desired objectives, as the hospitals and medical facilities controlled by the ministry had no standardised levels of quality. Similarly, the infrastructure of the hospitals throughout the country had no safety or quality structure, which meant that any implemented ideas were not substantiated. Indeed, this was hindered by the fact that a General Directorate of quality assurance was never placed within the MOH until 2000 (Minister Memo No. 1523/11 of July 1 2000) (Naiaz, 2005), following which many successful quality initiatives

have been implemented through the overall system of health in the KSA. (See Figure 3) services provided by MOH.

The MOH established the Central Board of Accreditation for Healthcare Institute (CBAHI) in 2006, to develop the process of standardised accreditation in both the private and public sectors, and approved the standard working manual in the same year. This helped implement standardisation throughout the healthcare system through the joint effort of the sector within the country, comprising experts from different areas: Commission for Health Specialties, KSFH and RC, the MOH, Saudi ARAMCO, Services for the National Guard, the healthcare service within the Armed Forces, Security Forces Healthcare, as well as the private sector (see Figure 1.3 for a breakdown). Subsequently, following the increased effort exerted through this conglomeration to structure functional standards of quality in hospitals, the CBAHI was able to accredit 21 more hospitals by 2010 (Al-Riyadh, 26 July 2010).



Figure 3. Hospital distribution in the Saudi Arabia healthcare system

Ultimately, documentation around the globe has shown how to improve service quality in healthcare settings and in countries such as the KSA.

Primary Care

In September 1978, Saudi Arabian authorities initiated the “Alma-Ata Declaration” into its primary care policy, which helped instil an understanding of the necessity for first-stage participation in healthcare, in order to accomplish the objective of a universal approach (Al-Ahmadi and Roland, 2005: p. 2). Through the declaration, great interest gathered momentum in anticipation of the opening of primary healthcare centres across the country, and as a result 1,925 units had been opened by 2006, with a mean attendance of 8,727 individuals. Similarly, through the MOH’s continual developmental procedures for improved access to facilities, there has been a marked increase in the success in prenatal care, at 67% and 95%, and vaccination programmes, at 83% and 94% (El-Gilany and Aref, 2000; Al-Teheawy and Foda, cited in Al-Ahmadi and Roland, 2005: p. 2).

Secondary Care

As patients are commonly admitted or referred to secondary care in Saudi Arabia, from the initial gateway stage of primary care, this level of the organisational pyramid has become intrinsic to how the overall service works. Indeed, most services within secondary care can be located in Saudi Arabia's 281 hospitals, which are managed by regional directors at the district level. Moreover, various services, issued through the government, are continually increasing in number, namely 38 public hospitals and 113 private hospitals, which can be found in major cities or urban centres and function under the jurisdiction of the MOH (see Table 1). What is more, due to the inflated revenues from crude oil, there has been a significant increase in the construction of hospitals throughout the nation, which aligns with the fact that the wealth gained through oil has decentralised the overall delivery of healthcare, as there used to be a distinct reliance on Riyadh (the capital) for general hospitals in the past. Conversely, recent development has shown how this service should be delivered fully to help more individual regions obtain their own specialist facilities, as shown for the period 2008 – 2014 (see Table 1).

Table 1 Individual HC sectors in the KSA and numbers of hospitals

Sector	Year	Hospitals
MOH (General hospitals)	2013-2014	281
MOH (General hospitals)	2011-2012	268
MOH (General hospitals)	2009-2010	244
Other governmental agencies	2008	38

<http://www.moh.gov.sa/Ministry/Statistics/book/Pages/default.aspx>

Tertiary Care

Tertiary care provides care to patients suffering from chronic diseases, as this level of healthcare is designed to cope with more severe health issues. The majority of the patients are referred after the initial stage in a general hospital, as these specialised facilities employ more experienced medical experts, equipped with the best in modern medical apparatus, which in turn helps deliver the most beneficial healthcare service possible. In the KSA, as of 2008 there were upwards of 56 specialist hospitals, including two designed for cardiac and renal issues, four for eye and ear, nose and throat (ENT), four relating to chest and fevers, nine for

convalescence, leprosy and rehabilitation, 17 that were purely psychiatric and 20 for obstetrics and paediatrics (Jannadi et al., 2008).

Section Two: Healthcare system challenges

The World Health Organization (WHO, 2013) has identified a number of key risk factors in relation to, which are key healthcare problems and challenges for the Saudi Arabian government, namely the use of tobacco, lack of physical exercise and poor diet. Consequently, diseases of a chronic non-communicable nature have become more prevalent, together with an increase in coronary artery diseases, diabetes, hypertension and weight issues (Mokdad et al., 2014). In fact, both adults and children in the country have been shown to have a marked degree of physical inactivity, at a level of 43.3% (Hazzaa, 2004). Similarly, Khatib (2004) documented that obesity levels in Saudi Arabia have stood at 64% - 70%, whilst diabetes has increased in adults to a level of 23.7% (Al-Nozha et al., 2004). Invariably, various similar investigations have concluded that the negative development in disease patterns in recent decades has been caused by lifestyles lacking in exercise and damaging diets (Al-Hazzaa, 2004; Al-Nozha et al., 2004; Khatib, 2004; Sharaf, 2010; WHO, 2006a, 2010). These factors not only place a lot of financial burden on the Saudi healthcare system, but they also highlight the need for effective TQM practice to optimise returns on investment made by the Saudi government relative to its vast outlay. As a result, this thesis should contribute positively in this regard.

It is relevant at this juncture to state that promotion of health may have a role to play in relation to previous stated of health challenges, given the impact of socioeconomic development upon the status of the sector in Saudi Arabia (Mokdad et al., 2014). In addition, it is imperative to state the individual contributions that have been made, as well as the wider sociocultural values and beliefs, in the development of healthcare and health education. Nevertheless, there are challenges within healthcare and health promotion that have been highlighted within the Saudi Arabian literature, in that the connections between the challenges in healthcare and lifestyle have been highlighted, as well as behavioural traits. This has been shown, through healthcare studies within the country, to be a direct consequence of the relationship that stems from issues of behaviour and lifestyle (Aldossary et al., 2008; Farid et al., 2010; Midhet et al., 2010; WHO, 2010).

Patient satisfaction in Saudi hospitals through quality of care

Patient satisfaction has been labelled in many different ways, such as the correlation between the previously perceived expectations of a health service and resulting outcomes (Yi Sit et al., 2009). Similarly, these expectations and preconceived feelings can be a consequence of the

overall psychological state through developed prior emotions, as well as the notion that satisfaction derives from a personal, conceptualised situational evaluation (Badri et al., 2009). Therefore, reactionary satisfaction can be deemed as a demonstration of a patient's overall emotion (Badri et al., 2009; Zineldin, 2006).

It has been noted that satisfaction originates from a personal affiliation with possible intention, together with previous recommendations or advice and loyalty to past experiences (Sivadas and Baker-Prewitt, 2000). Thus, the satisfaction of a patient stems from an unwitting psychological evaluation in regards to the ensuing experience and past results (Choi et al., 2005). Invariably, the overall formulation of satisfaction is developed through an emotional response to the specific service that an individual expects and receives (Zineldin, 2006). Hence, the satisfaction of a customer in relation to product purchase is structured in precisely the same manner as patient satisfaction with healthcare. The overall satisfaction of a patient can be defined as a personal self-analysis from the service experience within the health facility (Johnson et al., 1995; Andaleeb, 1998). Indeed, it has been stated that a true evaluation of specific dimensions of healthcare can be comprehended through patient satisfaction (Naidu, 2008). Therefore, to improve overall care, it can be surmised that customer satisfaction should be examined and monitored.

In Saudi Arabia the MOH, along with other healthcare practitioners, needs input to help expand priorities for both improvements to the quantity and quality of healthcare provided for Saudi citizens and for a way to synthesise from that input which areas provide the greatest potential for improvement. This research, by gathering data/information from management, nurses and patients on elements of TQM practice and quality of care delivery, should provide beneficial information on critical success factors in this regard. Recently, the MOH has spent most of its time on increasing the number of beds for citizens (MOH, 2010). This is an understandable priority, since bed shortages and availability have been a perennial problem in Saudi Arabia (Saati, 2012). According to Walston, Al-Harbi and Al-Omar (2009), there has been a need for a way to expand MOH priorities so that more emphasis is placed on patient satisfaction in relation to their care package.

In recent years, hospitals in Saudi Arabia have been under pressure, from both the public and government sectors, to achieve Joint Commission International (JCI) accreditation (CBAHI, 2010) (see Figure 4 for an organisational chart).

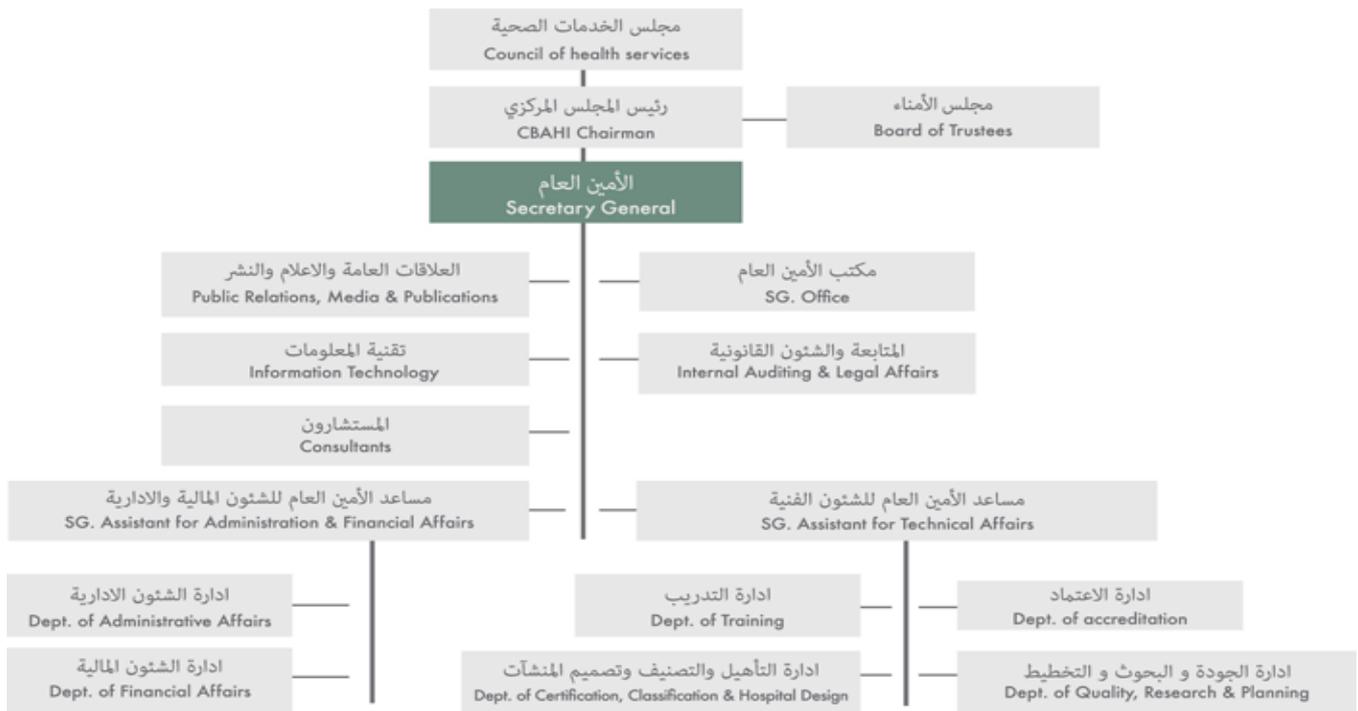


Figure 4. CBAHI organisational chart <http://www.cbahi.org/apps/en/about-cbahi/organisational-chart.aspx>

One JCI accreditation requirement is to execute patient satisfaction surveys and share these results with them (JCI, 2008). Hospitals that have sought JCI accreditation have made the necessary steps to conduct patient satisfaction surveys. This required standard, prepared by the JCI, has helped ensure that patients' opinions on the care they receive has become part of the quality indicators for improvement. However, some hospitals in Saudi Arabia have not used patient satisfaction data to improve the quality of their care, only collecting the survey data to comply with JCI requirements.

Care from Doctors

The patient-doctor relationship is a critical area for improving quality of care in hospitals. According to Roter and Hall (2006), five critical aspects that influence a doctor's contribution to quality care or patient satisfaction include: duration of care with the patient, the way a doctor explains matters to the patient, the level of information provided, overall friendliness and amenability. Some health experts argue that a patient's satisfaction level will increase when their physician has shown greater behavioural reactions within their role (Margolius and Bodenheimer, 2010). The patient-doctor encounter, especially the communication process, is now transforming in order to align with the present common standard, namely the patient-centred model (Roter and Hall, 2006), without doubt designed to improve the quality of care offered to patients. In Saudi Arabia, physicians do their best to provide good quality care for their patients, and their hospitals are enabling them to carry out that role. However, there are

some technical issues and also incentives that must be resolved, which means the MOH needs to employ policies in terms of the physician's requirements e.g. providing training and research centres for them to do the job properly.

Care in Nursing

The most important factor affecting the level of satisfaction that a patient feels comes from the connection between nursing staff and care (Boshoff and Gray, 2004), because nurses are the main interface with patients and are reflective of what the organisation stands for. The friendliness of the staff can actually be one of the most important factors in a patient's satisfaction and their likelihood to return to the hospital, although the experience is ultimately affected by other factors such as cheerfulness, kindness, care and courteousness (Gilbert et al., 1992). Overall, the dimensions of evaluated quality in nursing are ascertained through the patients' perceptions in regards to their experience within the healthcare facility (Duggirala et al., 2008b).

Nurses and the rest of the workforce in Saudi Arabia are recruited from around the world (Aboul-Enein, 2002). Not speaking Arabic – their communication medium is in English – presents real communication problems, as the native population speaks Arabic as a first language. In turn, this affects the provision of healthcare delivery, as communication is a basic and important element of TQM. Therefore, educating and recruiting a number of Saudi nurses will help with healthcare provision (Jradi et al., 2013), particularly as expatriate staff turnover is high (Almutairi et al., 2014). This also necessitates the effective implementation of TQM practices to eliminate or reduce the issues or challenges that may arise in this regard. The findings of this study alleviate this problem and go beyond simply recommending improved education and training across the board, including for the MOH, head nurses and staff nurses as well.

Hospital infrastructure

The infrastructure of a health facility, and especially hospitals, can be measured through gaining an understanding of how services are performed through the composition of basic resources, levels of internal competence and experience, knowledge, use of technology, working relationships, staff motivation and attitudes, together with how these factors are coordinated and guided through management (Zineldin, 2006). Moreover, within the infrastructure it is also possible to detect power outages, shortage of water supply and disruptions in communication systems (McFadden et al., 2006). In Saudi Arabia, management are generally required to provide adequate solutions, whilst employees must be trained effectively in potential structural change.

Potential challenges in Saudi Arabia regarding the implementation of TQM

The Saudi Arabian government has made inroads into the health sector through heavy investment, which has improved facilities throughout the nation (Ishfaq et al., 2016). However, the effective implementation of TQM has not been entirely without incident, in spite of efforts made by the authorities. Financial funds, which are allocated by the MOH, often create an obstacle, as they are continuously faced with the bureaucratic issue of funding management for facilities. Consequently, despite the significant budgetary allocation that the MOH receives every year, it is not able to relieve the total financial burden that it accrues, as services for healthcare are primarily provided by the public sector (Alkhamis et al., 2014), as the ministry supervises the majority of the facilities that provide healthcare to each citizen. Furthermore, the laws of most Gulf Co-operation Council (GCC) countries, inclusive of Saudi Arabia, state that the government is obligated to provide free healthcare, while expenditure by private hospitals is lower than expected (Alkhamis et al., 2014), and so the required investment is substantive. Therefore, Saudi Arabia has undertaken an ongoing process to improve its healthcare facilities, and substantial investment has been made to enable this programme. This extensive investment has actually paid off, resulting in the expansion and modernisation of the country's facilities. Nevertheless, it has been noted that that this expansion has created a new need for improved staffing levels and quality (Ishfaq et al., 2016) and an improved return on the level of investment.

TQM has been challenged often in the KSA, and a distinct lack of qualified health workers has created another significant area that needs improvement. Saudi Arabia has seen an increased problem in the adequate availability of Saudi native professionals, as well as a marked organisation question regarding management quality within the health sector (Safi 2016). In fact, even though the MOH has attempted actively to increase the number of native medical professionals who are experienced and qualified in quality management, labour shortages in the service have increased, which in turn has created a demand to move healthcare professionals between fields (Al-Ahmadi, 2007). Consequently, a gap in the labour market has emerged, and expatriate workers have started to be employed to bridge this gap. It is estimated that as of 2006, 78.7% of physicians and 76% of nurses who worked in the country were from foreign countries (MOH, 2006). Hence, the current situation has been deemed a major problem, as "the turnover among the medical workforce is 37% in Saudi Arabia" (Al-Ahmadi, 2007: p.177).

Quality management (QM) and its designed implementation have struggled to improve, mainly due to the marked lack of an official National Health Information System (NHIS). However,

there have been numerous attempts to create such a system, although tangibly improved results have proven to be unattainable (WHO, 2006). Consequently, despite definite improvements in areas such as telecommunications, policymakers throughout the healthcare sector are continuously deprived of the necessary data and tools that could measure quality management and its implementation, an issue which could be rectified by an organised national system (Khalifa 2014). Therefore, it has been unequivocally acknowledged that a unified information system will be implemented at the earliest possible juncture, as the NHIS will advance accuracy and reliability, which in turn will help create the noticeable implementation of quality management.

Personal inspiration and experiences

First, my interest in studying the quality of healthcare in KSA as my PhD programme is drawn from my 12 years of professional practice in both public and private hospitals. Experience essentially gives me the ability to relate to and identify critical challenges facing healthcare services delivery in KSA. Second, being a Saudi citizen who accesses healthcare services, as well having friends and relatives as patients, and being an experienced MOH administrative staff member, I am motivated to contribute to making healthcare services better. Third, having explored leadership and management in my Masters in Leadership and Management of Healthcare practice, I was able to identify service areas requiring improvement in KSA. The previous academic knowledge made it possible for me to choose TQM as a topic that could contribute significantly to providing high-quality care in Saudi governmental hospitals. From perusing academic knowledge on the subject, it was evident that the TQM model has proven successful in improving the quality of healthcare, thus inspiring my interest in exploring how best it could be managed to return maximum benefits to the KSA health sector. Lastly, it is evident from media reports, publications and some government reports that despite the Saudi MOH's TQM department working hard to improve its services, patients and communities still suffer and complain of poor hospital services.

Section summary

The healthcare system in the KSA has been discussed throughout this section of the chapter in relation to how TQM has subsequently been enhanced, structured and implemented to predict future challenges. It has been shown that the health sector as a whole developed within Saudi Arabia following the increase in economic prosperity, which has resulted in modernisation and the revitalised attraction for expatriate medical professionals looking to reside and work in the country. Nonetheless, the development of TQM within healthcare has not improved adequately, even though the MOH has actively implemented significant changes to redefine the infrastructure of the healthcare service as a whole. As such, this research work will identify,

analyse and critically evaluate the prevailing circumstances of TQM practice and healthcare provision in Saudi public hospitals with a view to providing recommendations for improvements that may inform management practice and policymaking.

Section Three: Research module

Background and rationale

The rationale behind this study is to identify the measures which establish the quality of care and enable the link between TQM implementation/practice and the provision of high-quality hospital patient care in Saudi Arabian public hospitals. This research work might assist the Saudi Arabian government in deciding on whether their vision and mission will translate into a manageable and efficient model to enhance the provision of high-quality care.

Research significance

The current investigation intends to explore the imperative significance that satisfaction holds within the Saudi healthcare service for both patients and working professionals, as quality of care provided by a compassionate workforce will affect the levels of patient consciousness in relation to personal satisfaction. Saudi medical staff members have begun to seek the acquisition of more advanced scientific and managerial services, in order to manage more professionally and scientifically. Hence, the requirement to improve service quality in healthcare, as well as maintaining patient and staff rights, has seen a marked increase in the relevance of TQM, together with the possibility of lowering hospital fees within the country. According to Dahlgard et al. (2006), TQM is defined as a company culture characterised by increased satisfaction through continuous improvements, in which all employees actively participate. This emphasises the importance of the human factor in TQM, which is a modern concept and has been proven to lower both investment and operational costs, thus helping firms effectively define budgetary constraints in order to use available resources efficiently (Seetharaman et al., 2006, Salaheldin 2009).

This research study was endeavour to emphasise the importance of assuring the satisfaction of those who benefit from and work in health services, i.e. the employees who, due to increasing levels of citizen consciousness, must satisfy rising expectations for competent and compassionate care from healthcare workers. Highly scientific and administrative facilities are demanded by the subordinates with the motive to manage the actual provision of healthcare services via actual provision of healthcare services (Parveen et al., 2016). Due to this, the importance of TQM is elevated so that the quality will be enhanced along with protecting the privileges of both patients and subordinates. The significance of declining escalating costs in

Saudi hospitals as well as the importance of TQM cannot be denied (Al-Sulimani and Sharad 1994, Safi 2016). When it comes to latest approach of administration, TQM, proved that it proposes the best ways to decline the costs of Saudi hospitals (in reference to investment and functionality) and allows them to deal with the elevating stress over their budget and therefore the resources are used more efficaciously (Zhao 2000, Mi Dahlgaard-Park et al., 2006, Abanomy and Alshitri 2015).

Research Gap

The research gap that has been identified the current misalignment between governmental healthcare TQM strategy formulation and policy and its implementation by management in public hospitals, as well as at the point of contact with patients at the personnel level between nurses and other healthcare professionals (OHPs). The researcher suggests that gaps exist at various levels in the Saudi healthcare system, which leads to a less than optimal quality of care for patients. In addition, it is unclear what are the potential issues and challenges – strategic, operational and/or at the customer interface – which may explain the shortcomings in quality or performance outcomes. Notably, decisions made at the top of the hierarchy, namely at governmental level, filter through the system to operational or managerial levels within the secondary healthcare setting. These in turn filter down to the nurses or OHPs, who are the key facilitators required to fulfil patient-centred care initiatives. Hence, the gaps could be argued as involving these three stakeholders and their unequivocal stance in relation to TQM. Therefore, this research was establishing if there is any conclusive evidence from the multi-relational viewpoints that may exist between government through to nurses. Thus, the researcher was explore the existing healthcare system and TQM practice with a view to augmenting the overall quality of care within these institutions. (See Figure 5) for a proposed research framework for this study.

Research Problem

The key problem identified in the conceptual/research framework below is that there exist some unexplained gaps between three levels in the Saudi healthcare system, i.e. between the governmental/MOH level, the hospital managerial level and the personnel level of direct interface with patients. These elements represent the three main stakeholders in the Saudi healthcare system.

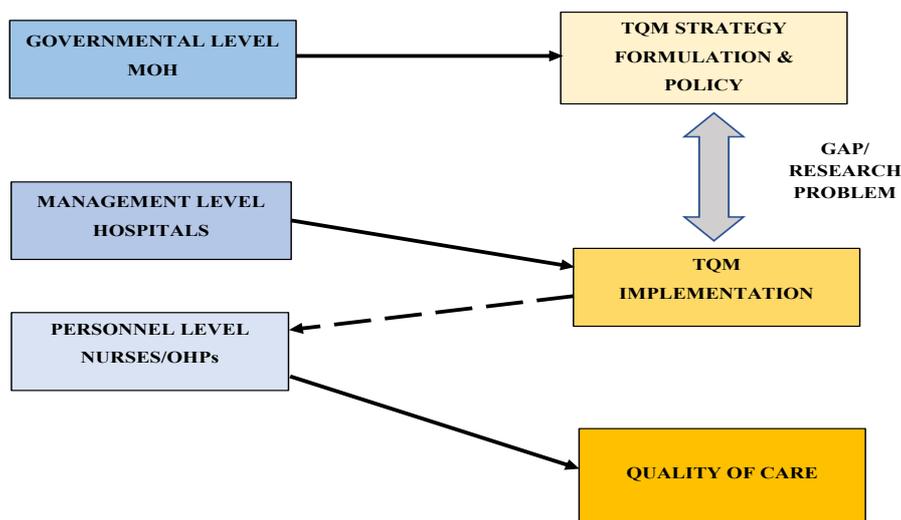


Figure 5. Research framework

Through this framework, the research’s purpose was to explore the critical success factors and points of failure that influence quality delivery from a patient and service provider perspective. The research work was conducted in two stages, using multistage purposeful sampling. Stage one involved semi-structured interviews, and stage two made the use of questionnaires.

Aim and objectives

The target behind this research was to find out the current status of TQM methodology in healthcare in Saudi Arabia hospitals in order to enhance competence, throughput along with the entire quality of care endowment on the basis of provider and patient views. The following objectives pursued below:

1. To explore the concept of TQM in Saudi Arabian public hospitals and the extent to which it is understood and implemented in practice.
2. To investigate context-specific issues that affect the effective implementation of TQM practices in Saudi Arabian public hospitals.
3. To identify the critical success factors needed for high-quality healthcare provision in Saudi Arabian public hospitals from the perspectives of providers (management and nurses) and patients.
4. To study the critical link between TQM practice and the provision of high-quality care to consumers in Saudi Arabian public hospitals, and to make recommendations for effective implementation.
5. To determine the implications of the findings (in 1, 2, 3, 4 above) for current theory about the nature of the relationship between TQM and quality of healthcare provision in the Saudi and other country contexts.

Research focus

The current study was to establish current understanding of management and nurses in relation to the concepts of TQM and their perception of its degree of implementation in Saudi Arabian public hospitals, which was include: perceived weaknesses, effective implementation, correlation between the care provider and the patient and recommendations for TQM.

The study location

This study was undertaken in Riyadh, the capital of Saudi Arabia, involving the MOH's main building and two of the largest, most important and most famous medical hospitals in Saudi Arabia, namely King Fahad Medical City (KFMC) (428 beds) and King Abdul-Aziz University Hospital (KAUH) (752 beds). With respect to these medical institutions, may assist other government hospitals by leveraging the knowledge garnered to subsequently improve TQM practice. Consequently, this would enhance productivity and efficiency, as well as improve the quality of care provided to patients and ultimately improve patient satisfaction and overall satisfaction.

Overview of the thesis

The introduction regarding the content of each chapter is been presented in this section, which is as follows:

Chapter 1: This chapter is divided into three sections. Section one is about the context of the Kingdom of Saudi Arabia, while section two is designed to explore the healthcare system in Saudi Arabia, including topics such patient satisfaction and the care provided by doctors and nurses. Section three is a research model that includes the aim and objectives and the research design.

Chapter 2: This chapter revolves around the introduction of the literature on TQM. It discusses the development of the TQM model via its establishment phases (since 1970, by the acceptance of TQM in 1980, up till now) through the evaluation of the ways by which it has been embraced in the hospitals and healthcare facilities in voluminous nations; for instance, the United Kingdom, the USA, Qatar, UAE, Oman, Jordan, Saudi Arabia and Japan. Besides, this chapter addresses Six Sigma, as a numerical method designed for cost declination, TQM CSFs in global, Arab countries, Middle East and Saudi Arabia so as to have knowledge of the features that stimulate the execution of TQM. Also, a comparison is carried out amid the quality leaders; for instance, Deming, Juran and Crosby, and their viewpoint and elucidations.

Chapter 3: In this literature review, this chapter presents topics on the healthcare system in Saudi Arabia, TQM design and solutions. The different factors which affect the implementation

of TQM in Saudi Arabia are also examined, as well as a review on the general literature in relation to nurses, patients and TQM managers' perspectives regarding the application of TQM.

Chapter 4: It elucidates the pattern and approaches utilized in this research. Formerly, the theoretical framework has been overviewed. It provides the study place and process involved in recruiting the sample. The explanation regarding the nature of the theoretical framework at the top of the research variables, study stages, approaches of data assemblages and techniques of data evaluation is carried out.

Chapter 5: Chapter five presents the results and the data analysis in relation to the interviews conducted with hospital management and nurses, as well as the survey research conducted with patients.

Chapter 6: A critical conversation about the outcomes in the frame of reference of the present literature is presented in this chapter. Let us notice, what will be further added to this research.

Chapter 7: This chapter depicts the inference, suggestions along with summing up the chief discoveries from the research related to the worth of care. It stressed upon the insinuations of these discoveries from the three viewpoints of the governmental level, administrative level and functioning level (patients and nurses), along with the healthcare approaches and areas for future study. It also talks about the restrictions on the research on the top of the implications grounded in the discoveries of the research.

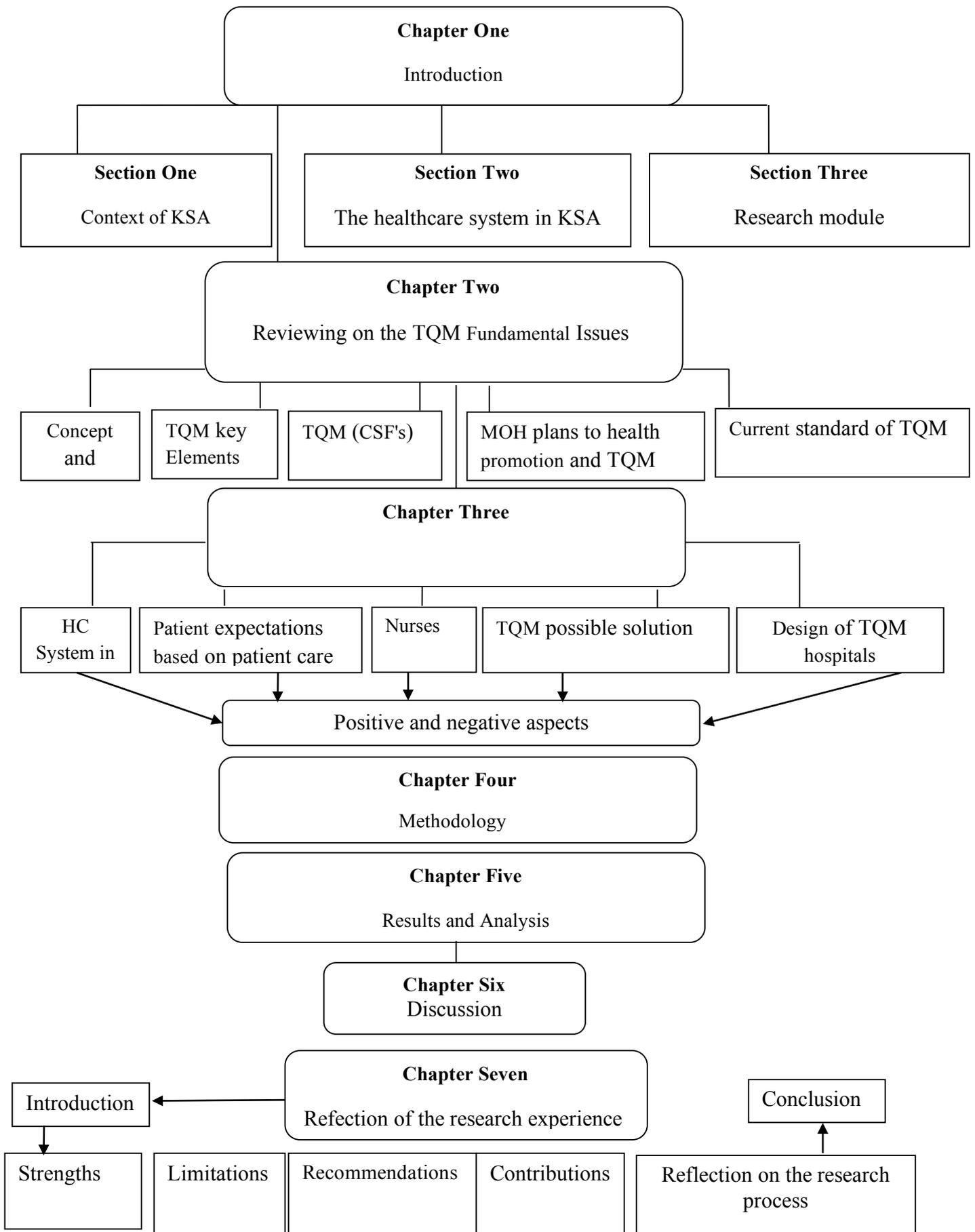


Figure 6. Outline of the thesis

Chapter Summary

This chapter presented the introduction of the thesis structure and the approaches and ways that were utilized for accomplishing the aim of the research (Figure 6).

In this study, the current circumstances of TQM system within the healthcare development in Saudi hospitals will be discovered, to identify the quality requirements needed to implement high-quality care based on providers and patients' perspectives. This study was to design a model to achieve the research objectives, with the intention of contributing positively to the process of implementing TQM in Saudi government hospitals. This will help in the effective implementation of the Saudi Arabian government's vision to establish a high-quality healthcare system for the benefit of its population and the institutions which always have high expectations of good healthcare quality provision in government hospitals. The next chapter presents the literature relevant to TQM.

CHAPTER TWO: TQM REVIEW AND BACKGROUND

Chapter Introduction

The motive of this chapter is to detect the critical success factors (CSFs) of TQM execution in the healthcare department. Hence, with the intention to know the purpose reason for the success or the failure of implementation within global, Middle Eastern and Saudi Arabian healthcare systems, it will be necessary to study TQM. Although, there are multifarious successful executions of TQM happened; however, the failure cases are no more or less.

TQM aims at creating possibilities for an organisation to provide the highest standard of products and services (Kurupparachchi and Perera, 2010). To achieve higher competitiveness and performance, quality management has become vital as a strategic tool (Khan, 2011). Moreover, a beneficial link through quality improvement to the performance of an organisation has been stipulated (Abdullah et al., 2012). The overall final quality for both customers and employees is a driving force behind TQM (Fields and Roman, 2010); indeed, TQM enhances the general performance of the organisation, together with customer satisfaction (Chang et al., 2010), instilled throughout organisations to remove waste and reduce non-productive activities (Yusuf et al., 2007).

TQM has implications for satisfaction beyond the patient or final consumer, since a prerequisite to customer satisfaction is often the satisfaction of internal customers, i.e. the providers of the service. The issue of improving TQM practice is of particular importance in the Saudi context, since it has been noted that overall job satisfaction has become an area of strong focus for human resource professionals, due meeting the demand for qualified healthcare professionals such as physicians, nurses and pharmacists (Parveen et al., 2016). As suggested by Heskett and Schlesinger (1994), regarding the “service-profit chain,” employee satisfaction has a direct impact on firm performance and the overall satisfaction of customers, though the Saudi Arabian government has tried to create a better healthcare system through TQM and significant investment to counter the lack of native medical professionals and qualified health workers and excessive employee turnover (Albejaidi, 2010). However, effective TQM practice normally results in delighted customers, both internally and externally, by meeting or exceeding their expectations on a continuous basis (Talib 2013).

It is necessary to implement successful TQM within an organisation through the accomplishment of various protocols (Alharbi and Yusoff, 2012; Kumar and Sharma, 2015; Pramuka and Adawiyah, 2012; Yue et al., 2011; Talib, 2013; Thamizhmanii and Hasan, 2010; Chong et al., 2010; Shaari, 2010). These include communication, competitive objectives,

customer centrality, improved management of information, incentives and rewards, employee involvement, successful commitment from management, man-management, perpetual development, process management, the just-in-time (JIT) approach; the empowerment of employees, quality expenses as well as co-operative-teamwork, vital training, strategic management plans, quality assurance and quality product design.

Definitions

According to the Oxford Dictionary (2009), the definition of quality is “the amount of brilliance of something in comparison to other similar things.” Unfortunately, the concept of quality is often confusing, as it is based on individual criteria that stem from the role of sequential activities that are devised through personal perspectives. A product or service may change as the characteristics to meet the client’s expectations may vary from alternative perspectives (Feigenbaum, 1990). Nonetheless, quality has a similar foundation within each sector, as it has an affinity with the product and service characteristics and customer satisfaction within the business environment. The zero defect philosophy is the basis of the quality administration, which is structured through advanced comprehension of the cost of quality defects (Crosby, 1979). By continually evaluating them, mistakes can be prevented through assessing flaws, thus increasing the prevalence of high-quality products.

TQM developed into a beneficial method of competitiveness during the 1980s as its popularity increased as a new approach to management. It has been stated “The foundation of TQM is the persistent accomplishment of client satisfaction by involving management and employee commitment, training, constant enhancement and great supplier relations”. (Sashkin and Kaiser, 1991: p.25). Moreover, it is often labelled as a form of continuous improvement that functions through all individuals and group organisations (Kanji and Asher, 1996). These authors have provided different definitions about TQM, mainly revolving around the continuous improvement process, while others also mention something about customers, the business and organisation, improving effectiveness, the flexibility of quality system and competitiveness. However, the definition posited by Deming (1986) considers TQM as a management culture to be embraced by an organisation which practices these beliefs perpetually, the present study therefore adopts Deming’s definition, with a view to implanting TQM successfully within the healthcare system in Saudi Arabia (Appendix 3).

The concept and philosophy of TQM

TQM has developed into an imperative part of the healthcare industry, as well as the service sector, due to advanced enhancements in markets and the economy. These advancements are

defined by phenomena such as market deregulation, globalisation, technology advances and acute competition. TQM focuses on empowering the full remit of employees by creating participation opportunities alongside contributing and developing a feeling of joint-commitment. Essentially, the approach requires everyone within the organisation to work towards a single goal of making continuous improvements to solution focused, the aim of which is quality improvements, quality of care that attempts for attain satisfaction for the patients (Talib 2013). TQM is a vital prerequisite to enhancing service quality and more efficient resource utilisation within an organisation (Ahmad et al., 2015; Ishfaq, 2016).

Furthermore, TQM is directed at ensuring that an organisation continuously attempts to exceed customer satisfaction, which is applied throughout the organisation and is developed as a long-term commitment (Talib et al., 2011e). Consequently, time planning is essential to the decisive implementation and adoption of TQM, especially in the service sector (Fotopoulos and Psomos, 2009). The adoption of a TQM approach involves three fundamental elements: commitment, involvement and continuous improvement, as clearly articulated by Talib (2013, 2). In order for TQM to be successfully implemented throughout an organisation, it requires the full commitment and support of senior management and organisational leadership and is central to organisational success (González and Guillen 2002, Seetharaman et al., 2006; Weng et al., 2015). The corporation possesses the tendency to minimize the gap amid the clients' outlooks and views of the job by the execution of quality management technique. (Parasuraman et al., 1988).

Innovators and their Chief Provisions and Philosophy to Quality

When it comes to quality, there are three groups of providers from the 1940's in collaboration with the Americans dispatching the message of quality to the Japanese, who subsequently came up with new ideas which were conveyed to Western suppliers who adapted by the accomplishment of the Japanese industry. In the 1920's, the work of Walter Shewhart in Statistical Process Control (SPC) at the Bell Laboratories in the United States raised the theoretical roots of TQM. The strategy of Shewhart was to establish a practice so as to evaluate the variables in construction. Nevertheless, he makes up the Plan-Do-Check-Act cycle that has a motive to enhance work procedures via scientific approaches (Evans and Lindsay, 2001).

Moreover, for attaining consistent enhancement and problem solving, the PDCA cycle was introduced as a structured approach, which is called Deming/Shewhart cycle' (Appendix 4). Deming played a vital role in generalising the PDCA cycle so that it will be compatible with any type of production activity and created it as a mandatory part of quality enhancement. According to Deming (1986), this cycle is a replica for enhancement and a process for

evaluating exclusive reasons of fluctuation. However, most of the Shewhart's work was about the numerical control of the procedures and the basis for quality is developed by his control chart (Evans and Lindsay, 2001).

Edward Deming's Philosophy

Edward Deming, known as a great American intellect and statistician, is commonly referred to as initiating the modern quality evolution. In 1951, he travelled to Japan, where he attempted to bolster the nation's economy. Deming has defined the term 'quality' as being measured in terms of conformance, design, planning and service. Moreover, he has stated that quality should go beyond meeting customer expectation. Through his first years of work, manufacturing was demonstrated to incorporate both non-manufacturing and human variations, which would reflect his own background in statistics. Deming theorised 14 points of management to assist in comprehending how management could be transformed, which would apply simultaneously to both small and large organisations, as well as in the sectors of manufacturing (Flood, 1995: p.15) (Appendix 6).

The Deming model of quality improvement activity theorises that a certain sequence of implementation phases shall ensure perpetual improvement through determining the final results of the process. Firstly, facts are correlated to formulate a suitable plan for quality improvement through an evaluation of the present situation. Secondly, the plan is formulated into action, which leads to the third phase of comparing the specification of the planned techniques to signify just how they can rectify the identified problems. Thirdly, successful methods are standardised in order to develop techniques that are implemented into the present and future action.

TQM failures

TQM has been utilised by various organisations in order to enhance performance, which on occasion has reaped marked rewards but at other times has resulted in noticeable failures (Kumar and Sharma, 2015; Mosadegrad, 2014). There have generally been as many TQM failures as prominent successes. It has to be understood that TQM results are not easy to obtain and certainly require patience, as it is commonly acknowledged that the longer an organisation utilises TQM, the more successful it will be ultimately. Thus, it has been documented that in order to gain tangible benefits from TQM, it is necessary to allow two or three years for the results to filter through (Talib, 2013). It has been suggested that quality has a strong influence on corporate economics, a positive impact that leads ultimately to improved business results (Conti, 2012).

TQM and the Saudi healthcare industry

The MOH is the major provider and financier of healthcare and services, and its duty is to offer general and specialised services via healthcare organisations (Safi, 2016). The MOH manages most hospitals via health directories spread out across 20 regions (AlYami and Watson, 2014), though some are also managed by the Ministry of the Interior. The Ministry of Defence and Aviation controls military hospitals (MOH, 2002; Mufti, 2000). In 2009, Saudi Arabia possess 56 tertiary care hospitals, 244 general hospitals designed exclusively for secondary care and primary healthcare centres are around 2,037 (Albejadi, 2010) (Appendix 1 and 2). The system is under a lot of stress despite the Saudi Arabia's healthcare accomplishments due to the absence of sufficient investment. In light of the WHO statistics (WHO, 2013, Saudi Arabia invested 4% of its GDP on health in 2010 and other high income nations spent lesser than 12.4% average in the group.

The stress on the healthcare system will be build up in the upcoming years. The cause behind this is the ongoing demographic shift in Saudi Arabia. The United Nations forecast (UN, 2013) depicts that by the end of 2025, the nation's population will turn into 35.5 m with an increment of about 28.4m now. The other is the shift in disease configurations i.e. underway, from infectious to non-infectious diseases. Saudi Arabia is adopting the private sector in collaboration with the Gulf Cooperation Council (GCC) and around the world., and as a key step in this regard it has introduced private health coverage. The success of healthcare insurance and the continued trend towards privatisation depend on the quality of service provision according to consumers' expectations (Ishfaq et al., 2016), and so it must be supported by a collective TQM practice that permeates all levels of the national healthcare system. In the GCC block, Saudi Arabia possesses the highest level of private sector contribution, at about 34%; this is inadequate for the 38% average in high-income nations (WHO, 2013).

To increase quality in healthcare, certification and training must be improved in order to keep healthcare professionals up to date with the latest technologies and approaches, which must include cultural sensitivities (Arab News, 2013). During the evolution of TQM, there has been increased emphasis on the people factor and human values, as individuals within organisations have to produce the desired outcomes to bring about TQM success. As such, it is leadership's responsibility to motivate people/employees towards desirable actions and behaviours and enhance their level of quality consciousness (Guillén and González 2001). The full potential of TQM can only be achieved by training and educating staff to create TQM awareness, interest, desire and action (Salaheldin 2009), all of which will then establish a TQM culture which has an affirmative influence on subordinate morale as well as work attitudes (Dose 1997).

Consequently, the features of TQM will most probably affect the employee job gratification (Boon Ooi et al., 2007).

If we go back in time, Saudi Arabia was highly concern about the quality of healthcare services due the alteration in the healthcare state of affairs because of the government strategies. When it comes to patients' choice of hospital, the significance of quality cannot be denied (Alaloola and Albedaiwi 2008, Al-Borie and Sheikh Damanhour 2013, Alghamdi 2014). In these variations, the quality of the healthcare services must be enhancing. Besides, the hospitals have been encouraged to execute TQM approaches due to the varying market and accreditation stresses (Albejaidi 2010), in order to lower costs and improve care.

Still, there are challenges in the Saudi healthcare system; for example, recent research has shown that job satisfaction among healthcare workers is low, as the majority of nurses in public health sector organisations are unhappy with work life, management and supervision, a lack of developmental opportunities and poor working conditions (Almalki et al., 2012). Furthermore, Ishfaq et al. (2016) recorded only moderate levels of customer satisfaction on various service quality dimensions, though they found reliability to be a major issue relative to other dimensions, as there was a negative gap indicating dissatisfaction on this dimension.

TQM in the global context

Kathawala and Nanda (1989) were the first to analyse the concept of quality management in the global context. Nevertheless, how global quality management has been deemed as necessary, through its components and definitions, initially appeared in a special issue of the *Journal of Decision Sciences* in regards to global quality management (1995, Vol. 26, P.5). Moreover, conceptualised global quality management (GQM) should be acquired systematically as the next step in the formulation of TQM, as a plan through the integration of products and processes that will endeavour to achieve better organisational functionality and lead to greater customer acceptance (Romle et al., 2016). The notion of GQM functions as a motivating factor behind the worldwide development in quality management as well as an evaluation standard in quality management practices between nations (Husin et al., 2015).

When TQM is implemented in different countries, consideration must be given to the national culture, in order to minimise the chances of conflict that may affect productivity and quality (Babatunde and Low 2015). In addition, as firms cross borders, the understanding and implementation of TQM becomes more complex. Hence, organisations improve in relation to international competition and develop global competitiveness through a focus on quality (Gallear et al., 2012). Thus, the concept of GQM functions as a foundation in the potential

achievement of international competitiveness (Goetsch and Davis, 2014). Likewise, it is defined as a base for business performance and international language in the global context (Oakland, 2014). It has been strongly suggested that the future of quality management in the 21st century will be affected by four main factors: (1) increasing global competition, (2) increasing customer expectations, (3) opposing economic pressures and (4) new approaches to management (Goetsch and Davis, 2014).

Middle Eastern quality

Developed countries throughout the world have a better rate of quality management implementation than Middle Eastern nations (Abanumy and Alshitri, 2015, Mosadeghrad, 2013, Albejaidi, 2010). Indeed, the majority of countries in the region are not aware of how quality management can positively affect productivity as well as international competitiveness and efficiency. Nevertheless, awareness and understanding of quality management in the region has begun to increase (Dedhia, 2001). Two separate trends are now being considered to be the main reasons in the enhancement of quality management understanding in the Middle East, namely the fluctuation of petroleum and gas prices on the world stage and globalisation (Al-Khalifa and Aspinwall, 2000), which has also been directed through the public, private and manufacturing sectors (Goetsch and Davis, 2014).

Overall, quality management in developing countries, as with the Middle East, has received very limited attention, so there is little empirical research to analyse that may highlight the region (Al-Khalifa and Aspinwall, 2000). It was not until 1990 that any formal quality management movement was proposed, when the original Quality Conference of Persian Gulf International was held in Bahrain (Dedhia, 2001). Subsequently, new studies, from about 1994 onward, began to develop in regards to quality management (Al-Suleimani and Sharad (1994), Aly (1996) and Zairi (1996). These scholars attempted to evaluate and reduce the challenges that organisations in the Middle East face, which has enhanced the level of national empirical research. Initially, Al-Khalifa and Aspinwall (2000) conducted a study that formulated a national approach in Qatar to comprehend the degree of TQM, which was proven to be incredibly low within organisations.

A full understanding of TQM in the Middle East has been developed by various other studies in recent times; for instance, Chapman and Al-Khawaldeh (2002) evaluated the relationship between TQM in Jordan's industrial sector, whereby the productivity of employees in Jordanian companies was found to be distinctly better in organisations that had structured TQM into their process. Likewise, in Yemen, research was carried out that aimed to address the

challenges in implementing quality management in the country and its understanding (Al-Zamany et al., 2002). The researchers found that state support, together with advanced TQM understanding and alterations in organisational culture, were the distinct issues that could prove detrimental to the implementation of TQM in Yemen. Furthermore, in Saudi Arabia, research was undertaken to evaluate the vital aspects of TQM in companies, noting that it had become imperative to teach quality management (Curry and Kadasah, 2002; Goestch and Davis, 2014).

TQM in Saudi Arabia

In Saudi Arabia, the major force behind quality improvement has derived from the demand for services in health as a result of renewed pressure from the public and escalating costs (Al-Ahmadi and Roland 2005; Safi, 2016). According to 40% of Saudi patients in primary care, the issues that they generally face in relation to healthcare include handwritten referrals, no integrated healthcare IT network and the language barrier between patients and workers (Al-Ahmadi and Roland, 2005; Khalifa, 2014). Indeed, 80% of doctors and 73% of nurses in 2006 were foreign nationals (National Competitiveness Centre, 2008) who could not communicate in Arabic (Bozionelos, 2009; Busman and Brown, 2003). Even by 2016, the nation was only 70% self-sufficient despite recent improvements in investment levels for education and training (National Competitiveness Centre, 2016).

The current study aims at highlighting what detrimental restrictions exist in Saudi public hospitals which appear to obstruct the development and provision of high-quality healthcare, and at establishing the nature of existing TQM practice to ensure quality of care for patients. This research will explore the extent to which TQM practice has been implemented within state/public hospitals with a view to identifying the current structure, implementation and challenges that may exist.

Global TQM key elements for successful implementation

The programmes of TQM and their potential implementation were evaluated by various researchers around the turn of the 21st Century from contrasting and individual perspectives (Harari, 1993; Ramberg, 1994; Eskildson, 1994; Hill and Wilkinson, 1995; Powell, 1995; Bennett and Kerr, 1996; Hermel, 1997; Ross, 1999; Wiklund et al., 2000; Evan and Lindsay, 2001; Curry and Kadasah, 2002; McAdam and Jackson, 2002; Curry and Magad, 2003; Yang, 2004). In fact, these scholars ascertained that many factors should be considered by organisations as indicative of achieving the successful implementation of TQM.

According to Munir and Elhuni (2014), elements of key for TQM implementation drawn from quality experts and organisations with quality awards include leadership, employees

satisfaction, leadership and management of internal stakeholders, quality improvement, emphasis on teamwork, communication for quality, resource management, supplier management, system and process management, policy and strategy. However, Fryer et al.'s (2007) study on determining quality of care factors for the improvement of continuous in regard with projects for the public sector suggests that some factors are fundamental for the healthcare organisation and yet which not fit with industries (government services). When examining success/barriers to TQM implementation in Iranian healthcare, Ali (2005) reported that, the management of processes in related with the workers they had a positive and highest impact on successful application of TQM, whilst resource and supplier management had the lowest effect.

Management commitment and leadership

Leadership is described as a multifaceted process of identifying a goal or target, influencing other people to act and providing support and motivation to achieve mutually negotiated goals (Jooste, 2004). It can be perceived as the ability to instil confidence within a subordinate and create support with the intention to achieve set targets (Sheety 1994; Hackett and Spurgeon 1998). Furthermore, leadership is a significant feature in organisations (public sector), because it entails the ability of top management to enact a practice through a long-term vision that adheres to customer satisfaction (Zydzianaite, 2012). Customer focus is core to the common targets for TQM (Saylor, 1996 and Aune, 1998). In addition, leadership manifests itself in employee job satisfaction through the style of management. The most appropriate leadership style depends on contextual factors such as organisational culture and employees' organisational maturity (Rad and Hossein, 2006). Empirical evidence shows that leadership is linked with employee satisfaction and customer satisfaction (internal and external customer satisfaction) (Heskett and Schlesinger 1994), thereby making it a critical factor for TQM.

A Canadian study on quality and safety (QS) in healthcare, focusing on healthcare leaders, argues that using quality to optimise care requires strong and committed leaders who ensure the strategic direction of an organisation, encourage a quality culture and are ready to provide the tools teams need for their work (White et al., 2016). Since leadership has a role in employee commitment and TQM, Al-Ghamdi et al. (2016) postulate that there is significant employee commitment to improve TQM in KSA's public sector. Ugnoro and Obeng's (2000) empirical study on top management leadership and TQM claims that top management leadership and commitment to an organisation's TQM goals create an organisational climate that emphasises total quality and customer satisfaction. It is also clear in most of the literature that TQM must start at the top or top managers must lead the way by accepting, without doubt, the applicability

of a quality policy. According to Oakland (2011), effective TQM only occurs when managers adopt a strategic overview of quality that establishes itself around preventing and not detecting problems.

Teamwork

Teamwork is vital for the achievement of organisational objectives, as groups are a necessary part of the effort to implement TQM (Coyle-Shapiro, 2013). Invariably, it is believed a team or group will attain greater results than a single individual (Zairi et al., 2005, Stough et al., 2000) and thus create better and more rapid solutions to any presented problem. Moreover, teamwork will generally provide greater improvements that deliver better structures and operations. Overall, in order to enhance the processes through which TQM is actioned, teamwork is important (Al-Sinan 2004, Dale et al., 2016; Millar 1999, Wiley 1997, Zhang et al., 2000 and Rao et al., 1996).

Training and education

Training is imperative for a programme of quality management to become successful (Al-Mahmoud et al., 2012; Jradi et al., 2013; Talib, 2013). Additionally, it is believed that in understanding whether TQM has become successful, it is vital to receive training and education (Ishikawa, 1972). Training programmes need to comprehend TQM philosophies (Salaheldin 2009). Moreover, employees are required to receive systematic training in quality management, in order to create a greater level of worker empowerment (Ahire et al., 1996; Holden, 2007).

Communication

Communication is an intrinsic part of the process of TQM (Kanji et al., 1993). Good communication, together with productive feedback, is imperative to the success of an organisation, as both aspects convey concepts to management to improve outcomes (Sanders, 1994). Communication is an underlying factor of other CSFs, including leadership and management commitment, employee empowerment, teamwork and others. Kumar et al.'s (2011) study on TQM success factors described effective communication as not being important, unless it is integrated with other TQM success factors. Hanson et al.'s (2003) study on postulated that communication without restraint is essential when considering the role of information and communication. Another empirical study also reports a positive relationship between communication and TQM training (Palo and Padhi, 2003), whilst a public health sector study in the USA reports communication failure as the cause of teamwork failure and the root cause of two-thirds of sentinel events reported between 1995 and 2005 (O'Leary et al., 2011). Communication, therefore, is seen as an integrative CSF for implementing TQM.

Customer focus

Customer focus is an essential area for quality improvement and is therefore very significant in implementing TQM. Fundamentally, when quality management and customer relationships are closely managed, customers' needs are satisfied more comprehensively (Powel, 1995; Saylor 1996). TQM is a customer-focused system, and the organisation needs to understand customers' needs translate into of a service that meets their demands, which healthcare providers do for patients (customers) (Chan, 2001). Quality experts stress that TQM itself is customer-oriented and emphasises elements of customer focus that include customer loyalty and customer satisfaction (Mehra and Ranganathan, 2008). Performance in Malaysia highlights a good, positive relationship between TQM and customer focus, noting that customer focus uniquely contributes to TQM success (Agus, 2007). Customer focus is therefore essential for establishing customer value (including quality) designed to meet and exceed customers' needs and expectations, and thus it is significant in implementing TQM.

Employee involvement and participation

A dedicated and able workforce is required to participate in activities necessary to develop quality and achieve a successful TQM environment or culture (Goetsch and Davis, 2014; Coyle-Shapiro, 2013). Employees across all levels of an organisational hierarchy must be given responsibility to develop communication levels effectively, as this will improve quality throughout a company. Hence, employees must be considered by supervisors and managers as possessing legitimate and valid ideas, and considered as internal customers who become satisfied when external customers enjoy full satisfaction (Mathe and Slevitch, 2013; Prakash and Smith 2004, Sayeh et al., 2005, Yang 2004, Rotenberry and Moberg, 2007; Ross 1999, Ramirez and Loney 1993, Evans and Lindsay 2001, Crosby 1979, European Quality Award, Canadian Quality award and Lawler et al., 1992). Employee involvement in the design and implementation of the TQM process is important, as there is a greater chance of a successful quality initiative and it may have a positive impact on employee job satisfaction (Boon Ooi et al., 2007). Such a participative culture has positive outcomes and can be implemented voluntarily through quality circles and quality improvement teams (Yusuf et al., 2007).

Culture

The culture within an organisation has been referred to through the interactions that occur between all employees, and between all levels, within an organisation, together with the relationships that this promotes (Jeffries et al., 1996; Lewis, 1996; 1997; Hofstede, 2001; Rome et al., 2016). Likewise, culture has been stated as guidance for employees on how they invariably helps implement procedures within an organisation (Schein, 2004; Valmohammadi

and Roshanzamir, 2015). Culture does enhance TQM within an organisation, because through co-operation and openness all the employees are provided with a level of responsibility to satisfy the organisation's customers. This in turn advances individual involvement in the implementation of business strategies and plans. Hence, management must behave correctly and responsibly, so that employees become motivated to act in the same manner (Oakland, 2000).

TQM critical success factors (CSFs) in Arabic countries and Saudi Arabia

A lot of research has been conducted in relation to implementation of TQM in Middle Eastern nations (i.e. Bahrain, Dubai, Kuwait, Palestine, Saudi Arabia, and the UAE) by measuring potential CSFs (Abanumy and Alshitri, 2015; Baidoun, 2003; Kumar and Sharma, 2015; Mosadeghrad, 2014). There are some studies of quality of care and TQM how effected with healthcare sector in Palestine, where principle goal was to identify CSFs for effective TQM implementation comprehend may be formulated these organisations (Yossef, 2006).

Consequently, it was shown that for the successful implementation of TQM, 19 quality factors existed which were structured for three distinct criticality of the levels. Out for these, nearly half that noted to be structured through the early stages of the implementation process. More recently, Kumar and Sharma (2015) conducted a case analysis of a series of real-life companies to identify the critical success and failure factors for TQM implementation and why these were similar to earlier studies. The authors concluded that a large percentage, namely some 60-80% initiatives of TQM, either not successes completely or has not any meaningful impact on business performance. This is thus an area requiring further research.

Firstly, senior executives should take responsibility for the development of management systems, while quality management structures should guide the direction of the organisation. Secondly, there should be clear, distinguishable signs of, together with quality of care systems being formally documented. Thirdly, there should be a continuous process for addressing problems and improvement, which can be established through perpetual communication of the organisation's objectives and goals. Additionally, a comprehensive policy development is required that deploys effective means to acquire goals, alongside a detailed evaluation of customer requirements. Furthermore, all employees need to grasp the values and quality incentives of the organisation for which they work.

An empirical study into the implementation of TQM in Kuwait established 19 CFSs that are perceived as necessary to the development of successful TQM (AI-Nofal, 2004). Once again, these CFSs were signalled out and duly deemed most critical: the commitment of higher

management, observed top management in quality, the satisfaction of customers, a transparent company objective, quality structure, implementation of lower level decision-making, communication improvement between management and employees, quality organising, and the commitment and enthusiasm of employees.

In addition, in Saudi Arabia, research was undertaken to understand the deployment and relationship of TQM in the country, and from this study, 21 CFSs which critical identified as to overall TQM implementation, again classified into three levels of criticality (Al-Omair, 2002) from which seven CFSs emerged as being critical: the responsibility of senior executives and their vision in relation to customer satisfaction, the organisation's processes defined by feedback and customer requirements, presenting clear policy and objectives, a commitment to training the workforce, continuous improvement and the development of fact-based structures.

Additional research from Saudi Arabia, Qatar, Kuwait and the UAE is included in Table 3.

Six CFSs have been shown to be essential to the process of achieving successful TQM, following detailed perspectives from extensive regarding quality of care.

Background to the MOH's plans to enhance health promotion and TQM

A vital role is provided by nurses in implementing TQM, and as a result, a new strategy has been created by the Saudi Arabian MOH (MOH, 2012a) which delivers the promotion of health and health education for nurses and functions alongside Saudi Arabian culture specifically.

Nurses are expected to implement the new strategic plan, as stated by the MOH, as they are seen as most healthcare provider active within Saudi Arabian healthcare (MOH, 2012a), which means that they are perfectly situated to fulfil this role (Pelusi, 2007). Healthcare is often dependent on nurses promoting healthcare and health dynamics (Whitehead, 2008), whilst education in health is generally considered to be integral to the discipline of nursing (Choi et al., 2010; Demir et al., 2009; Lamiani and Furey, 2009; Park, 2005).

The education about the health is the main concern and demands exclusive attention as it has been observed that the rareness of sufficient edification and teaching is still a chief factor in the levels of knowledge and skills that nurses manage in health / patient care (Casey, 2007a; Cutilli, 2010; Farahani et al., 2011; Lamiani and Furey, 2009; Pelusi, 2007). Additionally, practical awareness is required by nurses in relation to health education challenges and the issues that arise through the working environment (Su et al., 2008). Nonetheless, TQM is enacted correctly when nurses have been educated and trained sufficiently. Hence, the strategic plan of the MOH makes specific recommendations in relation to investing the correct amount of time and resources into the development of professional nurses' education and training (MOH, 2012a).

This will enable nurses to become sensitive and competent in a diverse cultural setting, which will be advanced by the implementation of educational models based within the Saudi Arabian healthcare system, in an attempt to rectify cultural barriers that are present in Saudi communities.

Current standard of TQM in Saudi government hospitals

TQM is still in its infancy in the Saudi Arabian health system, and although it has become a prerequisite in public hospitals. Therefore, the next step in moving forward is to train nurses effectively in TQM so they can implement it correctly; additionally, there should be proper facilities for TQM in hospitals. However, this cannot be achieved without understanding and support at governmental level (Albejaidi, 2010).

Overall design of TQM in Saudi Hospitals

Gorji and Farooque (2011), using ANOVAs, demonstrated that TQM has fantastic potential to improve the overall performance of organisations, with hospitals in countries like India and Iran needing to improve quality and resources. The findings showed a significant difference between groups, and for both Iran and India, the results suggested that more was required in the pursuit of higher quality in healthcare services. Moreover, Talib et al. (2011), through a strategy of analysing papers written between 1995 and 2009, presented a TQM study to identify how to achieve successful implementation in healthcare institutions. Altogether, 15 research papers were selected for the investigation, with eight supporting TQM practices, and with training and education identified as the most beneficial TQM practices. It was concluded through this article that more constructive TQM can always be achieved through in-depth discussions to advance the possibilities of success.

Al-Borie and Sheikh Damanhour (2011) looked at the both public and private hospitals in Saudi Arabia and identified public and five private hospitals was chosen, with data collection via questionnaires using the SERVQUAL scale, equating to a 74.9% response rate. An SPSS was used for data analysis. The results highlighted that many TQM factors influenced the satisfaction of inpatients and the design of Saudi hospitals. Another investigation presented TQM developments through the analysis of quality and patient satisfaction models evaluating patients' conditions, pre- and post-discharge (Badri et al., 2008). The authors tried to test in public hospital patients from the United Arab Emirates against three quality service measurements. In addition to this study, Bani-Hani and Al-Omari (2012) examined the influence of quality improvement factors (QIF) in 30 private hospitals in Jordan, in order to highlight operational performance. Management commitment and human resources also

emerged as two distinct variables that affect internal quality results and management commitment.

Patient journey into the secondary care environment

A brief discussion on a typical ‘patient journey’ is presented below, as this is the area of primary focus for this study. A graphical illustration and discussion ensues.

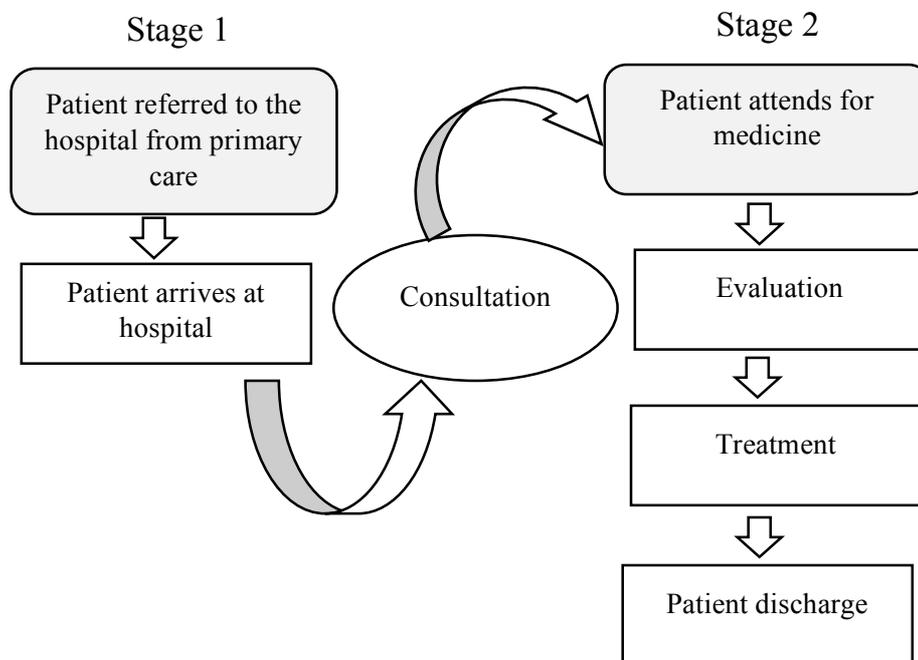


Figure 8. Patient journey through the secondary care environment

Stage one – referral process: This essentially occurs in two parts, because within Saudi Arabia a two-tier system operates in the secondary care setting. A patient can be referred to the hospital by either a GP or a non-teaching hospital. The GP referral process means that the patient is referred to a non-teaching hospital, and if the non-teaching hospital cannot cater for the patient’s needs, then the patient is referred to the teaching hospital. Only members of the academic fraternity are treated directly in a teaching hospital. This means that academics who teach in a university affiliated to the teaching hospital are referred directly to the teaching hospital only.

Stage two – immediate need: This occurs when a patient needs to access secondary care facilities as quickly as possible, due to an acute critical care requirement. Normally the patient is admitted directly to A & E and is then triaged and referred dependent on the severity of the need.

Stage three – outpatient: This occurs when a patient is referred back into the secondary healthcare system because the consultant has requested a periodic review based on the condition and need.

After these three tiered access points, the next stage is consultation, whereby the appropriate medical practitioner or AHP can deal with the patient. At the point of consultation, the patient will require investigation diagnostics; otherwise, the patient will be directed straight onto the treatment pathway.

Quality points

The quality points to consider are that the system runs as a push-demand concept. This means that the patient is pushed through the system based on their stage of care. However, the key issues are that if TQM is to succeed within the Saudi healthcare system, it is important to evaluate critically care delivery improvements. Figure 9 shows the inter-relationship between care planning and care delivery improvement.

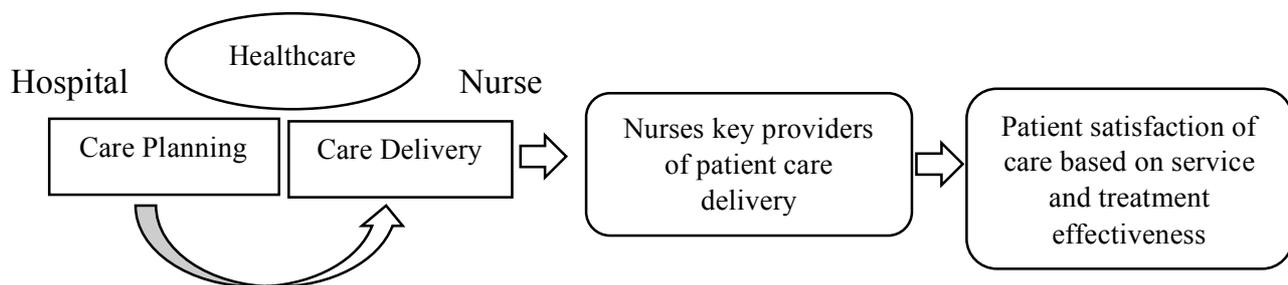


Figure 9. The quality points in patient journey

Care delivery improvement has to be a two-way communication process that involves the patient’s perspective. This thesis has been engineered to include the patient’s viewpoint in terms of TQM as well the caregivers (nurses) on the wards.

Summary

This chapter has provided valuable information and an overview on TQM and its implementation in the Saudi healthcare system. It presents the different definitions of TM and outlines the approach in both the global and the Saudi healthcare industry. It also provides successful and failed examples of TQM implementation. The strategy and plans set up by the Saudi MOH in promoting TQM have also been explained. The next chapter undertakes a literature review and provides more detailed considerations of TQM and the research context.

CHAPTER THREE: LITERATURE REVIEW

Introduction

This study was aim to exploring the existing state of TQM practice in healthcare in Saudi Arabian hospitals with a view to improving productivity and efficiency and overall quality of care based on provider and patient perspectives. This chapter draws on the available evidence on quality of care, to demonstrate the need for further research. This part of the thesis provides a comprehensive literature review, consisting of main three parts. Part one description of the relevant literature that helped for the conceptual framework design. Moreover, the process, and the search strategy together with the sources and criteria for selection, are detailed. Section two appraises the selected studies to highlight nurses' perceptions of quality of care and factors that may influence care improvement. Following this, the main themes of the investigation are ascertained and discussed in detail in section three. Evidence is presented in an evaluation of the comparative differences between TQM in a global context against an approach designed specifically within Saudi Arabia. Furthermore, this section will analyse how TQM in Saudi Arabia is affected by environmental settings and establish how potential challenges and opportunities are created for TQM. The review is designed to be presented in four main stages: search strategy and process, criteria for searching, selecting and including studies for the review, an appraisal of the selected studies, and a description of studies in the review and the creation of main themes from the withdrawn evidence.

The review considers cross-cultural studies to help provide more robust evidence and compare quality management across cultures and countries in the world. This is also expected to provide more solid ground for a comprehensive literature review and, consequently, more focused roadmap for future research.

The review progresses through the following four main stages:

- Search strategy
- Search results (included and excluded studies)
- Appraisal of included studies
- Key findings and themes

Search strategy and process

A systematic search strategy was developed and applied to examine all relevant databases and search engines covering many issues of patient safety, such as organisational culture regarding quality and patient safety, healthcare organisations, World Health Organization (WHO), the UK's National Health Service (NHS) and search engines such as Google Scholar and other Internet resources.

These databases included CINAHL, PubMed, Medline, British Nursing Index, ProQuest Dissertation and Thesis UK and Ireland, *Medline Ovid Nursing Journal*, ERIC and PsychInfo. The databases were searched for studies published in the English language up to 2016. Additionally, the University of Salford catalogue for materials (books, theses and publications only available in printed form) were also reviewed and obtained directly from the library desk, where available. The search used specific key terms to select the related studies directly: 'TQM development', 'TQM success history', 'failure of TQM', 'TQM in Saudi Arabian hospitals', 'TQM in global healthcare', 'TQM and patients' and 'TQM and service providers'. An appropriate thesaurus associated with specific database Boolean operators (AND, OR, but not NOT) were utilised to make sure that a wider range of keywords was used in the search.

The current search strategy was formulated by seven main themed principles. Firstly, implementation of TQM is analysed to see how it could improve the way it is implemented within Saudi healthcare (Almalki, Fitzgerald and Clark, 2011; AlYami and Watson, 2014; Safi, 2016). This is necessary because it is imperative that the factors surrounding patients preferring private hospitals are understood. Secondly, the impact of TQM and healthcare system in Saudi Arabia is examined, as the current research attempts to analyse and evaluate how TQM and patient care can ultimately be improved through TQM (Walston et al., 2008). This also involves an overview of how hospital management affects patient care in the Saudi Arabian healthcare system, Arabic countries and the Middle East as a whole. Thirdly, challenges and solutions to TQM implementation are analysed, as what is anticipated by the patient is vital to developing constructive TQM (Sila and Ebrahimpour, 2010). Patient expectations based on patient care are looked at next, i.e. what are they looking for? Is TQM implemented in those hospitals where the patient experience of care is good? Are there any other key factors such as human contributions? Fourthly, driving forces of TQM are perceived to be an important component in fully comprehending the function of TQM, i.e. how nurses and health workers function every day of their professional life (Al-Qahtani, 1999). For instance, are there any driving factors that affect implementation by those who implement practices, and what are the difficulties or barriers they face? Fifthly, a cultural perspective on total quality is also vital, as it is through

this stage that the overall structure for patient behaviour and education levels derives in the organisational management of healthcare in Saudi Arabia with a view to understanding factors that could hinder implementation. Sixthly, the performance of nurses could also play an important role in quality of care delivery. Finally, outcomes for quality management implementation, as the final process in the TQM framework, are analysed.

Table 2 Databases used for the literature review

Databases used	Focus
Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO	Finds different items in the English language that Medline often fails to locate. This also includes literature from allied health professions, which could be potentially relevant to the current review. However, US bias is often found.
Medical Literature Analysis and Retrieval System Online (MEDLINE) via Ovid	This international database is wide-ranging and is able to identify the majority of different health research, all presented in English. Again, US bias is often found.
British Nursing Index, ProQuest Nursing and Allied Health Science	A British database that manages to redress certain issues that arise through US bias found in larger databases.
Cochrane Central Register of Controlled Trials (CENTRAL)	For RCTs, this is the most important site.
American Psychology Association database (PsycINFO).	Focuses particularly on psychological issues, although it does carry US bias.
Google Scholar	Provides web pages instead of journal articles. Yet, it is beneficial in providing searches that are wide-ranging, as it provides the possibility to identify different studies' references that other searches often omit, thereby permitting searches on a variety of identified studies.

The search for relevant literature was conducted using various databases in the medical, nursing and social sciences.

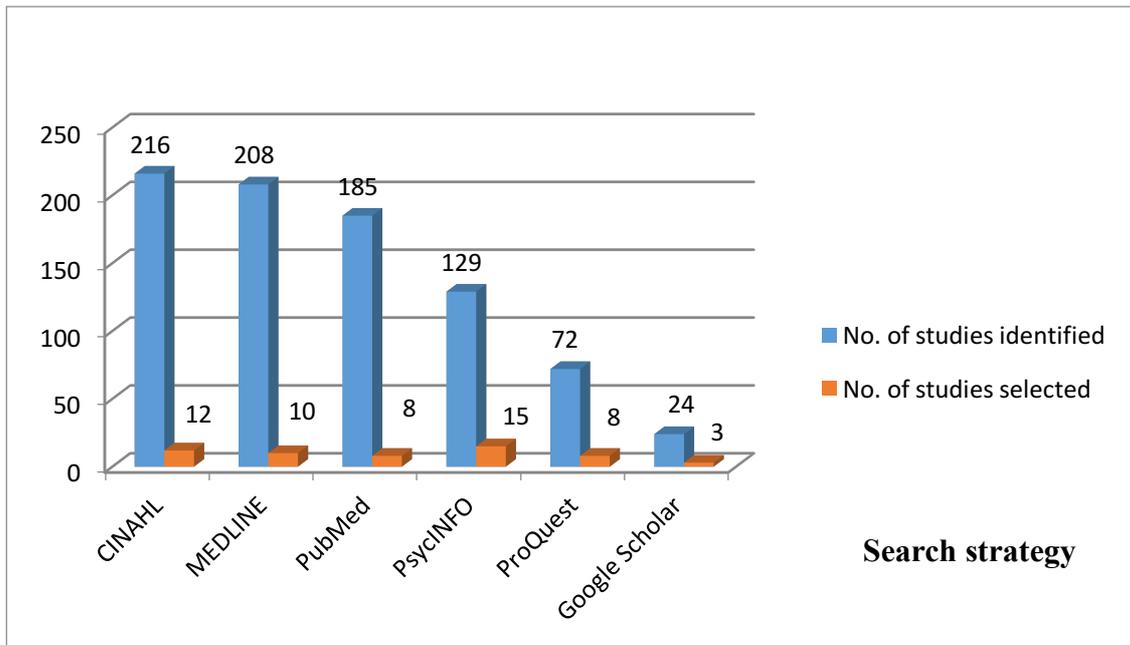


Figure 10. Search process for the literature review

During the search, various terms and keywords were used, including ‘TQM’, ‘hospital management’, ‘TQM in hospitals’ and ‘implementation of TQM in healthcare’. Moreover, the search. Quotation marks (“ ”), alternative words and synonyms were also used to search for relevant literature. The search inclusions and exclusion criteria are summarised below:

Table 3 Keywords (first search)

The main keywords used for TQM and quality improvement
TQM, Hospital Management, Patient Care, Healthcare System, Middle East, Nurse and Patient Expectations

According to the inclusion criteria (Table 3.2), the search returned 82,664 papers, 7,952 of which were initially considered relevant to the study’s aim and represented both the healthcare system in Saudi Arabia (308) and quality improvements in the same setting (7,644). All papers were assessed for eligibility based on the title and abstract. Full text was obtained for unclear studies, giving a total of 1,060. Of these, 33 studies concentrated on either quality improvement studies or healthcare.

Table 4 Initial inclusion and exclusion criteria

	Inclusion criterion	Exclusion criterion
Article for (second search)	Articles reflecting the HC system, quality improvement, patient care and TQM across the globe and in Saudi Arabia	Articles describe TQM principles.
Language	English.	Other languages and translations.
Period	2006 - 2016 (unless relevant from before).	Before 2006, with the exception of some important studies.
Studies	Use a quantitative, qualitative or mixed method approach as a research method.	Exclude policies, essays, review papers, clinical reports and assignment papers.

First of all, three different perceptions prevail in relation to TQM in healthcare: hospital nurses, hospital management and the patients who receive or potentially receive care (Wardhani et al., 2009). Hence, these three alternative viewpoints can be categorised, summarised and evaluated and linked with the relevant keywords. Connected keywords are formulated through an understanding of healthcare as well as Saudi culture, both of which are linked to decipher fully TQM in the country. Secondly, articles relating to perceptions of TQM and the overall implementation of the practice, particularly as culture is frequently not included in health-related articles (Shoqirat, 2009). The researcher utilised TQM keywords required to understand healthcare practice and improvement within management and organisations in general, in order to limit the search results. Consequently, the researcher conducted different searches within the process of a literature search, through the most beneficial inclusion and exclusion criteria. The searches helped define the objectives and structured themes of the investigation, to demonstrate whether the TQM methodology is being implemented, why patients choose private hospitals, patient and staff perspectives, TQM with care and what factors hinder TQM development.

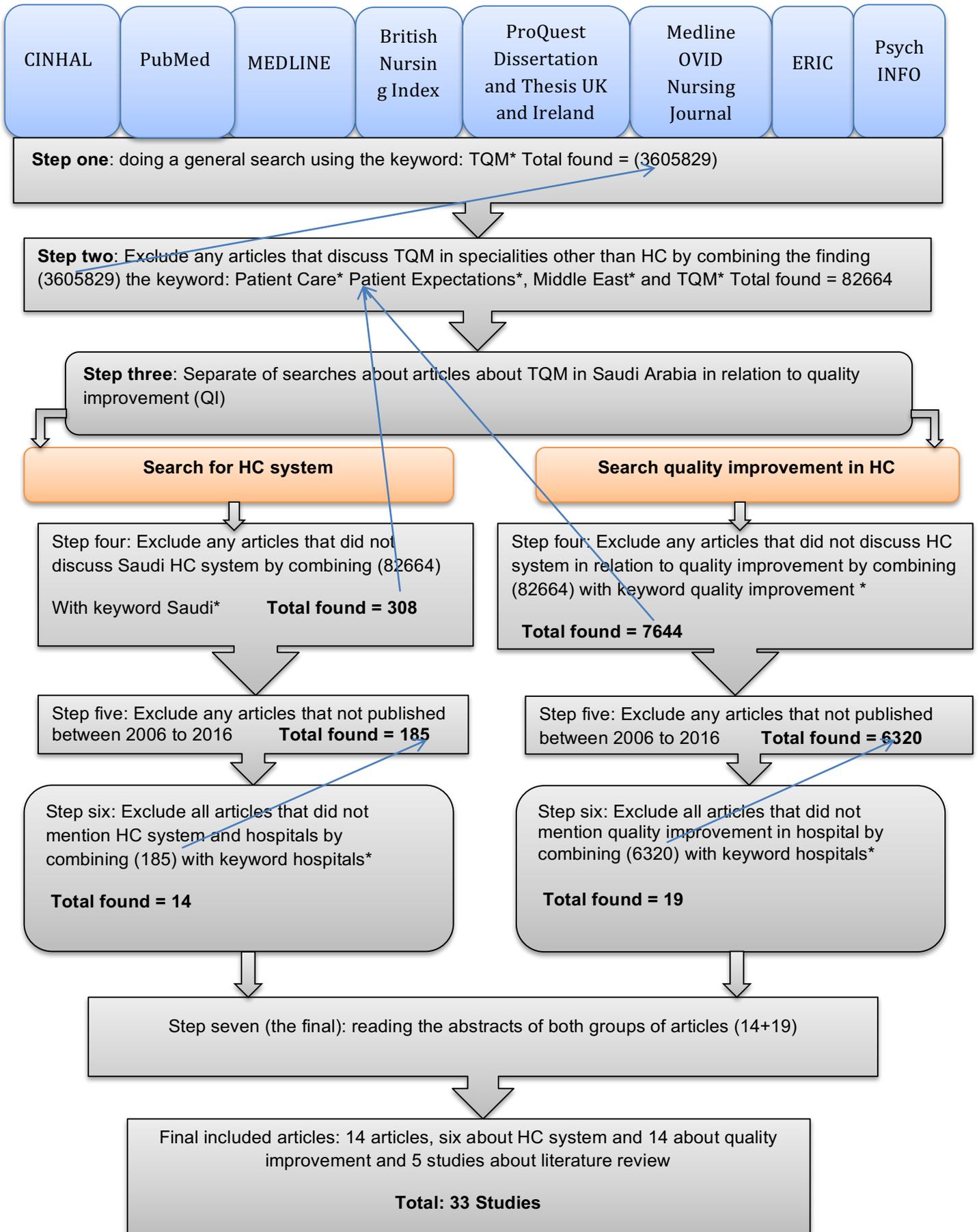


Figure 11. Search process for the literature review

Findings

Various structured findings were ascertained from the analysed studies in relation to TQM, which detailed how it is imperative in relation to quality and patient satisfaction. Moreover, these findings demonstrated the challenges, potential negative impacts and factors that duly affect the implementation of TQM. See the table of findings below for extensive details.

Table 5 Literature review findings

No	Literature review findings
1	Nurses' views on quality and patient satisfaction were linked to MD-RN collaboration, and job satisfaction from views of the work environment
2	TQM is important for improving patient safety by decreasing errors and providing optimal services, though this requires management support
3	Concerns regarding the language and cultural competency of migrant nurses in providing health services more effectively, thus recommending implementation of TQM to standardise support and ensure effective practice in nursing routines
4	Culturally congruent patient and family education is crucial in the health sector for dealing with cross-cultural situations
5	Patients' negative experiences with nursing and technical care, care behaviour and nurse competency will be necessary to develop TQM for patient-centred healthcare
6	Hospitals focus on creating physical, mental and social environments that are good for patients and staff alike, with managers concentrating on promoting health and wellbeing
7	Patient care is affected by understanding beliefs, especially in Muslim Saudi Arabia and other Muslim countries
8	The expectations and attitudes of nurses are affected by TQM, while management commitment, attitudes and behaviour are also related to TQM
9	Team members' interactions and challenges associated with documentation that affect quality and safety of patients
10	Training practices are essential for an employee's job performance
11	Demonstrates that TQM requires a quality-oriented organisational culture

The search produced several articles. Then, after combining and narrowing down the search, 30 articles were chosen and used for the appraisal. In total, 33 articles were eligible to document the relevant themes, using the most pertinent information in these articles. See the ensuing

tables: Table 5 for the literature review findings, appendix 7 for a summary of the included studies and a summary of the included reviews.

Appraisal and quality of the review including studies

In order to comprehend and evaluate TQM, as well as identify the critical success factors that are required in the implementation of quality care provision, the literature has to be analysed and critiqued. This systematic approach to the assessment of quality was adopted in order to appraise all the studies that are measured against the same criteria and which help analyse the overall quality. Through the framework designed by the Healthcare Practice Research and Development Unit (HCPRDU), each study was subject to a critical appraisal that helped analyse quality within a defined framework (Long et al., 2002a and 2002b). This developed within four specific areas: the aims of the study, the size of the sample, methodology and results.

Description of studies in the review

The review returned 33 studies, from 2006 up to September 2016. The quality of available literature is discussed in relation to four key areas within the included studies: study aims, participants, methods and main theme evidence.

Study aims

The aims and scope of the studies differed in the review, with evaluating the implementation of TQM programmes, creating a safety culture in health organisations and patient satisfaction being the central focus points. Eleven studies focused on the development, implementation, evaluation and success of TQM programmes in healthcare settings (Mosadegh Rad 2006; Withanachchi et al., 2007; Awuor 2013; Terzic-Supic 2015; Herman 2011; Al-Ahmadi 2009; Gherbal.N. and Shibani 2012; Kaariaine and Kyngas 2010; Alolayyan et al., 2011; Al-zubi and Judeh 2011; and Alaraki 2014). The studies also discussed how healthcare has improved for patients from different ethnic groups (Herman 2011), the influence of cultural values on the success of TQM implementation (Kaariaine and Kyngas, 2010) and the influence of TQM application on operational flexibility (Alolayyan et al., 2011).

Five studies aimed at assessing and investigating the safety culture in health organisations, as well as the factors that may influence the climate of patient safety in hospitals, such as accreditation and language (Floor, R. 2015; El-Jardali et al., 2014; Al Awa et al., 2011; Walston et al., 2010; and Al-Ahmadi 2009). Four studies investigated patient trust and satisfaction with service delivery and assessment as an indicator of healthcare quality (Tang 2012; Al Borie et al., 2013; Atallah et al., 2013; and Douglas 2005). These studies discussed how patients perceived the healthcare environment, facilities and designs to appraise future healthcare provision (Douglas, 2005). The rest of the studies discussed a variety of topics that might be

associated in some way with the quality of services and care. For example, seven of these studies discussed issues related to nurses' perceptions of their roles and practices, and factors, barriers and challenges that may oppose these practices (Glenn et al., 2014; Koivunen et al., 2011; Al Ahmadi H 2009; Hussein 2014; Wahabi et al., 2011; Al Homayan et al., 2013; and Emine K 2010). Other studies talked about consumers' perspectives on issues like health insurance (Ishfaq et al., 2016), nurses' innovation (Weng et al., 2015), technical human challenges Khalifa (2014), cultural competence and multicultural nursing (Al-Mahmoud et al., 2012).

Participants

Participants in the reviewed studies differed, with managers and nurses being the most common cohorts involved in the studies. Eight studies recruited their participants from nursing managers at different levels: administrative, executive and operative (Awuor 2013; Mosadegh 2006; Glenn et al., 2014; Koivunen et al., 2011; Walston et al. 2010; Al-Ahmadi H 2009; Weng et al., 2015; Almutairi 2014). Seven studies recruited their participants from different departments and specialisations (multidisciplinary) (Terzic-Supic 2015; Kaariaine and Kyngas 2010; Al-Ahmadi 2009; Alolayyan et al., 2011; Hussein 2014; Wahabi et al., 2011; Emine Kale, 2010). For example, Terzic-Supic (2015) involved a head nurse, a deputy manager, a chief of support services and a director of the general hospital, while Wahabi et al. (2011) recruited physiotherapists, pharmacists, dentists, dieticians and technicians. Six studies included patients from different units and at different stages of disease (Herman, 2011; Tang, 2012; Douglas and Douglas, 2006; Al-Borie et al., 2013; Floor Rosse, 2015; and El Bcheraoui et al., 2015).

Another six studies included patients only, especially those which aimed to study patient satisfaction with delivered services, patient safety culture and quality of care indicators (Tang, 2012; Al Awa et al., 2011; Douglas and Douglas 2006; El-Jardali et al., 2014; Al-Borie et al., 2013; Floor Rosse 2015). Some patients were included with other health professionals in single studies (Floor Rosse, 2015). In addition to differences in the type of participants in these studies, sample sizes also differed (ranging from 10 to 10,735), with only one of the studies mentioning that considered sample size calculation (Al-Homayan et al., 2013). With different sample sizes, it is difficult to match with the type of sample and consequently draw a consistent conclusion. Moreover, the size of some included one setting whilst others included two or more. For example, the Serbian study by Terzic-Supic (2015) approached participants in 20 general hospitals, while the Saudi study by Hussein (2014) included four units in one single hospital. Stratified randomisation was considered by multiplying the studies (Awuor, 2013; Mosadegh Rad, 2006; Tang, 2012; Al-Ahmadi H 2009; Al-Homayan et al., 2013;

Methods

While quantitative and qualitative studies have to obtain ethical approval from a recognised ethical committee, such as a university or hospital, only thirteen studies mentioned that they had obtained this approval (Ahmadi 2009; Alolayyan et al., 2011; Glenn et al. 2014; Koivunen et al., 2011; Mosadegh Rad 2006; Tang 2012; Terzic-Supic 2015; Walston et al., 2010; Al-Borie et al., 2013; Hussein 2014; and Weng et al., 2015).

Studies in the review were conducted using a variety of methods and research strategies. The majority used quantitative methods to achieve their aims and objectives (Terzic-Supic, 2015; Herman, 2011; Mosadegh Rad, 2006; Kaariaine and Kyngas, 2010; Tang, 2012; Al-Ahmadi 2009; Walston et al., 2010; Al-Ahmadi H. 2009; Alolayyan et al., 2011; Al Awa et al., 2011; Atallah et al., 2013; Hussein 2014; El-Jardali et al., 2014; Wahabi et al., 2011; Ishfaq et al., 2016; El Bcheraoui et al., 2015; Khalifa 2014; Al-Mahmoud et al., 2012; Alaraki 2014; Al-Borie et al., 2013; Al-Homayan et al., 2013; and Emine Kale 2010). The rest of the studies differed in their methods, with four using mixed methods (Awuor 2013; Gherbal N. and Shibani 2012; Douglas and Douglas, 2006; Floor Rosse, 2015), two using case study methods (Withanachchi et al., 2007; Al-zubi and Judeh, 2011) and three using qualitative methods (Glenn et al., 2014; Koivunen et al., 2011; Almutairi, 2014).

Quantitative methods

Quantitative approaches differed in the means and instruments employed to obtain data from the participants, and some of the details about these instruments were not provided in a selection of the studies (Al-Borie 2013 and Walston 2010). The instruments in these studies focused mainly on five main themes:

- Total quality management and its implementation.
- Patients' satisfaction with the service provided.
- Nurse training and practice.
- The use of a health information system.
- Patient safety climate.

Three specific tools measured the implementation of TQM in healthcare institutions worldwide (Al-Olayyan 2011; Al-Araki 2014), while others discussed TQM indicators such as patient satisfaction with the care provided (Tang. 2012; Atallah 2013; and Al-Borie 2013), level of job performance, quality implementation and the development of quality guidelines (Al-Homayan et al. 2013; Al-Mahmoud et al. 2012; Al-Awa et al. 2011) and cultural diversity and the need for translators (Emine K 2010; Herman 2011;and Al-Ahmadi H 2009).

The two instruments measuring TQM and their influence on factors such as operational flexibility and hospital performance, which were pertinent to this study, focused on issues that were associated with TQM such as employee management, leadership, continuous improvement, information analysis, process management and supplier management.

Qualitative approaches

Three studies focused mainly on either TQM or factors that might influence its implementation in healthcare organisations (Glenn et al. 2014; Koivunen et al., 2011; Almutairi 2014). However, they did differ in the way they obtained participants' views. For example, Glenn et al. (2014) used hermeneutic phenomenological semi-structured interviews with 13 delivery nurses about their caring practice. In addition, Koivunen et al. (2011) interviewed five focus groups and five nurses and used inductive content data analysis with training nurses about their expectations of their role as educators as a systematic way of improving care in psychiatric healthcare inpatients. A study by Al-Mutain (2014) used face-to-face semi-structured interviews with 24 nurses to gain their views on the cultural competence of nurses working in Saudi Arabia who originated from different countries and cultures.

Mixed methods approaches

Four studies used a mixed method design to obtain data from their subjects (Awuor 2013; Gherbal N and Shibani, 2012; Douglas and Douglas, 2006; Floor Rosse, 2015). The one most pertinent to the current study was the study by Awuor (2013) in which the researcher used structured and semi-structured questionnaires. In the study, interviews included questions on topics such as TQM, quality management systems and performance management. In Gherbal and Shibani (2012) and Douglas (2006), quantitative and qualitative methods and integrated data covered topics such as indicators of quality, including management, communication, training and development, employee involvement and recognition, friendly hospital environment and culture. Furthermore, the last example above, by Floor (2015), distributed questionnaires to 1,339 patients in 30 wards with inadequate Dutch proficiency and interviewed 17 of them after discharge.

Review studies approach analysis

Five studies used a literature review approach as overall (Awuor 2013; Talib 2011 and Alkhenizan 2011; Albejaidi 2010; Wardhani 2015). The reviewed studies emphasised TQM system use, practices and management in public or private hospitals and healthcare quality accreditation programmes. The studies highlighted key themes critical to this research, including TQM, quality management systems, performance management, accreditation and clinical outcomes, Saudi's modernisation of its healthcare system, strategic management role

in public health, success factors for TQM implementation and supportive and effective TQM practices. The study methods in the selected literature were in the form of literature reviews and systematic reviews. The studies present an in-depth analysis drawn from a variety of findings and different research methods.

Main retrieved themes from the review

Four major themes were extracted from the review of the current evidence, each representing the key findings and evidence about TQM and associated concepts. Seven themes were retrieved to represent the review:

- Implementation of TQM
- The impact of TQM
- Challenges and solutions to TQM implementation
- Driving forces of TQM
- Cultural perspective on total quality
- Performance of nurses in Saudi Arabia
- Outcomes of quality management implementation

Implementation of TQM

TQM has the potential to improve the overall performance of organisations, with hospitals in countries such as India and Iran needing to improve quality and resources (Gorji and Farooque, 2011). The findings showed a significant difference between groups, and for the cases of both Iran and India, the results suggested that more was required in the pursuit of higher quality in healthcare services. In this regard, it was first crucial to make sure that TQM exists before its implementation.

In Kenya, Awuor's (2013) study assessed the existence of TQM systems in selected hospitals. Critical factors for its existence and implementation were examined, including performance measurement of the effectiveness of these quality systems. The study concluded that TQM was part of what was needed to run a good organisation in the health sector and required making strategic decisions, albeit on its own it was not enough. The study claimed that TQM could materialise as a possible solution to improving competence and the effectiveness of healthcare provision and support the growth of public health hospitals in developing countries (Awuor, 2013). Though the study takes a business perspective in examining quality factors, it also provides a valuable contribution regarding how aspects of management in public hospitals can influence quality healthcare provision to patients.

An earlier study by Abdulrahman (2012) sampled 75 administrative staff and examined the preparedness of organisations in relation to selected critical success factors. The study provided a hierarchical structure and transactional leadership style as well as a conceptual framework to enhance quality management in Saudi organisations. The latter involved a questionnaire for 75 staff followed by interviews with administrative staff and found that the prerequisites for TQM were not aligned. The researcher in this study defined these pre-requisites to include a control mechanism, such as “inspection and testing,” and personal factors such as educational achievement, communication, complaints handling and leadership. Similarly, in a Libyan study by Gherbal and Shibani (2012), reliable dimensions were also identified for implementing TQM successfully, namely organisation management, better communication, to improve quality, training and development, employee involvement and recognition and culture. A year later, Rad (2013) provided details in regards to various critical factors that are essential if TQM is to become successfully implemented and which will lead to an increase in productivity and employee and customer satisfaction through a TQM culture. TQM increased top managers’ commitment to quality and customer satisfaction in 96.4% of healthcare settings, while in 67.2% of organisations it advanced the knowledge of employees along with innovation. Meanwhile, TQM brought about continuous quality improvements in all of the organisations. Additionally, TQM advanced technology, research and development in 96% of cases, and it resulted in the documentation and investigation of complaints in 94.5% of instances. Furthermore, all the healthcare organisations showed that TQM results in better relations between employees and managers. However, in Saudi Arabia, there is still major negative feedback regarding TQM in hospitals, as found in the study by Atallah (2013); however, this situation varied in its severity across the country. Al-Borie and Sheikh Damanhour (2011) showed that the cause of this variability was of particular interest to this doctoral researcher, at the very least because it relates to the health sector.

The impact of TQM

The impact of TQM on functioning flexibility in Jordanian hospitals was studied by Alolayyan et al. (2011). In light of these discoveries, TQM is significantly associated with operational flexibility. It was recommended by Judeh and Al-Zubi (2011) that with the motive to elevate the hospital’s administrative performance and efficiency, the TQM should be implemented. Rad (2006) studied the influence of the administrative culture over the efficacious execution of TQM. According to his research, the TQM highly influence the on administration, concentration on clients and leadership and supervision and the least impact on the contributors, performance, crucial planning and material assets.

Improved patient safety

In Saudi Arabia, the nursing population originates from multiple cultural backgrounds. Walston et al. (2008) conducted a study to investigate the factors which affect hospital patients' safety. The survey was conducted across four types of Saudi hospital, and the findings indicated that management support, a proper reporting system and adequate resources are all influential in this regard. Alasmari and Douglas's (2012) study in the country established that registered nurses leave work in critical care because of issues with job satisfaction, including perceived workload, pay, professional support and parental status.

The patient safety culture was evaluated by the Al-Ahmadi (2010) and he deduced that the significance of leadership cannot be denied as it plays a vital role in the efficiency of patient safety inventiveness in Saudi Arabia. A research was carried out by the writer to find out the factors affecting the performance of 1,834 hospital nurses in the Riyadh region (Al-Ahmadi 2009). The self-reporting performance actions were taken by him so as to demonstrate the variances in employee demographics, job gratification and administrative commitments, which may affect the performance, occur or not. According to the discoveries of this specific research, there is an affirmative correlation amid the job performance and the administrative commitment, job gratification and private and professional variables. In recent times, the evaluation of dimensions and predictors of safety culture along with the comparison with others present universally is carried out El-Jardali et al. (2014). There is about 2,572 hospital staff (nurses, doctors, PTs, etc.), who were approached by the research and it was detected that the greatest affirmative scores were related to the administrative learning and constant development (79.6%) along with teamwork within divisions (78.5%).

High patient satisfaction

It has been argued that TQM depends upon patients' behaviour and the extent of their involvement in the process of delivery (Alasmari, and Douglas, 2012). Research evidence suggests that there is a need for firms to encourage patient involvement through patients being able to state their own opinions on the quality of care and the design of TQM (Al-Borie et al., 2013). This leads to an increased level of fulfilment and satisfaction. For example, Avsar and Kasikci (2011) reported that quality patient education was found to improve the outlook of patients who were more satisfied and more willing to live with illness and take some responsibility for their own health outcomes.

In line with Atallah et al. (2013), the patient gratification cannot be accomplished without the quality of care in an area like Saudi Arabia. He also came to know that in this regard, above

85% of patients were happy; whereas, below 50% of them were not gratified with few features of nursing care; for instance, language, information giving and attentiveness. There was one more research by Al-Borie et al. (2013), which analyzed the sufferers' gratification in alignment with service quality in Saudi Arabian hospitals, via SERVQUAL examination. The motive behind this is to assess the hospital performance through patient contentment along with service endowment that is a chief strategy and planning concern. The study concluded that gender, occupation and income were statistically significant in this regard. This tool was also used by Ishfaq et al. (2016) on 400 consumers regarding their satisfaction of dimensions of SERVQUAL tool. Of the five SERVQUAL dimensions measured (responsiveness, assurance, tangibles, empathy and reliability), it was observed that reliability was the only one with a negative gap, thereby indicating dissatisfaction with the reliability of the service. The next dimension requiring immediate improvement was assurance. Overall, there was a moderate level of satisfaction with the other dimensions.

Performance improvement

In MOH hospitals in Saudi Arabia, the effects of TQM practices on hospital performance were studied by Alaraki (2014). For the purpose of research, there are 4 hospitals that are short listed in the area of Tabuk. Also, the questionnaire was the chief instrument for assembling data. The research detected that there is an affirmative relationship amid TQM as an autonomous variable and hospital performance as a dependent variable. According to the second discovery, the TQM system is importantly connected to the hospital performance. And, the third discovery states that the staff position is related to the quality of administration method. In light of the fourth one, the certified hospitals utilized TQM system on quality of care more than the unauthorized ones. Al Awa et al. (2011), who addressed nurses and stated that the authorization procedure possesses a substantial impact on safety culture and quality of care, discovered the influence of accreditation on quality of care and patient culture in Saudi Arabia.

Challenges and solutions to TQM implementation

A different study by Withanachchi et al. (2007) evaluated TQM in tertiary care public hospitals within Sri Lanka between 1997 and 2001. A value chain analysis was conducted post-TQM, in order to identify changes in organisational management. Employee feedback was ascertained through qualitative interviews that facilitated the implementation of 5-S TQM, which helped assist in understanding the true complexion of organisational developments in healthcare. In addition, Abdallah (2013) defined various quality initiatives that can also fail in certain organisations. Sixty representatives from 28 hospitals took part in a questionnaire that tried to ascertain the best way of understanding TQM implementation. Results from both approaches

compared and highlighted distinctive challenges and explored how TQM quality is applied within hospitals.

Similarly, a study in Sweden was conducted by Nystrom et al. (2013), who demonstrated that competing activities and projects may interfere with new quality approach techniques knowledge. This was initiated through an organisational learning programme called the Dynamic and Viable Organisation (DVO). These investigations aspired to advance employee competence and change facilitators despite no strong indication being present that they would benefit strategically and develop TQM. Later, in 2014, a study conducted in Turkey revealed that TQM can be affected by variables such as lack of employee involvement, resources, commitment and awareness and having inappropriate firm structure (Sadikoglu and Olcay, 2014), all of which prevent effective TQM implementation.

Driving forces of TQM

Driving forces were discussed in the review under four main categories:

- Commitment to leadership in the healthcare context.
- Training and education.
- Employee involvement in decision-making and the influence of colleague interactions.
- Internal communications and the customer interface.

Commitment to leadership in the healthcare context

It is thus the hospitals are accountable to make up physical, mental and social atmospheres that are good for patients and workers similarly, and the administrators are supposed to focus on stimulating their health and well-being (Al-Ali, 2014).

With populations becoming culturally diverse, patient-centred care principles are important in ensuring quality management (London, 2008). This requires a high level of commitment by management to drive this patient orientation. According to Awuor (2013) management commitment is central to achieving this aim, since improvements in quality in the health sector have a meaningful effect on the efficiency and competitiveness of services in both public and private sector hospitals. Furthermore, Bergh et al. (2012) emphasised that managerial support helps develop visible patient education routines. Such an approach may be beneficial in Saudi hospital management practice by introducing policy interventions that target nurses' workloads, pay, promotion and professional support, in order to increase retention in areas such as critical care, from where most are leaving (Alasmari and Douglas, 2012). It is natural to think that a positive focus on employees such as nurses, who interface directly with patients, is a key ingredient for positive orientation towards patients. It is understood that management

commitment through proper TQM practice can positively influence nurses' attitudes and behaviours (Ooi et al., 2012; Sweis et al., 2013).

Management's commitment to patient care is also reflected in its willingness to engage in strategic planning driven by the will of effective leaders. It was demonstrated that improvements in strategic planning practices are effective, although various healthcare organisations experience problems in strategic plan implementation resulting in successful performance (Alic and Rusjan, 2009). A key aspect of this strategic planning is the conduct of internal audits. Alic and Rusjan (2009) determined that IAs provide a way of improving businesses, as they can have a positive effect on the attainment of objectives. A key aspect of this internal evaluation through audit is to ensure that standards are met continuously, in order to achieve organisational objectives. Through the effective implementation of TQM, organisations practice commitment and visionary leadership, in order to develop effective communication. Likewise, visionary leadership provides an organisation with the vision of a positive link with TQM implementation. Furthermore, the study emphasised that TQM relates to the organisational environment, employee involvement and their empowerment, while the CSF of TQM is 'customer focus', as service culture is vital in this construct (Gorji and Farooque, 2011). Overall, it was shown that the critical elements of CSFs relate to management developments that advance the correlation between TQM and the performance of an organisation through complete commitment and visionary leadership. Management commitment and leadership style were found to affect nurses' satisfaction in Saudi healthcare (Abualrub abd Alghamdi, 2012; Alloubani, 2014), which in turn affects patient satisfaction (Alaloola, 2008; Alghamdi, 2014). This reflects the importance of management commitment and leadership in outcomes related to patient care and satisfaction. Management commitment is thus essential and must assume a TQM focus that is received well by employees (Boon et al., 2007) who will willingly adopt a patient care orientation.

Training and education

Education and training in the healthcare sector are critical to the delivery of quality care to patients. However, Avsar and Kasikci (2011) express concern with the current state of nursing education and argue that it does not sufficiently develop or help nurses fully internalise their role as health educators, or provide the vast knowledge and skills needed in patient education. Effective developed training programmes have a positive effect upon a healthcare team's ability to advance their mission, vision and action plan. Terzic-Supic (2015) found that strategic positioning and quality of care exhibited positive influences on the quality of the description of the hospital's mission and vision in following a training programme. The introduction of

training maximises the transfer of knowledge in the workplace and encourages leadership that is action-based. Accordingly, it is evident that multidisciplinary managerial teamwork results in success, as it focuses on organisational values, culture and interpersonal relationships. Building on this notion, a Finnish study, by Kaariaine and Kyngas, (2010) approached 916 health professionals (93% nurses and 7% doctors) and found that the majority of participants had good knowledge to provide patient-centred education, although their knowledge differed in line with some personal variables such as age, gender, years of experience and language.

With the increasing amount of immigrant nurses and the need for high-quality patient care in Saudi Arabia, cultural education and guidelines for non-Islamic nurses are required to enable congruent, comprehensive and quality patient care by eliminating barriers such as language (El Bcheraoui et al., 2015). This study recruited more than 10,000 attendees at clinics and found that Saudi attendees do not take advantage of health services and need educating, possibly through advertising by organisations themselves. Language was also reported as a barrier in other studies and threatened patient safety, including daily nursing tasks (Floor Rosse, 2015). In this study, language was not recorded in patient documents, due to the presence of language interpreters. Furthermore, an earlier Nordic study by Emine Kale (2010) recruited 453 participants (doctors and nurses) and examined the need for interpreters as well as their role and competency in healthcare. In the light of the study, the interpreter was required to test the conversation with a recent patient from the related information in the referral, i.e. when such sort of requirement was openly or unopenly declared. Doctors need interpreters more than nurses on occasion, as they may need to do more assessments or examinations. However, the reasons for not using interpreters included poor availability, time, financial issues and sometimes patients themselves may not be keen to have an interpreter.

According to Koivunen et al. (2012), the use of information technology-based patient education and conventional patient education demands that nurses constantly learn or require training as advisors, teachers, limiters and collaborators. Additionally, Almutairi and McCarthy (2012) point out that educating nurses about Saudi people's cultural heritage, which is steeped in Islam, is important in increasing cultural harmony amongst foreign and local health professionals. According to Jradi et al. (2013, 66), if nurses in Saudi Arabia received a proper education, this would enable them to practice more effectively by "applying critical appraisal skills in decision-making, even in clinical settings where uncertainties are encountered." Furthermore, they proposed that such opportunities for education would facilitate Saudi nurses in taking the lead in social responsibility and fulfilling the need to understand the causes of health issues for Saudi nationals (Jradi et al, 2013), in order to provide a better quality of care.

As a result, nurses or those in the healthcare sector that are effectively educated can assume an indispensable role in a preventive population health regime, which is a more effective strategy of prevention as opposed to seeking cures. Improved TQM practice through patient education, health advocacy and the redesign of services for better delivery not only meet expectations of employees in terms of better conditions, personal development, fulfilment and satisfaction, but also lead to improved patient satisfaction and quality of care. Research done by Hussein (2014) revealed that nurses and physicians in Saudi hospitals share an equally low perception that patient-centred care in their establishments is poor. As a result, this suggests to the study's researcher that patient-centred care requires increased focus, to enable improvement. This thesis, in great part through an exploration of TQM practice and assessment of existing quality of care, attempts to unearth the issues facing Saudi hospitals in the delivery of quality care and service.

Employee involvement in decision making and colleague interactions

TQM healthcare set ups are reliant on the nurses so as to execute the values of health advancement and health education (Whitehead et al., 2008), since they are central to frontline service delivery. Key staff, such as nurses, who interface directly with patients require strong institutional support. Sweis et al. (2013) stated that a lack of support and information could be a potential barrier to employees (nurses), who must be given the tools and sense of responsibility that impassions them and the employee to deliver. A lack of empowerment will be counterproductive to TQM implementation (Cantrell, 2011). Additionally, Withanachchi et al. (2007) showed that employee participation was also a key factor that facilitated the implementation of TQM. Indeed, Abdallah (2013) highlighted that employee morale could distinguish the level of success of TQM implementation. The centrality of the role of the employee is strongly endorsed by one of the more prominent TQM advocates, who clearly suggests that TQM implementation cannot be successful without employee involvement (Duggirala 2008). One of the major questions or concerns of top management is how to make employees feel committed to their organisations. The literature reveals that their commitment to an employer is a function of their interaction and relationship with that organisation, which are strongly related to the attitudes of management towards employees (Schttenkirk 2012). Thus, management support and involvement could be pivotal factors, too (Alexander et al., 2007) in the fulfilment of objectives, though employees must be central players in achieving these objectives and feel a part of the decision-making process (Mosadeghrad, 2013).

Another influential factor related to employee commitment and TQM practice is the extent of employee interactions with peers or other colleagues. Research in the health sector, conducted

by Glenn et al. (2014), revealed that nursing practice and commitment are influenced by the nature of team members' interactions, which, if positive, affect quality outcomes and the safety of patient care. This particular finding supports an earlier study by Withanachchi et al. (2007), which also found that there is a positive relationship between teamwork in hospitals and the increased potential for the successful implementation of TQM.

Internal communications and the customer interface

Organisational internal communication was recognised as a key dimension for the critical success of TQM adoption (Irfan and Key, 2013; Mosadeghrad, 2014). Effective dissemination of information in the organisation for the advancement of TQM has been long established in the literature. For example, Allen and Brady (1997) suggested that it is essential that superior-subordinate relationships must maintain positive and open communication relations in order to effect a quality information exchange environment. In addition, established communication researchers Fairhurst and Wendt (1993) suggested that this relationship could be further strengthened through the establishment of a team-based system, in advance of the development of a TQM culture, to ensure co-operation. Such a practice facilitates an environment that is characterised by openness, empathy and equality of participation, which are consistent with the traditional TQM philosophy and practices advocated by Johnson (1993), Schmidt and Finnigan (1993) and, more recently, Salaheldin (2009). The extant literature advocates that senior management, middle managers and employees on the lower levels of the hierarchy must seek to improve continually information quality and the relationship dimensions of intra-organisational communication. In the healthcare sector, the work of Dutta and Basu (2008) reinforced the idea that communication plays a significant role in hospital management practice, as it relates to TQM.

Valmohammadi and Roshanzamir (2015) argued that it is essential that communication is open to help strengthen the level of engagement and the free flow of information, both of which are necessary for the successful implementation of a TQM approach. Furthermore, more research has shown that employee perspectives on effective communication relationships with co-workers and management within the organisation account for some of the attitudinal organisational commitment and perceived organisation support (Allen, 1992), which is more than likely to lead to employee satisfaction (Mahmoud, 2008; Rad and Yarmohammadian, 2006). Schmidt and Finnigan (1993) emphasise that managers must ensure that all members of their team be kept informed and communicate effectively with each other, as this has a meaningful impact on the likelihood of achieving set visions and goals, especially relating to improved organisational performance. As stressed by Klein (1992), communication is central

to motivation and task accomplishment, especially during periods of change, which are often set in motion by the adoption of a TQM approach. Effective communication practice has a key role in successful TQM adoption and implementation, which leads to quality of care and patient satisfaction. Consistent with TQM philosophy and practice, a positive communication environment is an absolute necessity for the establishment of a TQM culture (Gorji and Farooque, 2011; Irfan and Key, 2013; Mosadeghrad, 2014).

Cultural perspective on total quality

In addition, Wehbe-Alamah (2008) provided knowledge on traditional Muslim beliefs regarding care, in order to assist nurses and other healthcare professionals in their jobs as well as understand major issues that could improve quality. According to Wehbe-Alamah's (2008) study, the use of Leininger's culture care model for preservation, maintenance, culture care accommodation, negotiation and culture care should reformulate concepts and improve the final TQM. In their US study, Singer et al. (2009) sampled senior managers and physicians and found that, generally, organisational culture was strongly related to safety. Likewise, it was also argued that patient's culturally sensitive healthcare considers offering a physical healthcare centre environment characteristics and policies that patients from different cultures satisfy with them and identify them as indicators of their respect for their beliefs and make these patients comfortable and trusting healthcare providers (Herman 2012). Herman's study compared patients from African-America and Non-Hispanic White America and found that patient-perceived provider culturally sensitive care was likely to increase adherence to providing more proper care that would satisfy patients from different cultural backgrounds.

Although the cultural perspective was crucial, clinical practice guidelines (CPGs) were also important in designing nursing care in Saudi Arabia. For example, in the study by Wahabi et al. (2011), 2,225 healthcare professionals were approached, and more than 90% considered using clinical practice guidelines in their decision-making, as they were effective in unifying and improving the quality of patients' care. Nearly all of participants in the latter study (97%) agreed that CPGs were a good educational tool, with less than half agreeing that clinical practice should be based exclusively on scientific evidence. Overall, there is a good positive attitude towards the use CPGs in clinical practice, which from their perspective changes the way they manage patients. In this study, nurses were more likely to use CPGs than doctors and other healthcare professionals. The findings also differed in relation to years of experience.

Nurses Performance in the kingdom of Saudi Arabia

According to Aldossery et al. (2011) conducted a study that examined how nursing practice in Saudi is perceived, by surveying the views of 614 nurses, 130 doctors and 322 patients in 10 hospitals. The study indicated that nurses were well-skilled in health promotion in general, but most patients wanted them to be more skilled or prioritise acute care over health promotion. The study further revealed concerns regarding language and the cultural competency of migrant nurses in providing health services more effectively, thus recommending the implementation of TQM to standardise support and ensure effective practice in nursing routines.

The aim of the research by Al-Homayan et al. (2013) was to analyse how job performance levels affected the performance of nurses in Saudi Arabian public hospitals. A questionnaire was administered to hospital managers as the main tool of the study. A sample size of 380 nurses was used, which was based on the formula set out by Krejcie and Morgan (1970). Moreover, in this study, questionnaires were utilised, as they would garner specific responses in relation to job demands and resources, job stress, organisational support and job performance.

Al-Homayan et al. (2013) used Cronbach's alpha values of the variables, and the alpha values ranged from 0.735 to 0.964, which was at a higher level than the threshold (0.70), thereby indicating that the instruments that were utilised in the measurements were reliable. Additionally, a factor analysis through varimax rotation was subsequently conducted on 41 different measured items, in order to determine which should form the dimensions. Moreover, the study analysed the findings relating to reliability and co-ordination of care.

In addition, the study by Al-Homayan et al. (2013) presented a summary of independent variables, as well as mediating variables, moderating variables and dependent variables, which resulted in a measured mean of between 1.27 and 3.97. Overall, approximately half the variables (47.37%) had moderate mean values (2.34- 3.67). Comparatively, 31.58% of the variables had mean values in excess of 3.67, which were shown to be: co-ordination of care, technical care, interpersonal support task significance, task identity and compliance. Meanwhile, those that measured as low values (less than 2.34) were 21.05%, and these were seen as emotional demands, shift work quantitative demands and physical demands.

In total, in Saudi Arabia, nursing job performance levels in public hospitals were shown in the study by Al-Homayan et al. (2013) to be rated as "moderate" (3.62), which was similar to previous studies that researched the Saudi healthcare and nursing sector. Furthermore, this study presented a model that tested 632 nursing staff within one area of Saudi Arabia, and from

assessing the factors that affect nursing staff in hospitals, the Saudi Arabian MOH determined that in order to increase their job performance, improvements in quality were necessary. The study by Al-Mahmoud et al. (2012) approached nurses from three health sectors in Saudi Arabia (MOH, military and private). In the study, gender was an issue, as males have over half the places and there is no degree-level provision for them. The region in the kingdom was also another issue, as the distribution of nurses was not well-organised because provision was almost exclusive to the east, west and middle but not to the south or the north, which meant applicants had to travel significant distances to gain a degree.

In order to reflect the patient's perspective, a cross-sectional survey was conducted among 448 patients admitted to King Khalid Teaching Hospital, Riyadh, assessing six dimensions of nursing through a four-point scale (4- highly agree - 1- highly disagree). The study's results demonstrated patients' negative experiences with nursing and technical care, care behaviour and nurse competency, meaning it would be necessary to develop TQM for patient-centred healthcare.

Another study focused on one healthcare organisation striving to reach optimum quality level. King Abdulaziz Medical City staff perceived a patient's perspective to indicate the function of quality indicator, as the investigation aimed to highlight patient satisfaction (Alaloola and Albedaiwa, 2007). The cross-sectional survey involved 1,983 patients, all of whom completed a satisfaction questionnaire, which was studied in a socio-demographic context. Consequently, the study recommended that when patients are significantly dissatisfied, senior leaders should advance TQM.

Nurses' expectations surrounding the development of TQM

How TQM influences the empowerment of employees was analysed by Sweis et al. (2013), with training, teamwork, top management commitment, continuous improvement and customer satisfaction being evaluated in depth. The hypothesis was tested using a survey questionnaire survey given to employees at King Khalid Hospital, with the findings indicating the benefits to employees of TQM development. However, Sweis's study had some limitations, as it was conducted in a solitary hospital. Duggirala (2008) produced a study within India that highlighted vital concepts of TQM in the healthcare sector and how organisations and employees should function. Initially, a questionnaire was implemented through a pilot survey amongst medical professionals, through reliability and validity tests. Multiple regression analysis was used to examine the results. In conclusion, 14 distinct factors were found that had a positive and significant relationship to TQM, with hospital administrators and professionals using feedback to assess hospital performance. Furthermore, an earlier study by El-Moneim

(2015) supported these findings and found a significant impact of all TQM principles on overall hospital effectiveness in HCAC-accredited governmental hospitals, thus showing that TQM is a strong predictor of hospital.

Similarly, a study by Schttenkirk (2012) showed that an experiential Lean Six Sigma training model, first introduced in 2006, will lower the amount of time it takes for a healthcare environment to become operational for employees. This form used a Kaizen methodology that determines TQM changes and improvements. It was determined that a healthcare organisation could reach a capable level of internal self-sustainment following in just four months of commencing their Lean Six Sigma journey.

Quality management implementation outcomes

Quality of Care

Research conducted by Rad (2006) reported that hospitals in Saudi Arabia generally received medium scores for TQM and very low scores for TQM implementation. This reflects potential challenges and the need to identify potential causes. Moreover, the research demonstrated that TQM could improve organisational performance through process improvement, as TQM analyses these processes in order to provide customers/clients with better value products or services. Research by Pereira-Moliner et al. (2012) demonstrated the positive effect prevalent between TQM and performance through motivating nurses and OHPs. As discussed earlier, most of the factors driving successful TQM adoption and positive outcomes are internally focused. However, it has also been argued that TQM depends on patient behaviour and the extent of their involvement in the process of delivery (Grohl, 2000). Research evidence suggests that there is a need for firms to encourage patient involvement through patients being able to state their own opinions on the quality of care and the design of TQM. This leads to an increased level of fulfilment and patient satisfaction (Grohl, 2000). For example, Chang et al. (2007) reported that quality patient education improved the outlook of patients who were more satisfied and more willing to live with illness and take some responsibility for their own health outcomes.

It should also be stated that the study by Mosadegh Rad (2013) provided details in regards to various critical factors that are essential if TQM is to become successfully implemented, which in turn lead to an increase in productivity and employee and customer satisfaction through a TQM culture. TQM increased top managers' commitment to quality and customer satisfaction in 96.4% of healthcare settings, while in 67.2% of organisations it advanced the knowledge of employees, together with their innovation. Meanwhile, TQM brought about continuous quality

improvement in all the organisations. Additionally, TQM advanced technology, research and development in 96% of cases, and it also resulted in the documentation and investigation of complaints in 94.5% of the cohort. Furthermore, all the healthcare organisations showed that TQM results in better development between employees and managers. Furthermore, Talib et al. (2011) showed by way of an example in the Middle East that eight vital TQM practices are identifiable: leadership, teamwork, process management, customer satisfaction, resource management, organisational behaviour, continuous improvement and training. Abdallah (2013) found that in Saudi Arabia there was major negative feedback regarding TQM in hospitals. Likewise, Al-Borie and Sheikh Damanhour (2011) show various differences in opinion from across Saudi Arabia in relation to TQM. The cause of this variability is of particular interest to this doctoral researcher, because at the very least it relates to the health sector. The aim of TQM is to meet or exceed the requirements of patients, families, staff, health professionals and the community (Harrigan, 2000), and thus it is the researcher's intention that this doctoral research will contribute to improvements in this regard.

Summary of TQM constructs in the literature

TQM constructs

The various analysed studies helped define a base for the current research, as the different investigations provided details in regards to TQM and its overall use and benefits. Consequently, this assisted the researcher in understanding how to proceed with this study in the context of Saudi Arabian hospitals. Moreover, the implementation of TQM was determined as depending on various processes of management and control, as well as using relevant techniques, which will ultimately ensure patient and healthcare professional satisfaction, as TQM is based mainly on the orientation of patients. Nonetheless, TQM is known to influence healthcare systems and lead to quality improvements in care, which were also shown through the different analysed studies, as well as quality leadership improvements and strategies that focus on cultural change and differences.

The literature holds essential information on the Saudi healthcare system, as the MOH is the main healthcare provider. The ability of the MOH to manage and finance the nation's healthcare system, and the challenges and barriers associated with offering healthcare of good quality, were highlighted, and although the MOH has a good record in relation to its achievements in healthcare, there still remain many challenges. The literature provided a foundation for the study, as it contains a substantial amount of information about TQM that will be helpful in understanding the requirements for its implementation in Saudi hospitals. However, most of the research and foundational models identified in the literature were

developed based on research in western contexts, so the present study, it is hoped, will unearth unique issues and challenges, although some will be consistent with previous research irrespective of context.

The aim of this research was therefore to explore the existing state of TQM practice in Saudi hospitals from the perspectives of management, nurses and patients with a view to improving efficiency and productivity in the healthcare system and enhancing the overall quality of healthcare provision. A theoretical framework is presented below in Figure 12, reflecting the key concepts explored in the conduct of this thesis work. The research was thus look at these concepts and relationships in the Saudi context. The study and relevant data collection were carried out in two stages and will be discussed in the ensuing chapter. The next chapter presents the methodology adopted by the study.

Proposed TQM conceptual framework from a literature review in the Saudi context

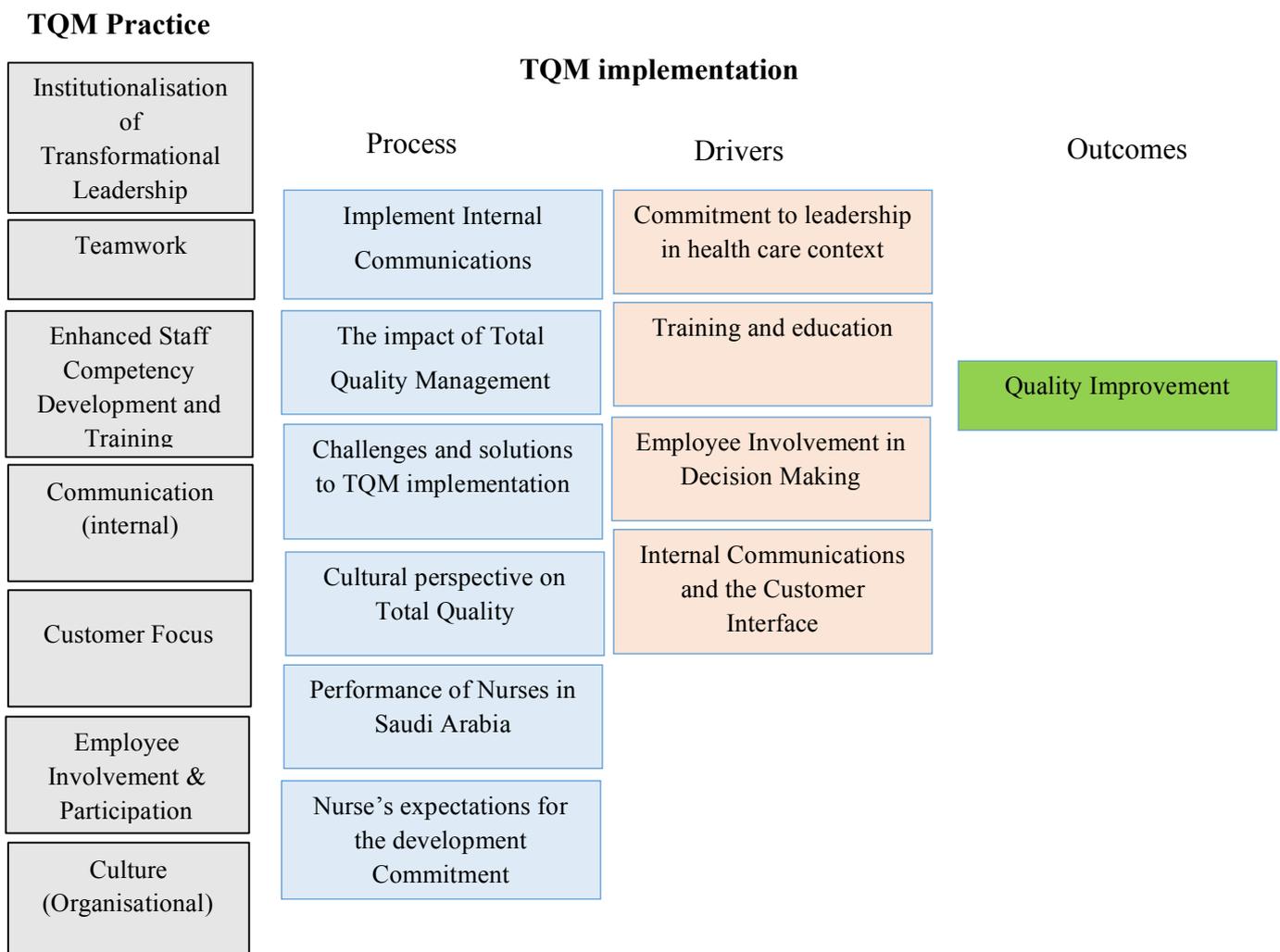


Figure 13. Proposed TQM conceptual framework from a literature review

CHAPTER FOUR: METHODOLOGY

Introduction

The current chapter explains the methodology that was used for the research, while the specific model for the main approach was the research onion model, which has a variety of layers, as shown below (Saunders, Lewis, & Thornhill, 2012). Moreover, the individual steps and processes are provided within the chapter, as well as the structure that is utilised in order to accomplish the research objectives. In relation to the onion model, the initial layer is of a fundamental purpose, which develops the principle philosophy within the research's construction. Following this, there is the layer of approach, which details the method approaches of research accomplishment, including: the abductive, deductive and inductive. Then, there is the layer of methodology, which contains the different methods: quantitative, qualitative and mixed, which consequently results in the appropriate strategy selection in research performance. This also selects data collection methods that are suitable for the research, as well as the strategy for data analysis.

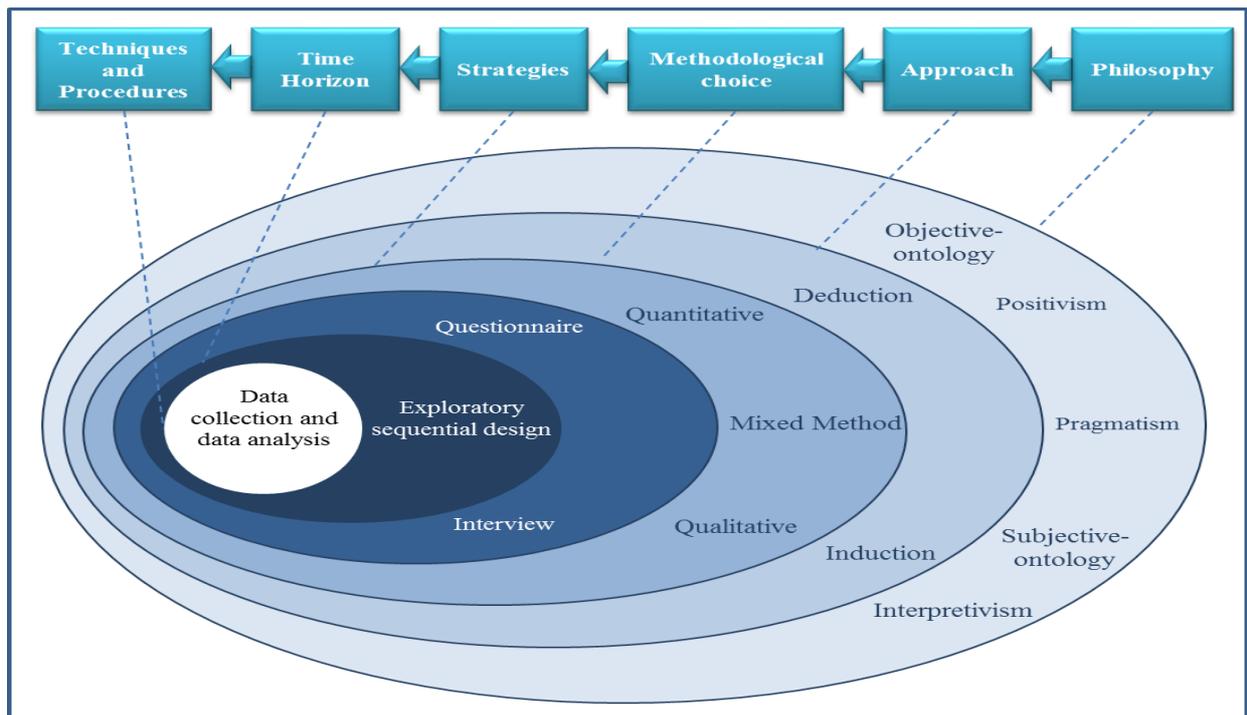


Figure 14. Research Onion diagram (Saunders et al., 2013).

Philosophical Foundation and Paradigms

As was stated by Saunders et al. (2012), the advancement of knowledge its specific nature are the main focus points of research philosophy, which entails important perceptions in relation to the views of the researcher and how the world and reality is assessed (Saunders et al., 2012). Therefore, philosophy of the research and how related to the world view for the researcher and their assumptions about knowledge through encountered realities, which inevitably determine the question of research and its understanding, together with the design of the associated research (Saunders & Tosey, 2013). A variety of different philosophical approaches are possible, which include ontology that relates to reality perception through objective and subjective lenses, alongside epistemology, which functions through a more pragmatic, realistic, interpretivist and positive formation. Additionally, the understanding of value is determined through axiology, which determines judgements within the research regarding specific value. As a consequence, all of the above mentioned philosophies are used for their individual purposes, while the specific selection is dependent upon the aim and objective of the research (Saunders et al, 2012).

In order for the philosophy of the research to be defined, devised of the three questions: (1) The ontological regarding reality's nature; (2) The epistemological question in relation to the connection between those who know and knowledge; (3) and the third question from a methodological viewpoint, which asks the form of learning something (Pickard, 2013). Indeed, which helps in the selection of the research design's effectiveness in relation to its observations, whilst also enhancing the ability of the researcher to utilise a new form and design of research design that has not been used previously (Esterby-Smith, Thorpe, & Lowe, 2002). Therefore, the ontology, epistemology, together with axiology, help shape the research philosophy that improve the understanding of the methodological steps, processes, and layers within the research.

Ontology

It has been stated that ontology is base of reality (Saunders et al., 2012; Pickard, 2013). This process which involves the creation of assumptions by researcher within a study, as well as questions in relation to the function of the world as a whole and an assessment in a specific context together with its obligations (Saunders et al., 2012). In total, ontology has two different forms, which are objectivism and subjectivism.

Objectivism

It was stated by Sanders et al. (2012) that ‘the objectivism can represent the position that social entities exist in a reality external to and independent of social actors’ (p.131). This could be possible for utilisation a positivist approach in order for theories to be explained and tested (Saunders et al., 2012). Moreover, objectivism was also defined as ‘for ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors’ (Bryman & Bell, 2011: p. 21).

Subjectivism

The events of social are the focus of subjectivism that incorporate social activities and include interactions between different users, phenomena, which is utilised in situational understanding processes, as well as influencing phenomena and the underlying reasons for them (Saunders et al., 2012). Accordingly, the most effective form of subjectivism is when it is used together with interpretivism (Saunders et al., 2012). Overall, there is a main focus on idealism, which is reality as perceived by individual though (Sexton, 2003).

In the current study, two forms of ontology were used by the researcher. Firstly, by investigating TQM managers and head nurses in the interview, together with the use of their perspective and stories when the researcher met them. Subjective reality was observed Secondly, through the observation of the statistical realities about confirming qualitative themes by using of a questionnaire objective reality was observed, which also gave measurements of factors through the utilisation of the Likert scale. Consequently, it was possible to determine the correct epistemology to function through these two forms of ontology.

Epistemology: Pragmatism

The manner of reality knowledge and its philosophy is determined through epistemology (Pickard, 2013). This process is directed through suitable levels of knowledge and adequate field of the research information (Saunders et al., 2012). Furthermore, form the philosophy, epistemology works together knowledge of the sources and is particularly directed around knowledge and limitations, possibilities, nature and sources (Dudovskiy, 2011). Overall, a variety for epistemology forms. Firstly, positivism achieves research aims through logical reasoning and methods that are empirical, which centres on scientific nature, truthfulness and common understanding. Moreover, positivism ignores any particular participant relationships, as well as their experience and different behaviour (Saunders et al., 2012). Secondly, there is interpretivism, which may offer a greater understanding knowledge of why actions are taken

by people (Pickard, 2013). Meanwhile, the devised meaning is dependent upon the specific context, as well as how the action or opinion is interpreted, which can be affected directly by the setting (Dey, 1993). Overall, interpretivism concerns itself with social science, as the individuals become the subject through their actions. Thirdly, pragmatism is utilised in order to detail action, which often combines the forms of interpretivism and positivism (Saunders et al., 2012). Accordingly, the pragmatism is ideal with a mixed method approach (Creswell & Clark, 2011; Kelemen & Rumens, 2008).

Current research used pragmatism, as it is best in studies that pertain to the support of different actions, and specifically due to the fact that the current study is directed around. Moreover, the particular research objectives are the principle reason for this philosophy selection (Kelemen & Rumens, 2008); while pragmatism can also be utilised through various philosophical prepositions (Saunders et al., 2012, p. 127). This current investigation was structured by different positions of philosophy, as certain points related to a positivist outlook which objective using scientific method, while different aspects related to the interpretivist approach which is the social that opposes the positivism of natural science. Additionally, practical results are the focus of pragmatism, which stem from the belief by researchers that various ways exist to explain phenomena and complete research. In particular, the TQM practice in different government hospitals within Saudi Arabia were tested in the current research. Furthermore, in order to collect data and conduct research, a variety of methods can be utilised through pragmatism, as well as sometimes a single method (Kelemen & Rumens, 2008), and thus, the current research's mixed methods' approach is supported.

Approach

Three different approach types exist in the form of deduction, induction and abduction, while each on may function with contrasting philosophical definition, as for instance, positivism can function well with deduction, while induction can be effective together with an interpretivist approach (Saunders et al., 2012). Nonetheless, it is possible that the abductive approach works well with both deductive and inductive, as it is possible to function with various philosophical forms.

The current research has adopted the induction approach that is structured by 'starting from the data to theory' (Saunders et al., 2012, p. 147). Accordingly, the induction has its base in data collection in regards to precise phenomena in order to obtain a clearer comprehension of an issue; while the data analysis develops the theory's formulation (Saunders et al., 2012). As well as, induction approach shifts to a good specific definition from the general, which is utilised in qualitative research. The induction approach does not need to incorporate an

intricately structured methodology, as only a minimal data collection sample is requiring (Saunders et al., 2012). The current study provided data collection via the process of interviews, which helped detail different individuals' perspectives in regards to the possibility of TQM providing high quality of care, as well as demonstrating the conceptual framework including factors that helps to present the implementation strategy's process and effect between the ground level and government.

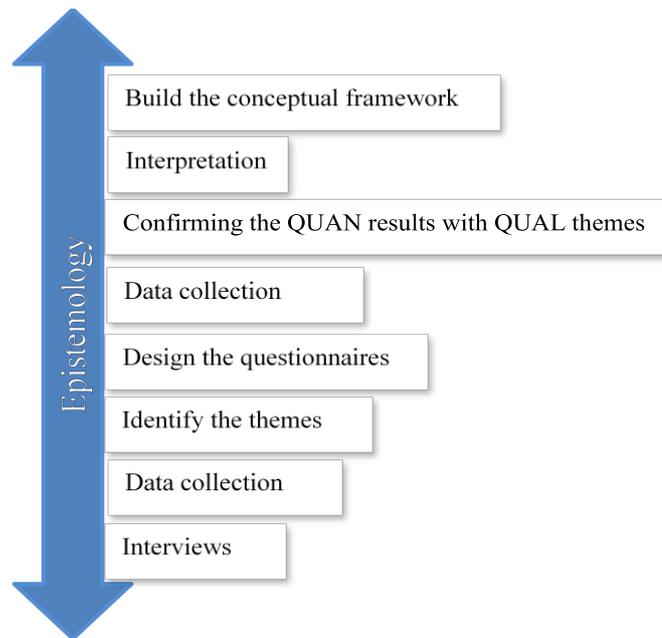


Figure 15. Induction approach.

Methodological Choice

Qualitative, quantitative, and mixed methods are the three different major research methods, and each one is utilised for a particular form of research, as they all help to attain the set targets of research and the objectives (Saunders et al., 2012).

Qualitative

In order to investigate individual behaviour, as well as different attitudes and experiences qualitative research is utilised through the use of data collection techniques, which can be conducted in the forms of focus groups or interviews (Dawson, 2013). Different participants' understanding and how their interactive relationships are correlated are studied through qualitative research, which is conducted through the techniques for the data collection. Furthermore, interpretivism is used in qualitative research, while the inductive approach helps to establish an innovative model or theory (Saunders et al., 2012).

Quantitative

Correlation between different variables of the research is investigated through the quantitative research, which based on numerical data measurement via statistical of the techniques that are used in data analysis (Saunders et al., 2012). Quantitative research has its base set in a theoretical framework that is always derived from the decisive review of literature, as this enables the researcher to acquire the set research aims and objectives that form the hypotheses (Dawson, 2013; Pickard, 2013). Additionally, positivism is placed together with quantitative research, as together with deductive approach in order for testing test different theories. Meanwhile, it is also possible to utilise the inductive approach in the process of theory creation (Saunders et al., 2012).

Mixed Methods

It is possible for a mixed methods approach to be adopted, which combines both qualitative and quantitative forms of methodology in the design of the research, as this gains a clearer comprehension of different possible concepts and specifics of research (Creswell, 2007; Creswell & Clark, 2011; Saunders et al., 2012). Additionally, not only one technique of data collection is utilised in the mixed method approach technique, as the data from both qualitative and quantitative forms are required (Creswell, 2011; Saunders et al., 2012).

The mixed method approach can be seen to have both disadvantages and advantages, as Creswell and Clark (2011) stated; the advantages were listed as follows:

- It provides the strengths of using quantitative and qualitative approaches, which function against the negatives;
- By providing more evidence in relation to an issue, the research is supported better;
- Exploration is advanced, which is not possible through a single approach and answers are found more easily;
- The quantitative and qualitative approaches can be connected well, which helps to link the parts together as a whole;
- A better multiple empiric perception is instilled;
- Explanations for both numbers and words are provided in relation to new findings.

Nevertheless, as already stated, there are different disadvantages through the mixed method approach, as stated by Creswell and Clark (2011):

- Experience of both quantitative and qualitative techniques are vital;

- Sufficient levels of comprehension are required from the research in regards to collection of the data and techniques of data analysis for mixed methods;
- Factors such as validity, reliability, control of the experiment, as well as the generalisability are all required to be understood prior to undertaking a mixed method approach, as well as understanding how to identify the correct issues and research question;
- Time needs to be managed effectively by the researcher, especially in relation to data collection and analysis, to allocate enough to both forms;
- Adequate resources are needed to acquire the correct amount of evidence from both the quantitative and qualitative forms;
- Awareness of the overall expense incurred by the research is vital, which includes parts such as: recording, printing, software expenses, and transcription.

Taken from the information above, the mixed methods approach was decided upon, as it would enable a greater level of comprehension into how the practice of TQM in Saudi hospitals is affected by perspective of the three levels. Accordingly, a mixed methods approach can actually help present a clearer understanding of a specific phenomenon, as the combination of quantitative and qualitative methods create bilateral support that help advance beyond their weaknesses (Creswell, 2015). Moreover, the mixed statistical results are advanced by the use of the mixed method approach, which relates to how patients and nurses affect upon their practical experiences in the government hospitals as individuals answer. The statistical were shown in order to produce the most beneficial results in relation to the patients and nurse's perspective. Therefore, in order to answer the question of research correctly and in a coherent manner, it was required that a mixed methods approach was utilised. Indeed, the research will be strengthened by the higher level of approach to collecting and analysing data, and thus, create a greater level of influence upon the findings, in order to answer the particular research objectives (Saunders et al., 2012).

In addition, there is two distinct level of design involved in the mixed methods approach: the basic design and the advanced design. Three form of design were included in the basic format: the convergent; explanatory sequential; and exploratory sequential. Meanwhile, there were three forms in the advanced format: the intervention; social justice; and multistage evaluation. As a result of the need for the present research and its specific research question, the exploratory sequential form was seen as the most significant, which investigated and measured potential

evidence to answer the main question, and thus, the specific research strategy was adopted (see Figure 3.4).

Research Strategies

The research strategy is devised the researcher to answer the set question of research (Saunders et al., 2012). This is a methodological connection that occurs which between the developed of philosophy towards utilised method, the collection of data, to analyse the data, in order to produce the aims and objectives of the research (Denzin & Lincoln, 2005). This process takes its base from the existing knowledge that is presented in the literature review from various forms: archives, action research, different case studies, experiments and surveys. (Saunders et al., 2012).

Sampling

It is crucially important to use the appropriate sample and sampling technique, in order for the analysis in the research and data collection to be accurately accomplished. Additionally, the sampling utilises a small amount of participating individuals, as the speed of result acquisition is improved, whilst also adhering to a particular form (Saunders et al., 2012).

Nevertheless, the form of research dictates the size of the participating sample (Dawson, 2013). For instance, more people will be required to be asked to participate in a large scale quantitative survey, which is in direct comparison to a small scale. Also, the objective following obtaining the results will also affect the choice of sample size, as if one has the intention to produce cross perspective. Accordingly, the results become more accurate when the sample is made larger, within quantitative research; although it is necessary to state that time and money are often restrictions, and thus, it is vital that the constructed sample is manageable.

Altogether, a total of 12 participants were selected in the initial stage of the present study to partake in the interviews at three different locations: MOH (4) and two medical cites (4 each). What is more, the research had 350 patients and 220 nurses selected through the use of two forms of questionnaire in the second stage of the research, who were comprised from from two different medical cites within Riyadh.

Using mixed methods for the current study design

The study scheme should involve the research questions, purposes and the targets (Andrew and Halcomb, 2009; Buchanan and Bryman, 2009). The researcher has adopted pragmatism as a philosophy, as this allows for using induction (to gain a deeper insight into the meanings study participants attach to events and a closer understanding of context), deduction (moving from theory to data to establish relationships and generalisations) and abduction (uncovering and

relying on the best set of explanations for understanding one's result) in formulating analyses, whilst between methods triangulation enables the researcher to test the consistency of findings taken from different instruments to produce well-validated conclusions (Teddlie and Tashakkori 2009, Creswell 2013).

It was elucidated by Bergman that there are two chief physiognomies of the mixed methods literature: the concurrent design that has a target to incorporate qualitative and quantitative data in parallel, or the sequential design that utilizes one type of data to prolong or construct on the other (Bergman, 2008, p.66). Together the kind of data is assembled in concurrent designs at the same time and afterward incorporated to cause the interpretation of the entire outcomes (Creswell, 2003, p. P16). In order to identify vulnerabilities within one method with the strengths of the other method, this replica comes up with distinctive quantitative and qualitative approaches. Whenever the researcher executes the techniques in two unique stages, through (collecting and analyzing) one kind of data ahead of the other data kind, the Sequential timing takes place (Creswell, 2003). Together of the two arrangements can be carried out i.e. assembling qualitative data first, or accumulating quantitative data first. The Sequential methods are preferable if the evaluator require one data set originally to inform a succeeding activity; for instance, planning an interference, choosing contributors or to establish a device (Creswell, 2007).

The mixed method approach extends the breadth and range of enquiry as reflected in the diverse range of objectives restated below and the multiple research questions presented earlier on in the study. It is noted that combined quantitative and qualitative and methodology as single search study is a widely employed and acceptable practice in healthcare research (Sale et al., 2002). Furthermore, it was hoped that the mixed method employed in this study would provide stronger evidence for a conclusion through the convergence and corroboration of the findings, provide more meaningful insights that might not have been possible with a single method and be used to increase the generalisability of the results (Migiro and Magangi 2011). The mixed methods approach should deepen our understanding of TQM practice in Saudi public hospitals and its influence on the quality of care provision.

The objectives to be pursued are:

- 1- To explore the concept of TQM in Saudi Arabian public hospitals and the extent to which it is understood and implemented in practice.
- 2- To investigate context-specific issues that affect the effective implementation of TQM practices in Saudi Arabian public hospitals.

- 3- To identify the critical success factors needed for high-quality healthcare provision in Saudi Arabian public hospitals from the perspectives of providers (management and nurses) and patients.
- 4- To study the critical link between TQM practice and the provision of high-quality care to consumers in Saudi Arabian public hospitals and make recommendations for effective implementation.
- 5- To determine the implications of the findings (in 1, 2, 3, 4 above) for current theory about the nature of the relationship between TQM and quality of healthcare provision in Saudi and other country contexts.

Data collection tools

The study aims to evaluate and assess the perspectives of both nurses and patients in regard to the provision of high-quality care in Saudi hospitals. With the intention to assemble data effectively, the most efficacious assemblage instruments are used for issue resolving, favouring suspicions, hypotheses and helping to accomplish the target of the research (Royse, 2008). Moreover, the assemblage procedure comprises of research, resources, obtainability and time (Krishnaswamy et al., 2006). Thus, before choosing these assortment instruments, the aims should be detected along with knowing the responsibility of the exploration (Salkind, 2010). The research design was implemented in a two-stage process, with qualitative data first being collected via semi-structured interviews and subsequently quantitative survey data collected via questionnaires. However, the researcher purposely placed in advance greater weight on the qualitative dataset, as both Creswell (2013) and Morgan (1988) state that this is the prerogative of the researcher, given that two types of data could be given equal or unequal weighting. Both semi-structured interviews and questionnaires were selected as a conjoined process for data collection (see Appendix 7, 8, 9 and 10).

The use and value of mixed methods

Mixed method approaches have increased in both their importance and forms of application (Murphy and Dingwall, 2003; Kinn and Curzio, 2005). In particular, it is evident that one in every four research studies includes theoretical discussions in regards to the use and benefits of mixed methods (Kinn and Curzio, 2005). This stems from utilising clear and unequivocal aims in order to present sufficient evidence on an exploration into how combined theoretical application can overcome different limitations (Duffy, 1987, Murphy and Dingwall, 2003). In the current study, the mixed methods complement each other, as they create a correlation between the data through triangulation and identify differences and similarities, in order to formulate different concepts based on the aims of the research (Sandelowski, 2000, Creswell

et al., 2003). Indeed, data source triangulation is vital in removing bias, but it also increases comprehension levels and confirms the scope of evidence and result validity (Murphy and Dingwall, 2003; Kinn and Curzio, 2005).

When data are gathered through a closed questionnaire, the findings can be used to complement and comprehend the qualitative interview data, which enhances research validity and reliability for better evidence (Miles and Huberman, 1994). Prior to combining different methods to extract data, it is best to explore and evaluate each method (Morse, 1991; Miles and Huberman, 1994; Morse and Chung, 2003). Consequently, comparative data analysis from a variety of research levels was facilitated through a comprehensive research strategy that enabled effective management of various sources of data (Figure 15).

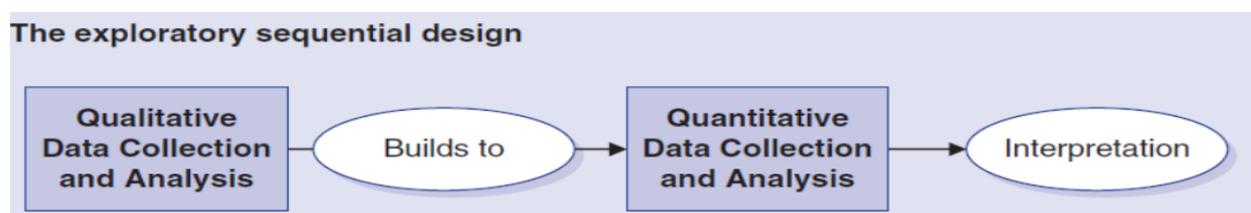


Figure 12. Explanatory Sequential Design (Adapted from Creswell 2013).

The rationality for sequentially

The nature of this study's research aim and objectives drives the choice of methods. As one indication of the growing interest in mixed methods, the Institute of Healthcare recently developed for researchers and grant reviewers the first 'best practice' guidelines on the approach (Creswell et al., 2011). For this study, I collected and analysed qualitative data, the findings of which informed subsequent qualitative data collection (Onwuegbuzie, Bustamante and Nelson 2010). The second stage was quantitative in nature, designed from the qualitative results (themes) to measure the level of conformity from the ground level the patients and staff nurses from the two medical sites KFMC and KAUH.

Phase one: qualitative method

The qualitative approach is defined as a procedure that learns how to comprehend clearer social meaning instead of statistical frequency (Silverman, 2011). Qualitative research is directed through a social remit, as data are obtained through contact between individuals instead of pure data analysis (Oates, 2006). Indeed, qualitative research helps to produce specific and detailed aspects from a particular real-life target, such as nurses and patients in this study. Furthermore, the approach focuses on a more intimate connection between the researcher, the research participant and the phenomenon (Rasooli, 2006; Silverman, 2011). Overall, it attempts to

produce knowledge through a person's personal perspective, which can then be interpreted for investigative purposes (Clarke and Braun, 2013).

The qualitative approach grew up under the school of social sciences and it highly vary from the conventional research methodologies, which allows the investigators to be aware of the individuals as well as the social and cultural concept. The motive behind the qualitative research is to provoke contributor's perspective's regarding their lives, so as to have knowledge about their involvements, feelings and social worlds (Fossey et al., 2002).

However, the qualitative approach has more of a generalisation relationship to the topic and does not focus on producing data that can be applied to a macro-assumption (Yin, 1994). In Saudi hospitals, the researcher can attain a deep understanding of TQM system and quality of care delivery by embracing a qualitative approach in this study. However, the significance of this technique cannot be denied as it illustrates the direct connection amid the researcher and participants, the integration of a flexible technique in the data assortment procedure as well as an investigation approach through the provision of the finest understanding relating to aspects influencing TQM in hospitals within Saudi Arabia. Qualitative research reflects adaptability when compared with the quantitative approach, as it can be redirected to achieve greater insights into the topic of question summary, which will result in additional analysis (Bryman, 2012).

Advantages and disadvantages of qualitative methods

Data collection and analysis within qualitative methods function through a more naturalistic approach than the quantitative option, which helps to gain a greater comprehension of how and why a certain phenomenon has occurred, instead of focusing purely on a statistical overview. Moreover, a qualitative approach gathers emotional and expressive dialogue, which enables greater clarity in understanding. This in turn functions as a means to acquire more sensitive and personal-based information and opinions, which was specifically, in relation to the current study, useful in exploring how TQM might increase care quality within Saudi Arabian government hospitals. On the other hand, as the process of in-depth interviews is time-consuming, the sample size needed to be reduced. Additionally, qualitative interviews remain generally unstructured and can become distanced from the initial topical question (Wisker, 2008), in which case the overall conclusions and theory become challenging in their generalisation to a wider population.

Semi-structured interviews

The first tool of measurement utilised within the present research was the semi-structured interview, which helped triangulate the data as the main source. A semi-structured interview consists of predetermined questions that are related to different points of interest and which sample respondents receive in order to confirm their legitimacy, as well as to identify specific factors and variables of attributes that can be analysed or used in a survey (Schensul et al., 1999: p. 149). Bias can become evident through a single method, researcher or theory study, though data triangulation intends to eliminate or overcome this problem (Denzin and Lincoln, 2016). Hence, multiple methods can validate the linked findings and their conclusions (Polit and Beck, 2008).

The combination of interviews with different measurement tools (i.e. observations or surveys) is vital to the triangulation of qualitative and quantitative findings (Klenke, 2008). Thus, a chance to evaluate multiple-methods consistency is evident, which provides a clearer picture of the topic of the set research (Polit and Beck, 2008). Consequently, the internal validity of the research findings increases (Hussein, 2009). Indeed, using interviews can prove greatly effective in understanding nurses' learning (Watson, 2008). Therefore, the current research used triangulation through the semi-structured interview process to strengthen its findings. In point of fact, various researchers believe that a combination of interviews within a survey will produce more constructive and validated results (Nykiel, 2009). Therefore, the information provided by a survey questionnaire can be clarified and verified through the process of an interview, which was required in the current study (McConnell, 2003).

In this thesis, semi-structured interviews were utilised with both TQM managers and head nurses, as it was felt that a deeper and richer vein of information was needed from providers because the study in great part focuses on TQM and quality processes within the public hospitals. Furthermore, this approach would allow the researcher to identify and verify contrasting views between staff nurses and their managers in regards to the areas of investigation. Conversely, interviews are frequently used for cross-cultural research, as there are ability to open the perception and thoughts, as well as help understand the investigated topics (McCurdy et al., 2004; Øvretveit, 1998). Thus, any collected data in this study would help unearth concepts that demonstrate the unpredictable relations or theories concerning high-quality care provision in Saudi hospitals. Furthermore, this research aims to explore the perceptions of nurses, which can be ascertained through the process of interviews (Craig, 2007).

Interview guide protocol

The researcher created an interview guidance protocol formulated through the identified concepts within the studies, presenting the last question intended to ensure that the interviews would be same in format as feasible for comparison (Jacob and Furgerson, 2012). This protocol allowed the researcher to present the questions consistently throughout for all participants, even though flexibility was maintained to allow for probing, where deemed necessary, by the researcher for each individual interview (DiCicco Bloom and Crabtree, 2006).

Piloting the interview protocol

Pilot interviews assist in identifying design issues with the question format, content and interview procedure, as well as assessing both the reliability and validity of the protocol (DiCicco Bloom and Crabtree, 2006). Moreover, the ability of the researcher is also tested by following the pilot guidance, as they are then able to practice their interview technique. In this instance, two separate pilot interviews were arranged for the current study: one with head nurses and one with a TQM manager (Waltz et al., 2010). The pilot interviews were conducted using the same process that was intended for the full-scale data collection, and the interviewees provided feedback on their understanding of the questions (Kvale 1996). It was a good journey. As this was the first attempt to interview five PhD students at a UK university, I identified three important criteria: firstly, the student must be at PhD level, secondly, the student must have finished their data collection and finally, they should be working on something to do with the healthcare sector in Saudi Arabia. The reason for these conditions was to provide better and more beneficial experiences for both academic and field practice. Details are shown in Table 8 below.

Table 6 Biographical data tables for the pilot interview process in the UK

Category of participants	Location in KSA/UK		Place	Main sector experiences	Gender	Interview length (rounded minutes)
	KSA (<i>Sector</i>)	UK (<i>University</i>)				
TQM managers Public sector	Dammam Central Hospital MOH	MMU	Office	8 Y	M	35
Head nurse Public sector	Al-Noor Hospital MOH	Salford	Office	5 Y	F	90
Hospital manager assistant Private sector	Saudi German hospitals group Jeddah (SGH)	Glasgow Caledonian	Coffee	12 Y	M	44
Head nurse Private sector	Al Mashfa Hospital Jeddah	Wolverhampton	Office	10 Y	F	56
Head nurse Private sector	Al Hayat National Hospital	Salford	Coffee	6 Y	M	61
Total: 5						

The table above provides suitable and anonymous general role and experience data in relation to the five interviewed PhD students, each of whom, at the time of the interviews, was working in public and private healthcare in Saudi Arabia.

Based on this specific sample, what was interesting and potentially significant is that they provided me with very good notes and beneficial feedback. There was a greater diversity of

work experience amongst this sample of students, and so a good amount of aggregated years of experience (40 years) could strengthen confidence in their understanding of the quality of care in the Saudi healthcare sector. The sample was reasonably balanced between the private and public sector, but there were different overviews and perspectives. The most notable comments indicated that time is a very important element in acquiring good information, though this did not necessarily mean that with a lot of time I would reach the data saturation level. The first and third interviews that I transcribed alerted me to *provocative questions*, such as ‘Do you have an idea about TQM?’ This was a useful exercise and a good lesson to learn, especially regarding time management and preparing for the actual interview.

Target population and sample size for stage one

The target population for stage one of this study, the qualitative element, featured staff from public hospitals, specifically those that were knowledgeable about the strategic planning process for overall TQM practice within the institutions as well as being deliverers of the intended quality of care to patients. As such, TQM managers and head nurses were identified as key participants. In addition, as the public healthcare system nationwide was being examined indirectly through the quality of care provision in public hospitals under the remit of the MOH, managers from the said ministry were also sought as key participants in the study. The researcher believed that MOH TQM managers, hospital TQM managers and head nurses would be the most appropriate participants, as they were best placed to shed light on the existing state of TQM practice within their institutions and the wider public health system. These participants would be key pillars of information in addressing the objectives and research questions set for this study (Table 7).

Table 7 Interview sample size map

Locations	Interviews	
	<i>TQM Managers</i>	<i>Head Nurse</i>
Ministry of Health	2	2
King Fahad Medical City (KFMC)	2	2
King Abd-alziz University Hospital (KAUH)	2	2
Total	12	

Particularly, a format is offered by the sampling by which the data can be retrieved suggesting some physiognomies of a set population group, by examining a micro-sample thereof via probability or non-probability (Tillé, 2006). Within quantitative research, with the intention to elevate the generalisability of the research in question, Probability sampling is most frequently used, as it proposes a format for computing sampling discrimination and errors. (Gerrish and Lacey, 2010). Conversely, non-probability sampling, which is commonly implemented within qualitative research, is also broadly defined as purposive or purposeful sampling when selecting people for interviews, because the sample is normally intentionally selected according to the purpose of the study (Gerrish and Lacey, 2010; Salmons, 2011).

Within the context of stage one, namely qualitative, the researcher had little or no control over individuals selected for participation other than through communication with the ethics committee of the MOH, what was advised of the nature of the study and the prospective type of participants required. Appropriate participants were then designated by the MOH and so, in essence, the sample was a convenience sample. Subsequently, individual arrangements were made between the researcher and the designated individuals to meet in mutually agreeable locations for the interviews. In total, 12 persons were interviewed: from the MOH two TQM managers and two head nurses, while from each of the two public hospitals there were two TQM managers and two head nurses (Appendices 8 and 9). The two public hospitals from which the sample was drawn were located in the capital city of Riyadh and were amongst the largest, busiest and most utilised institutions – and thus appropriate for the purposes of this study.

The Qualitative and quality of research

It was Brannen (2005) who detected various complications within the quality criteria for mixed methods research along with the queries we are supposed to work on the current criteria or not or whether we should make up particular criteria. Research, quality concepts; for instance, generalisability, rationality, consistency, and replicability are identified in the quantitative research (Spencer et al., 2003, cited in Brannen, 2005). Brannen detected the widely equivalent concepts for qualitative research in the form of credibility/ trustworthiness, fittingness, and audit ability.

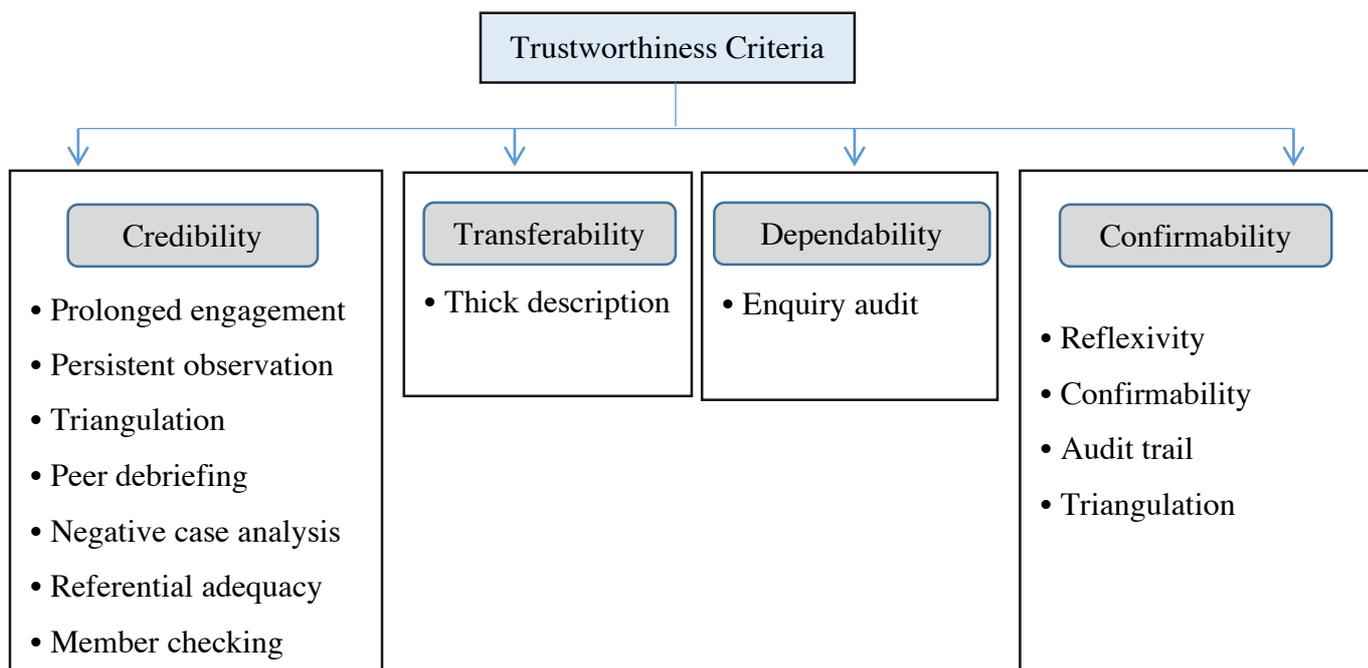
As the quality criteria were recommended by Bryman (2006), the utilized quality criteria probably rely on the supremacy of the qualitative or quantitative approach and kind of data evaluation utilized under the scheme'. In light of this scheme, there is a dominance of the qualitative component and consequently, in the initial evaluation, the main concern will be the quality phenomenon regarding this section of the data.

To understand the research topic more thoroughly, a greater emphasis has been laid on data collection strategies and quality at each step during the process. This chapter defines the range of methods and approaches used to ensure quality.

Ensuring the trustworthiness and Credibility

In the qualitative method as the aim of trustworthiness backs up the argument, special consideration should be given to the enquiry's findings (Lincoln and Guba, 1985). This idea is distinct in comparison to the popular experimental precedent in which validity, soundness and significance are displayed. Credibility, transferability, confirmability, and dependability are the four main points of trustworthiness to be considered in all the qualitative research projects. Assessment of how 'credible' the conceptual interpretation of data obtained from the original data participants in the research findings is credibility (Lincoln and Guba, 1985). Up to what extent the enquiry's findings can be reusable outside the boundaries of the project is transferability. The measurement of the degree to which the collected data matches with the enquiry's findings is confirmability. Assessing the standard of the integrated processes of data collection, data analysis and theory generation is dependability (Lincoln and Guba, 1985). To carry out the qualitative research and obtain the criteria as depicted in Figure 16 a series of techniques is defined by Lincoln and Guba.

Figure 16. Criteria for trustworthiness of qualitative studies (adapted from Lincoln Guba 1985)



The MOH was contacted in order to find related experts specialising in TQM and patient-centred care and possessing at least five years’ experience in the field. IN addition, they should be well aware of the requirements and challenges caused by the unique challenges in the Saudi Arabian healthcare sector workforce. The experts agreed that the interview guide presented by this researcher was more than adequately. One of the main challenges faced with the interview guide was the issue of language.

The native language in Saudi Arabia is Arabic, while English is the professional language within Saudi healthcare system in the country. The researcher was a native Arabic speaker so in interviews in the native language there were no challenges; however, this was not the case with the stage-two quantitative studies.

Member checking (Lincoln and Guba, 1985) with the participants was also addressed, to promote credibility. To address transferability, several of the data analysis documents used to generate the answer to the research question will be detailed in the results chapter. This access to the enquiry’s ‘paper trail’ provided the ability to transfer the conclusions of this enquiry to other cases, or to repeat, as closely as possible, the procedures employed herein.

Reflection on the researcher’s role, exploring negative cases in the analyses and working closely with data can ensure a measure of ongoing trustworthiness. Memos were used to aid reflection on the research process as well as my role in collecting data and conduction research.

Interview data collection

Bryman and Bell (2003) state that “The interview is probably the most widely employed method in qualitative research” (p.141), while related to the flexibility of the method, Denzin and Lincoln (2003) concur that its popularity makes it suitable for a variety of purposes, including social science.

The process for collecting interview data commenced by making arrangements, which included detailing a location and a time and receiving informed consent to undertake the process. From the start, it was decided that the interview setting and time needed to suit the interviewees, although the majority preferred the hospital within their hours of work. Nevertheless, public places, such as coffee shops, do not allow different genders to meet, due to segregation rules in Saudi Arabia (Wilkins 2001, Metcalfe 2007), which resulted in the hospital as the only possible place, as it is common to observe both sexes working or talking together in a professional capacity. Consequently, it was necessary to seek co-operation from the nursing departments to permit the participating nurses to take one hour off for the interviewee, which subsequently resulted in the rescheduling of various appointments, due to workload.

Before commencing the interviews, the researcher verified that the interviewees were actually the individual designated by the MOH and confirmed their names, area of work and, for example, whether they were head of TQM in hospitals, head nurse, etc. The researcher then followed the guidance of Connaway and Powell (2010), Macnee and McCabe (2007) and Nueman (2003) to help avoid bias during the interviews. Firstly, each question was read with the same emphasis, phrasing and tone, which would help avoid the unrealistic alteration of the participants’ responses. Secondly, questions were reworded or omitted, when required, by the interviewees (Nueman, 2003). Thirdly, no answer would be influenced by a reaction of the researcher (Connaway and Powell, 2010).

Throughout the interview, the researcher highlighted themes that seemed to be relevant to the participants and then linked each question for comparative answers to the corresponding notes. The combination of note-taking and tape-recording are useful techniques to enrich and enable analysis of the material as a whole (Fossey et al., 2002). Nevertheless, it is always possible to fail in detailing certain notes, so a recording of the interview always gives the researcher additional time to focus on more of the micro-detail. Following each individual interview, the finishing time was noted and the participant was duly thanked. These interviews were subsequently saved through secure passwords to a personal laptop and a portable hard disc, and the digital interview.

Interview analysis

Initially, the interviews records were sent to two translating and transcribing agents to convert the recordings into a formal text format, which would provide an accurate account of the interviews and allow for comparison with the transcripts. Moreover, the researcher tested validity by sending the interviewees the transcript, to ascertain whether what was stated was a correct reflection of the meeting (Klenke, 2008). Indeed, it had been felt that, due to some nurses not speaking English or Arabic as a native tongue (i.e. Indian or Filipino), data could be lost through a lack of expression or misunderstanding of meaning in the questions. Post-translation and transcription, the interview analysis commenced through an analysis of qualitative guidance for the semi-structured interviews (Creswell, 2013).

Researcher then began in-depth reading to help understand, which included organising the findings into specific groupings of text to help distinguish deeper meaning (Creswell, 2013). Coding is useful in this regard, as it helps transfer data into a comprehensible form through linking data concepts or themes that the researcher can evaluate for further use (Coffey and Atkinson, 1996). Therefore, it is possible to understand new facts and create evidential theory from data that have been broken down and termed into varied levels of abstraction (Basil, 2003).

Next undertaking that understand significance for themes involved, which completed reassessing transcripts of the interviews and deducing the central phases of every interview. Hence, the researcher created an Excel spreadsheet to provide a more concise understanding. Similarly, the researcher followed recommendations from certain other researchers to ensure the accurate interpretation of data, which depends upon accurate translations through listening to the recordings and reading the transcripts (DiCicco-Bloom and Crabtree, 2006; Macnee and McCabe, 2007; Miles, 1979). These included changes to answers and showing that transcription and translation are necessary within precise interpretations (Connaway and Powell, 2010; Macnee and McCabe, 2007; Nueman, 2003).

The literature review for theoretical background combine with the knowledge and experience of the researcher in interpreting results (Macnee and McCabe, 2007). Furthermore, the researcher receives participant feedback in relation to their own interpretation of the findings and data, in order to compare with the interpretation of the researcher (Miles, 1979). This reflexive approach helped authenticate the findings in the present study and helped distinguish participants' voices from that of the researcher as well as enhance the permeability of the researcher's role (Fossey et al., 2002). Subsequently, following the evaluative combination of the researcher and the participant regarding the data analysis, two separate interviewees were

contacted and asked to review the findings from the data analysis from their own interviews, which would assist in showing whether the researcher's interpretation of the interviews would match their version of events. This strategy, often referred to as 'member checks', increases the transparency or validity of the research (Fossey et al., 2002, Patton 2005).

Framework Analysis

According to Smith and Firth (2011), three types of approaches can be used when undertaking qualitative analysis: (1) socio-linguistic methods that seek to explore the use and meaning of language (e.g. discourse and conventional analysis), (2) methods that focus on the development of a theory (e.g. grounded theory approach) and (3) methods that seek to describe and interpret participants' views (e.g. content analysis or thematic analysis) (Smith and Firth, 2011). There are three interconnected stages within the framework approach, which ensures that the process of data analysis is transparent and facilitates a constant refinement of themes and, ultimately, the development of a relevant conceptual framework (Smith and Firth, 2011): (1) data management, using a case- and theme-based approach, (2) identifying and testing a thematic framework and (3) the development of descriptive and explanatory accounts (Smith and Firth, 2011).

According to Ritchie and Lewis (2003), a qualitative analysis framework is used to organise and manage research by defining the process of summarising results in a robust and flexible matrix output that will enable analysis based on a case or a theme. Smith and Firth (2011) articulate that three frameworks can be applied in qualitative data analysis: thematic, case and thematic. According to Ellis (2010), the thematic framework is commonly used in a wide range of studies that have complex bodies of evidence. It is also the most appropriate framework applicable when dealing with the synthesis of text-based evidence (Smith and Firth, 2011). A thematic framework identifies the main, recurrent and most important issues identified as themes arising from the body of collected evidence (Ritchie and Lewis, 2003). This framework also reflects the main ideas and conclusions across a body of evidence and looks for what is prominent (Smith and Firth, 2011).

Thematic framework analysis provides robust and flexible matrix results or outputs that offer the opportunity to analyse further data according to both case and theme (Tobin and Begley, 2004). There is flexibility in the analysis process, which allows the researcher to either collect all the data and then analyse them at the end of the data collection or conduct analyses during the process of data collection (Srivastava and Thompson 2009). Thematic analysis provides a means of organising and summarising the findings from a large body of research, thus fitting

the needs of most researchers in areas such as health research, policy development and programme evaluation (Gale et al., 2013; Dowrick et al., 2009). The thematic analysis framework can also be used by both qualitative and quantitative studies, and so it can be applied in research involving both circumstances (Tobin and Begley, 2004). Based on its strength and relevance, it was suitable to apply in this study. The following diagram, adopted from NatCen Learning (2012), describes thematic analysis.

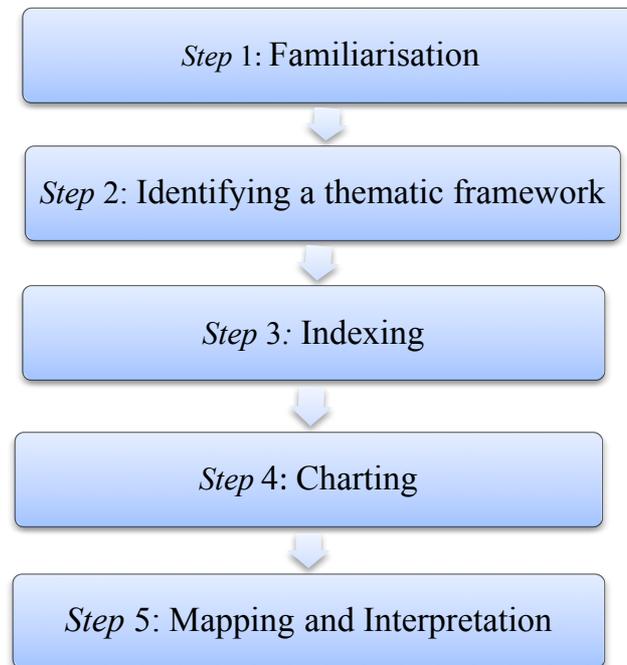


Figure 17. Stages of analysis for the interview process (Ritchie and Spencer, 2002).

Framework analysis adoption for this study

To analyse qualitative data from the interviews, this study adopted Braun and Clark's (2006) six-phase procedure. The researcher chose this approach because it offered a clearly phased way of analysing qualitative data, the process is analytical, enabling the validation of themes, and it is not sophisticated.

Data familiarisation

The researcher immersed himself in the data to learn about the underlying responses by listening and re-listening to recorded interviews and taking notes (transcribing) again in an active way, in order to develop depth and breadth to understanding the content. The active, repeated approach aimed at identifying meanings, patterns and so on (Wengraf, 2001). Even though this was tedious, the researcher was careful not to ignore or skip essential facts. The researcher also considered the primary message, attitudes of the respondents, whether content

referred to individual or groups and the degree of the response, i.e. hypothetical or actual in terms of experience (Polit, 2010).

Developing initial codes

Having gained a comprehensive insight into the data, the researcher generated an initial list of semantics that had a meaningful association with this study's research questions. Coding involves analysing and sorting data into groups that are meaningful to the study (Baum and Clark, 2006). The analysed themes were broad at this stage and the process was done manually. This was achieved by noting the themes in the margins of the transcripts, in an attempt to point out key information. Although the researcher was aware of potential issues, a prior conscious effort was made not to let this awareness dictate the emerging themes being drawn from the interview data (Srivastava and Thompson, 2009).

Searching for themes

From the initial codes, the study started to collate all the relevant codes, analysing them and establishing how they combine to create overarching themes. Using tables, the collated codes were reorganised into main themes and sub-themes. At this stage, a significant sense of individual themes started to develop, but it was uncertain if they would match the research's interests (Baum and Clark, 2006).

Reviewing themes

The candidate themes were subjected to a two-level review analysis. The first level was an analysis of each collated theme, to establish if it had coherent patterns or had collapsed under other themes or been discarded. For the second level, only for those themes that did not fit were reworked to develop new themes (Baum and Clarke, 2006). The researcher found this stage essential in establishing the validity of the developed themes.

Defining and naming themes

In this stage, the researcher refined the specific themes by examining the main themes and their sub-themes in connection with the overall story they told. The thorough specifics resulted in defining names for each theme, thereby helping to identify what they represented and what they did not. Baum and Clarke (2006) outline clearly that theme defining needs to be concise and should offer an immediate impression to the reader about what the theme involves.

Producing a report

This entailed the extraction of concise examples that offered vivid and compelling insights into the findings. The extracts at this stage focused on addressing the research question and the literature in a bid to establish a scholarly report (Baum and Clarke, 2006). The significance of

the examples involved telling a story to the reader in a convincing way that would merit the validity of this report.

Phase two: quantitative methods

Assumptions made by quantitative purists are usually in relation to the positivist worldview or paradigm where they concentrated on assessing the relation among variables for testing theory (Creswell, 2013). Quantitative purists consider social observations in a way similar to the approach of physical scientists, in the way they conceive physical phenomena, where they emphasise on a single objective based on reality or truth. Positivist paradigm entirely is based on the view that there is a pattern and regularity in human behaviour. Positivists view this in terms of the laws of cause and effect and with the assistance of measurable data gathered through highly standardised tools like questionnaires with precisely worded questions are used to explain human behaviour (Neuman 2014).

Hard data as numbers is collected for the quantitative methodologies with the emphasis on data collection techniques, to gather information to be shown in quantitative form (Neuman 2014). Cohen, Manion and Morrison (2013), stated that the quantitative research looks for law-like regularities and principles that true in any given time and situations. In order to quantify social phenomena, that is collecting and analysing numerical data, qualitative methodologies emphasises on the relation among fewer number of attributes across various cases (Bryman and Bell, 2015; Neuman, 2014).

Advantages and disadvantages of quantitative methods

The researcher was aided in the exploration into specific human characteristics within groups by utilising various instruments, which produced results that could be generalised to a larger scaled population. The research is provided with more quantitative evidence using combined instruments, while this also creates additional opportunities that help examine and analyse characteristics that humans possess. Indeed, as repeated data are capable of measuring different moments in time, the quantitative approach becomes valid, although the current investigation provided a specific image of the contextual phenomenon through its cross-sectional base.

One of the tools used was a questionnaire, which is “an efficient tool in terms of research effort, [as] it saves research time during data collection and analysis, which can be factored in at the planning stage, and is low cost” (Dörnyei, 2003: p. 6). This also has the added advantage of involving a greater amount of participants over a wider area (Babbie and Mouton, 2001; Fowler, 2002). Nevertheless, utilising questionnaires in the quantitative process commonly

fails to present deeper insights, which interviews or focus groups (qualitative approaches) can produce (Fossey et al., 2002, Creswell 2013).

Sources influencing the questionnaire design

A questionnaire requires the consideration of certain factors and recommendations, which can prove challenging to construct and vary in relation to different researchers (Burns and Bush, 2014; Carter and Thomas, 1997). For instance, one study has demonstrated the diverse steps that are needed for the construction of a questionnaire before the production of a draft copy, incorporating: decisions on the format and relevance of questions, differences between structured and unstructured questions, sequencing of questions and the selection of respondents (Bajpai, 2011). Additional steps will be stated as necessary in the process, to ensure consistent clarity of the research questions, as well as required information in comparison to the questions on the questionnaire (Burns and Bush, 2014).

Nonetheless, a researcher has to restrict any issues that might arise from cultural variations, especially in a study which can bring the conglomeration of cultures together and can therefore prove challenging when constructing a balanced and universal questionnaire (Gaag and Rijksuniversiteit, 2005). Similarly, a full insight into the meaning and relevance of the chosen questions needs to be understood (Burns and Bush, 2014). Hence, it is imperative before selecting the questions that one solitary questionnaire cannot incorporate all the possible questions and answers, because to use everything that could be relative would increase the completion time excessively (Bajpai, 2011).

The researcher must also evaluate the participants' demographics prior to designing the questionnaire, as this may uncover additional information that could prove useful to the research (Bajpai, 2011). It is then necessary to organise the questions into major and sub-questions, alongside providing clarity through the structure (Burns and Bush, 2014). There are limitations through closed-ended questions, as all the possible alternative questions and answers from a respondent fail to be included (Bajpai, 2011). Consequently, it is shown that a beneficial questionnaire could take anywhere between 10 and 50 hours to complete, which can also include an additional pilot study, a review of the questionnaire and editing (Burns and Bush, 2014).

Target population and sample size for stage two

The target population for this stage of the research included direct deliverers of hospital care to patients, namely nurses, as well as patients receiving the service, as their evaluation would be important in assessing the success of systems such as TQM and output in terms of quality

of healthcare provision and/or care. Since this phase of the research was deemed supplementary to stage one, with this stage assuming greater importance, the study's researcher deemed on a sample size of approximately 300 nurses and 400 patients. Nevertheless, the only respondents that replied back to the researcher were 120 nurses from KFMC, 100 nurses from KAUH, 200 patients from KFMC and 150 from KAUH. In total, responses were gathered from 220 nurses and 350 patients from both hospitals.

Table 8 Inclusion and exclusion criteria for stage two

Nurse		Patient	
<i>Inclusion Criteria</i>	<i>Exclusion Criteria</i>	<i>Inclusion Criteria</i>	<i>Exclusion Criteria</i>
<ul style="list-style-type: none"> • Working as a registered nurse • Minimum two years' experience in the hospital • Working as a practice nurse in the clinic 	<ul style="list-style-type: none"> • Training or visiting • Less than two years' experience in the hospital as a nurse • Working in the managerial side 	<ul style="list-style-type: none"> • Inpatient or outpatient participant • Inside the hospital building as currently attending 	<ul style="list-style-type: none"> • Visitor • Patient relatives and assistants • Patients coming for home care department

Using the Likert scale

It is possible to use both open- and closed-ended questions within a questionnaire, although the current study utilised closed-end questions only. Three individual approaches exist with formulating closed-ended questions.

The aim of Likert was for respondent's statements to provide various strains of similar or contrasting attitude dynamics by evaluating the rate of agreement on a scale dependent on the set research objectives and a 5-point scale (Brace, 2013). Moreover, the Likert scale was designed around simple responses, as the questions are not asked to analyse any degree of complexity in attitude or measured beliefs from respondents, but to focus on generic meanings between the same presented statements, thereby covering specific issues more precisely (Michie, 2001). Likewise, the Likert scale provides a base that is easy to construct, takes less time and helps measure reliability acutely (McClellan, 2012). In contrast, the Thurston scale permits answers to be directed away from the actual topic under review (Brace, 2013).

Overall, the Likert scale is necessary for the present study, namely specifically to identify the quality measurement requirements needed and issues required that reflect the complexity of Saudi hospitals, as well as requiring clarity and definitive answers in relation to learning needs and barriers in the implementation of TQM or its prioritisation. Furthermore, confidence levels and self-efficacy regarding current levels of healthcare that need to be measured by the Likert scale; help reflect a participant's own self-assessment, in order to determine their own judgement of ability (Michie, 2001). Indeed, the Likert scale presents greater reliability, as a greater percentage of useful answers will be obtained by participants (Oppenheim, 1992).

Five-point Likert scale

There are contrasting Likert scales, and so to implement them within a study, it is necessary to understand their individual appropriateness. Consequently, the questionnaire for the present research rejected the 3, 7 and 9-point scales in favour of the 5-point option, because the latter example creates more reliability for separate levels of respondents. Conversely, the 3-point scale does not suffice in discriminating among agreement levels (Gracht, 2008). In the current study, the researcher adhered to the recommendation to set a clearly definable midpoint in the Likert scale, focusing on using a point set as 'moderately important' instead of the number '3' (Tsange, 2012).

Panel back and the translation reverse

Committee that was fluent in both Arabic and English was utilised in reverse translation, or panel back-translation, which consisted of different translators who were able to perform the forward translation procedure. Moreover, a paediatrician, who had acquired adequate experience in healthcare practice, was also included. Additionally, an individual schoolteacher joined the panel and checked the accuracy of the questionnaire translations in cross-reference to the originals, as he was fluent in both languages.

Instrument validity

Research instrument validity is vital, as effective analysis is permitted in relation to the collated information, as well as evaluating the study's usefulness and value (Liljenquist, 2010). Hence, the selected instrument providing measurements of the intended research objectives is defined as validity (Polit and Beck, 2008). It can also be split into two different forms: external, which refers to the extent that an independent variable results in the causes and influences dependent variables (Polit and Beck 2008), and internal, which refers to what reinforces the general meaning, which can often be fulfilled through the maintenance of sample representation

(Metzger and Wu, 2008; Bannigan and Watson, 2009). Separately, the contents of instruments are demonstrated through both face validity and content validity.

Pre-piloting test phase

Prior to conducting the research, readability was analysed together with the overall extent to which Saudi nurses would accept the tools in their translated formats (Bonomi et al., 1996). One week prior to the informal interview, postgraduate nurses were provided with the Arabic and back-translated versions, to read them thoroughly. This involved using a group of nursing postgraduates studying in the UK (two males and four females), as their similar characteristics to the Saudi nursing population made them highly beneficial for comparison, while certain members of the six had worked at the proposed sites in the research. Indeed, previous studies had used similar group dynamics to test constructed analytical tools (Eremenco et al., 2005). When even a minimal discrepancy was uncovered between the translations, a new and independent translator was hired to recheck the process, which was repeated until a valid translated version was produced.

Overall, various minimal amendments to the document were required, in order to function with Saudi cultural norms, which would ultimately aid the ability of the nurses to answer questions from a perspective on their own beliefs. Furthermore, Appendices 8 and 9 present the questionnaire's final version that was produced following the changes. What is more, it is important to state that the information acquired in the pre-testing phases was not analysed statistically.

Language together with non-English speakers

In this phase, the questionnaire was initially offered in Arabic and English, as the majority of patients spoke Arabic as their native language. Hence, it became necessary prior to commencing the study that the translation should be conducted professionally and correctly, in order to produce unambiguous meanings. The questionnaire sheet was sent to the MOH's research centre and to King Saud University, to be translated and re-translated again after the first round of corrections, as well as an English colleague who checked the final English grammar and format, which collectively helped to produce a fully correct and translated document. (Appendices 8 and 9 for both questionnaires versions)

The fact being that majority of the healthcare workers are not natives of Saudi Arabia and are expatriates from other countries (Abuol-Enein,2002; Tumulty,2001), therefore the formal language used for communication within health team members is English in hospitals of Saudi Arabia. The questionnaires thus given to nurses were the original versions of English-language.

In medicine the language of instruction is English. Moreover, in Saudi Arabia a registration with Saudi Commission for Health Specialties (SCHS) is compulsory for the nurses and health sciences. Examinations in English are conducted for the candidates by SCHS, to guarantee the level of proficiency and capability to provide safe and contemporary nursing services (Saudi Commission for Health Specialties, 2014). The two systems followed by the administration are American or British system. Therefore, nurses who are to work in Saudi Arabia should be proficient in English.

Content validity report

Content validity has been shown to encompass the existence of a strong connection between a study's utilised content and the investigated variables (WHO, 2007). A content validity report describes how the research instrument has been applied appropriately to the sample of items it is measuring and how it adequately represents the domain of content addressed by the study (Polit and Beck, 2006). Computing a content validity index (CVI) requires content experts to apply ratings on items' relevance. Polit and Beck's (2006) study on how nurses use and calculate CVI suggests that item-level CVIs (I-CVIs) are common and that calculation takes two approaches: universal agreement among experts or averaging the I-CVIs.

In this study, the content validity of the nurse and patient questionnaires was examined prior to the data being collected from the participants. Four different PhD holders were designated experts for rating each questionnaire item. The ratings featured 'strongly agree' to 'strongly disagree' in terms of inclusion and relevance in the nurse and patient questionnaires. These ratings aligned with the aim and objectives of the study. The researcher made corrections to questionnaire items identified with low rates.

Content validity analysis was carried out during the summing process of I-CVI results as percentages to be further divided by the total number of items in each and every questionnaire. The level of representation and clarity in findings was subsequently of high standard due to the analysis, therefore a representativeness was reporting score (RCVI) which 89% a clear score (C-CVI) of 91% was obtained. Agreement among members of the panel can be perceived when keeping in mind the two scores. Accordingly, their comments were useful in helping in the provision of a greater perspective regarding the translation process that led to the process of validation, which was a third version of the Arabic patient questionnaire.

Reliability of the scales

Inter-rater reliability was measured for each nurse and patient. A sample of 55 patients and 42 nurses completed the questionnaire two times, at a baseline time and then one week later. This

sample was not included in the analysis of the main results. For the purpose of examining the correlation between the two expert ratings, a person correlation test was utilised. Inter-rater reliability scores for each question were between 0.79 and 0.8, thereby indicating good inter-rater reliability.

The reliability of each questionnaire was examined. Internal consistency reliability was checked for each subscale (i.e. each group of items that represented a factor was checked for reliability). Each subscale for both nurses and patients had a Cronbach's alpha score between 0.81 and 0.92, indicating the acceptable reliability of each subscale.

Questionnaire data analysis

The data analysis guidelines used from Creswell and Clark (2011) were undertaken directly post-completion of the questionnaires. Moreover, advice was sought from an expert in International Business Machines (IBM) using SPSS statistician software, who worked within the UK, in order to provide a more accurate the process of data analysis, which subsequently been reviewed another SPSS statistician, who worked independently. In the initial stage, numerical codes were assigned to the data, which were then placed into a codebook by the researcher, while data from the questionnaire were entered into the statistical software package SPSS v.20. Following this, the data were ready to be examined, once they had been processed and coded through SPSS.

The researcher aimed to achieve descriptive statistics and thus present raw data, which can be converted into an easily interpreted form, as the aim was to define specific variables in order to test between them, as it this way does not looking for analyse such as a correlations or hypotheses or correlations, or change the objectives of the study. Hence, through calculating averages, as well as percentages and frequency distributions, these aims become achievable (Zikmund, 1994).

Following on from this, the means of distribution were identified, which involved defining the average distribution score by dividing the overall combined scores by the amount of individual scores (Healey, 2007). Therefore, a large sample from the population could be defined from the evaluated data, as the results became more balanced, which provided an estimate of base population tendencies (Howell et al., 2014; Macfie and Nufrio, 2005).

Following this, a Chi-squared test for independence test were conducted to test statistically significant and make inferences from the results. This test analyses ordinal or scale data in order to test and evaluate the differences between central tendencies that exist between two unpaired or unrelated groups (Hawkins, 2014). They can be used in relation to nurses' ages and

experience at a professional level, as with the current research, where the sample was utilised to establish whether the findings could be averaged to a greater population. The overall differences that were found between responses were measured, as well as the subjects of knowledge, comprehension and potential improvements. Moreover, the two medical sites were measured to analyse the differences in understanding and to check whether TQM may contribute in the provision of improved healthcare, thereby identifying learning needs, potential improvement areas and barriers within groups. Indeed, the results of the rank testing or the utilisation of observations instead of numerical value evaluation have been shown to enhance behavioural and research studies for educational purposes (Kirk, 2008).

Ethical approval

The study required approval of ethical from the Salford University, as well as Saudi MOH, prior to commencing any research work. Accordingly, it is mandatory practice for any individual wishing to undertake research or to collect personal data in a hospital environment within Saudi Arabia to apply for ethical approval from the MOH's ethics committee. Hence, an application was submitted to the MOH before embarking on the study, which included an overview of the intended participants as well as a note on the intended region. The application was approved by the committee at the MOH, on the one condition that ethics approval was received from and evidenced by the University of Salford (see Appendix 18).

The Committee for Health and Social Care Research and Innovation Committee (CHSCRIC), together with the PGR College of Health and Social Care Research Ethics Committee at the University of Salford, are bodies delegated the responsibility for all staff members in regards to ethics. Initially, the proposal had to go through various iterations between the period of January and June 2014, prior to the final draft completion. Furthermore, academic supervisors provided advice, as well as researchers, who had undertaken work of a similar nature, in order to ensure that the study's aims and objectives were adhered to through the methodology. Subsequently, the Salford University Research, Innovation and Academic Engagement Ethical Approval Panel, after reviewing the entire proposal, provided confirmation that a meeting would take place on April 10, 2013, for formal acceptance (please see Appendix 17).

Ethical considerations

Cooper and Schindler (2008:34) define ethics as the "norms or standards of behaviour that guide moral choices about our behaviour and our relationship with others." Subsequently, ethical considerations will then have made for measuring data collection through the study guidance of Long and Johnson (2007), MOH (2012b) and RCN Research Ethics (2009), whilst an information sheet documenting confidentiality, harm, privacy and risk as vital ethical

considerations must be sent to all participants. Furthermore, data confidentiality must comply with the Data Protection Act (1998).

For interviews, it is imperative to consider the four main responsibilities: 1) confidentiality, 2), consent, 3) anonymity and 4) organisation permission. The last responsibility was the hardest stage, especially initially when attempting to access the hospitals and the MOH through their own gatekeepers. The interviews maintained the privacy of the participants, unless an individual provided authorisation beforehand. Hence, ensure interview anonymity, and divulged personal information would not be disclosed to another party aside from the researcher. Additionally, the researcher would keep the data safe on a password-protected hard drive at the University of Salford in the UK. Only demographic data would be obtained, as personal information would not be requested, as the information sheet stated that the research would only use findings for academic purposes. Moreover, the questionnaire was distributed in an envelope that the participating nurse could use to return the questionnaire within two weeks of receipt.

For an individual to be considered as consenting to participation, the return of a completed questionnaire would deem willingness, as detailed on the information sheet. Nevertheless, the nurses, in order to ensure anonymity, which was again stated on the information sheet. Likewise, a signed consent form was required for interview participation, representing informed comprehension of the research. This information sheet also stated that the participant could ask questions and withdraw from the research process without providing a reason. The researcher retained the original form, whereas each respondent was provided with a copy (see Appendix 11) of both the informed consent form and the information sheet.

The possibility of risk and harm occurring from the research was also considered, as undue stress or refusal to speak during an interview could result in the need to pause or abandon the interview in the first stage. Thus, the researcher was required to detail fully the nature of the research as well as confidentiality. What is more, in Saudi Arabia, a woman is prevented from remaining alone with unfamiliar males, due to religious and cultural tradition, which means that the current study allowed female participants to be interviewed by a person with whom they felt totally comfortable (Tumulty, 2001).

Questionnaire data collection

For the collection of all the questionnaires, a confidential box was prepared within each hospital, details of which were detailed on the information sheet. Indeed, to emphasise the process of confidentiality, the researcher was the only person with access to the secure boxes.

Integration of quantitative and qualitative analysis

The current study used semi-structured interviews as the relevant tool to explore the perceptions of nurses and managers about how to establish high-quality patient care. Data collected from these interviews would complement the data collected from the quantitative part of the study, to increase the reliability and accuracy of the current project's results and recommendations. Based on the selected design, the integration stage can be found in the beginning of discussion chapter of this thesis.

The whole dataset was combined to inform each of the themes: nurse and patients' experiences of and perspectives on how TQM may contribute to providing high-quality care, as well as improvement factors influencing nurses' roles in the healthcare sector.

Diagram (18) provides an overview of the data collection and analysis processes.

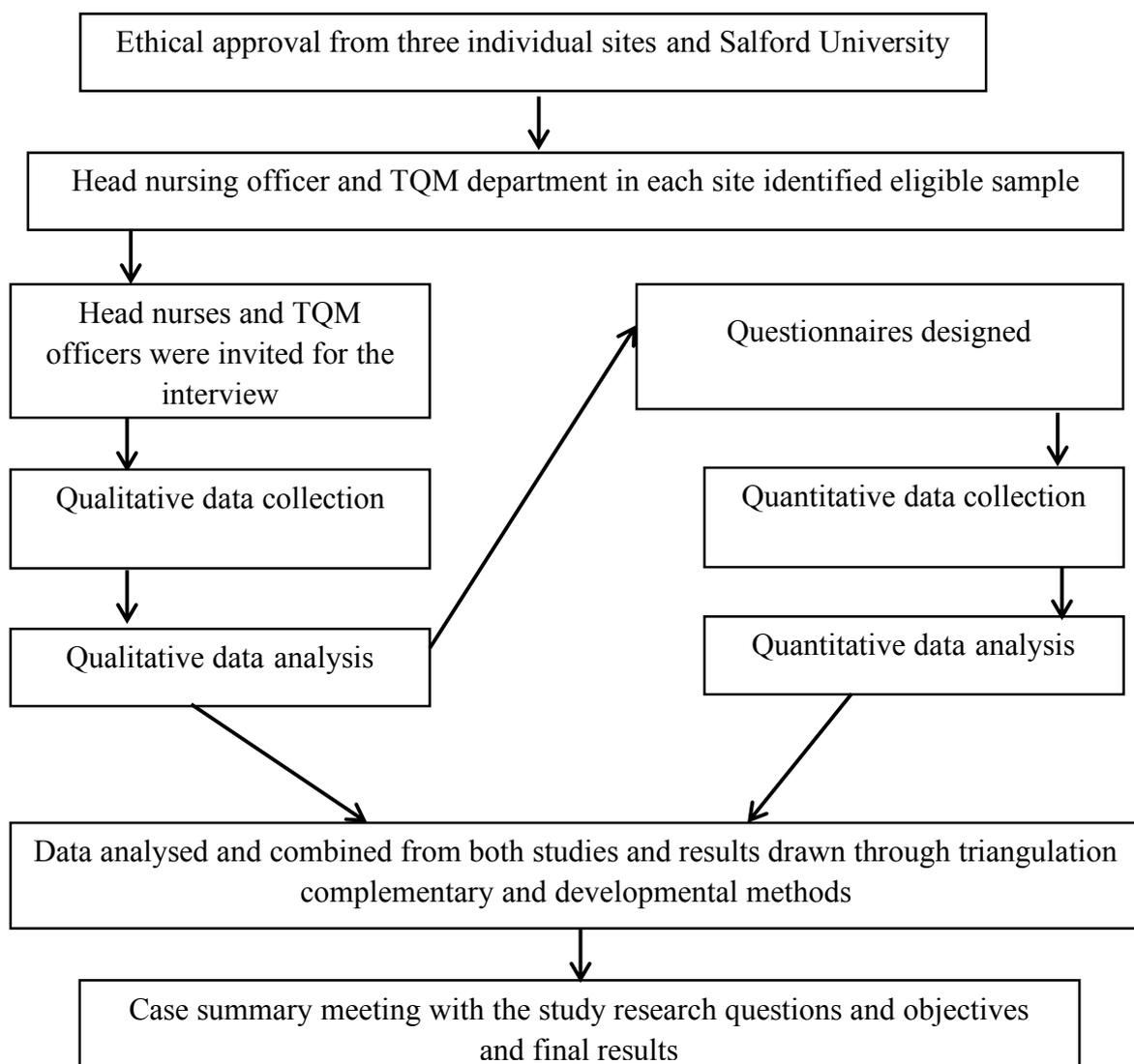


Figure 18. Data collection and analysis processes

Mixed methods analysis

The mixed methods analysis started by understanding the questionnaires that had been completed, aligned with the findings of the interviews, so that links and connections could be ascertained in relation to the research objectives (Bryman and Bell, 2015; Creswell, 2013). The study then structured four different categories from the findings, with each individual category focusing on the results of one particular objective. Subsequently, the findings from the qualitative data were all compared and contrasted, in order to highlight any potential discrepancies, which led to the final discussion of the data in the following chapter.

The themes of the findings and their relevant discussions were grouped into respective groups, as through the varied structure of objectives, different themes were highlighted. Likewise, the current study was required to refer to additional literature, theories and evidence through the data discussion, in order to assess the other TQM models and the selected theoretical framework, which needed to detail the link between the findings and the aim of the research (Creswell, 2013).

Conclusion

A basic structure of the research methodology used for the research is given in this chapter. Pragmatism philosophy is believed to be perfect for the research as it includes the objective as well as the subjective results. To meet up with the philosophy requirements an inductive approach was taken. The best methodological selection is considered to be the mixed methods exploratory sequential design approach, to obtain qualitative as well as quantitative results for studying the current TQM practice in Saudi public hospitals, in order to acquire better efficiency and productivity.

Thematic analysis and statistical analysis, in which interviews and questionnaires were used, are the two data collection techniques. The current frameworks of the mixed method research field were primarily used for the research. The principles of mixed methods research is followed in the study, which is used to discover the correct results as given in the next chapter.

CHAPTER FIVE: DATA ANALYSIS AND FINDINGS

Introduction

This chapter aims to presents the data analysis review of the data analysis from both quantitative and qualitative finding form both stage one and stage two. The findings stem from the data collection that carried out from semi-structured interviews with 12 staff members (six TQM managers and six head nurses) from the MOH and from two hospitals in Saudi Arabia and accounts for stage one.

Demographic profiles of the participants

The current study comprised two separate and distinct groupings in relation to understanding how TQM is implemented in Saudi Arabian hospitals: head nurses and TQM managers. Additionally, it needs to be noted once again, as in the methodology chapter, that nurse managers were only able to participate in the interviews, whereas staff nurses could participate in the questionnaire. In relation to the interviews, six nurse's managers were finally selected from the initial responses. From these six, two were from the MOH and two each from either hospital. Similarly, six TQM managers were chosen to participate, comprising two from the MOH and two each from either hospital. Additionally, certain reasons restricted the feasibility of conducting interviews within professions in Saudi Arabia.

Table 9 Demographic profiles of the participants

Category of participants	Size sample	Experiences/Y	Position	Location
TQM managers	2	7 Years 12 Years	Head of TQM department	MOH
TQM managers	4	5 Years 7 Years	Head of TQM department	KFMC
		4 Years 5 Years		KAUH
Head nurse	2	6 Years 8 Years	Head of nursing department	MOH
Head nurse	4	3 Years	Head of nursing department	KFMC
		4 Years		KAUH
Total: 12				

Firstly, it can make Saudi managers uneasy when assessing the performance levels of staff and the organisation of an establishment, such as TQM in healthcare. Secondly, the majority of Saudi nurses perceive there to be a lack of free speech and are consequently nervous of stating their true opinions (Cordesman, 2003). Thirdly, many Saudi nurses believe that their comments will not necessarily be taken into consideration and that they could possibly be ridiculed for their opinion. Therefore, this was seen as a possible reason why not all of the invitations were responded to.

Approach of the selection codes

Charmaz (2014) recommends a less formalised approach of reflecting on categories and sub-categories (focused coding), and establishing connecting links between these, to make sense of interview data. This method offers considerable freedom and flexibility, whilst at the same time it provides a clear sense of direction for identifying “which initial codes make the most analysis

sense to categorise your data incisively and completely” (Charmaz 2006:57). Thus, for Charmaz, codes and categories reflect the emerging ideas that helped the researcher to examine and re-examine the data and construct an analysis thereof rather than merely provide a description. Through this notion, Charmaz recognised the need to move towards a conceptual rendering of the data while using a simpler framework analysis, thus matching Ritchie and Spencer (2002) in the previous methodology chapter.

Therefore, I based my coding analysis on Charmaz’s (2006) two-stage model of open and focused or selective coding, which uses a less restrictive way of making comparisons between data. Charmaz (2006:178) states that the “researcher constructs their respective product from the fabric of interactions, both witnessed and lived,” thereby advocating a constructivist approach in which the direction of the analysis is “influenced by the researcher’s interpretation.”

Manual data coding

The data were coded manually, and it was noted that coding schemes emerged inductively, following the acquisition of data, and deductively, following concerns and questions that pre-existed in knowledge on the topic (Seale, 2004). It was determined that researchers need to read data transcripts, in order to search for incidents and facts that are subsequently coded with a specific phrase or word (Coyne and Cowely, 2006). Moreover, it has been described that this process moves between transcripts, whereby the participants also assign meaning to the experience (Coffey and Atkinson, 1996; Blaikie, 2000). The current research was initiated by implementing and advancing a manual coding index, as certain processes were adhered to (Charmaz and Mitchell, 2001). In particular, all the transcripts were reviewed, while labels were assigned to potentially significant component parts, which created constellations of words and statements that were based on the main focus (Graneheim and Lundman, 2004).

These codes were then utilised to stipulate the meaning of every data section in a more descriptive form. What is more, instead of using line by coding, selective data coding was chosen (Coyne and Cowely, 2006), as it has been stated that each piece’s data analysis is not always practical (Glaser, 1978). Accordingly, line coding is argued to consist of mundane behaviour observations and thus is not relevant for data (Charmaz and Mitchell, 2001).

Sensitising concepts

Sensitizing concepts was defined by Charmaz (2003) as those concepts that communicate the research problem as a whole. Furthermore, it was also specified by the author that sensitising concepts indicated the ways of seeing, organising and understanding experiences enclosed within our perspectival inclination and disciplinary emphasis. Sensitizing concepts can be used

as the points of departure from which to study data (Charmaz 2003:259). Researchers may get an insight to few significant aspects through sensitizing concepts (Gilgum, 2002). However, the existence of the sensitizing concept is reliant on on the path of the data; moreover, they may be supplemented or changed completely with these emergent concepts (Padgett, 2004:301). Sensitizing concepts were utilized for laying the basis for the study of the research data. According to Charmaz this general sense of reference and awareness will make the researchers informed regarding certain possibilities and processes in their data (Charmaz, 2006: p.16).

Theoretical sensitivity

Schreiber (2001, p.60) describes that the researcher's personal thoughts is a vital filter which filters the data, besides most researchers are very adaptive to theoretical possibilities that a data set may hold, and this ability needs to be nurtured. Theoretical sensitivity is the process of inspiring the researcher's preferences and personal thoughts against the data obtained from the participants, in order to make sure that the emergent theory remains intact with the participants' data (Schreiber, 2001). Schreiber (2001, p60) further describes that with theoretical sensitivity, researcher is able to have an inductive thought process and is able to jump from the specific data to the general or abstract, which means to construct theory from observations of specifics. Theoretical sensitivity was used throughout the research due to it being a reflective process. This was demonstrated in the memos and journal entries and alerted me on what is going to be the outcome of the data. By recognizing the beliefs, a more clear view of the data was now visible. In my pledge to cultivate theoretical sensitivity, it was essential that I regularly hold meetings and brainstorming sessions for the ideas developing from the writing or coding in the projects. All possible explanations of the trends in the data were explored through these important discussions, which alternatively helped me in safeguarding against my own ideas that had an impact on the theory.

Saturation of data

Charmaz argues that saturation is "an elastic category that contracts and expands to suit the researcher's definition rather than any consensual standard" (Charmaz, 2001:689-690). It is therefore important to clarify how decisions were made in this regarding sampling strategy and saturation. As far as possible, a theoretically driven approach to recruitment and data collection was taken (Charmaz, 2006), but it was also necessary to make preliminary calculations of sample size, in order to pan the study. Creswell (2007) suggests that 20-30 interviews often provide sufficient data for research, and on this basis, an initial target was set at approximately 15 interviewees. At this stage, 12 participants were recruited for this study. This would be my

saturation point, namely when data gathering provided enough depth, diversity and detail to offer the potential for developing a “comprehensive and convincing theory” (Morse 1995, p148). Stages of coding were not always likely to be linear, while some codes were time consuming and needed more commitment for acquiring the data. Charmaz states that consideration is to be given to the occurrence of the scene. In coding, data is to be sorted and labelled according to the segment, for giving a short description of the segment (Charmaz, 2006).

Definition of the terms

Charmaz explains the coding process by which segments of data are labelled with names that will categorize, summarize, and account for any given chunk of data (Charmaz, 2006:43). Codes are a vital component in order to develop theory from the data, where it represents a unit of meaning and points out to ideas that are indicated from the data (Charmaz, 2006). Line-by-line and focused coding are used for this research. The basic thought of both the coding is same, the coding however, proceeds with increasing level of abstraction, at first low-level concepts that are closer to data are identified, then proceeding towards higher-level concepts, which are termed as ‘categories’, and they give theoretical insights into greater segments of the data (Charmaz 2006). Two terms are used during the study named as ‘code’ and ‘category’. Charmaz has distinguished between codes and concepts by stating that a code that is identified conceptually is a concept, which signifies that it is then part of the researcher’s bigger theoretical framework where the researcher specifies conditions and gives descriptions (1990:1168). While conceptualizing the term initially it is to be determined that in the data, it reveals a vital issue or process, then adding it for future data collection (p1169). An analytical process namely constant comparison is used to convert the code into a concept.

Journey of coding

Charmaz (2006) advocates coding for actions and meaning and doing so in gerunds (noun forms of verbs) as much as possible, since it allows the researcher to see processes that otherwise might remain invisible and to continue line by line coding “until you have codes that you want to explore” (Charmaz, 2006). *Constant comparison*: in regard feature of signature of thematic analysis for how Charmaz explained for “core’ of the method (2006, p178). Charmaz detailed the compare the analysing as “generates successively more abstract concepts and theories through inductive processes of comparing data with data, data with category, category with category, and category with concept” (2006:187).. Categories are formed, defined and refined to delineate the relationship between them through constant comparison (Charmaz 2006). Charmez highlights a comprehensive list of items which make up constant comparison,

including: a) comparing diverse views, b) comparing data from the same individual across various time frames, c) comparing incident by incident, d) comparing data categories (Charmaz 2010:188). Categories attain a theoretical level because of their theoretical reach, incisiveness, generic power and relation to other categories (Charmaz, 2006, p.11).

Development of themes

The search for coded patterns was the subsequent stage, which aimed at reducing the findings into themes, together with sub-categories from the acquired data. Researchers have also been advised to search through relevant data, in order to define specific themes that may help to create analytical groupings that are capable of indexing the data (Mason, 1994). Meanwhile, it was also beneficial to evaluate the various themed levels, as the subthemes would need to relate directly with the overall theme described (Braun and Clark 1996). Nevertheless, the nature of the process is found often to be based on chance, as the term ‘analytical serendipity’ has been used to describe the method employed by researchers to establish connections, without knowing precisely the reason why, even though useful insights are often gained (Fine and Deegan, 1996). In the current research, it was decided that the participants’ insights would provide knowledge that would aid in revealing prevalent patterns and thereby enable a greater level of understanding.

Results and analysis

A few key themes were identified, some of which appeared to be highly influential in the Saudi context in terms of the outcomes of established TQM practice in the public hospitals examined in this study, as well as all other themes that have been previously established in other studies and the predominately Western academic literature on TQM. The emergent themes and their relevant subcategories, drawn from the qualitative semi-structured interviews, are highlighted.

Identified Key themes

The generated themes identified through thematic analysis and exploration and an in-depth consideration based on provider perspectives are elaborated below. The purpose was to assess current TQM practice based on provider perspectives and determine its influence on improvement such as patient satisfaction and quality of care as well. In conducting the study, the researcher was open to exploring how the country context and other factors in the environment may be unique to Saudi public hospitals, and examine its effect on understanding the principles of TQM and how it is enacted in practice.

When questioned about the role of TQM in meeting the requirement for quality care in hospitals, all the participants agreed that its implementation in the government’s healthcare

plan was fundamental to quality care. They gave varying responses as to how TQM, when incorporated in the healthcare plan of the government, enhances the quality of care. Based on thematic analysis, the researcher identified a key theme labelled '*Levels of Understanding*', which reflected the lack of understanding and emphasis on TQM at different levels within the organisation, and any linkages. There were three main sub-themes related to this main theme, namely *Strategic Visioning and Policy Planning*, *Quality Processes* and *Quality Outcomes*, qualitative data findings and a summary of the emergent themes in diagrams 9 below:

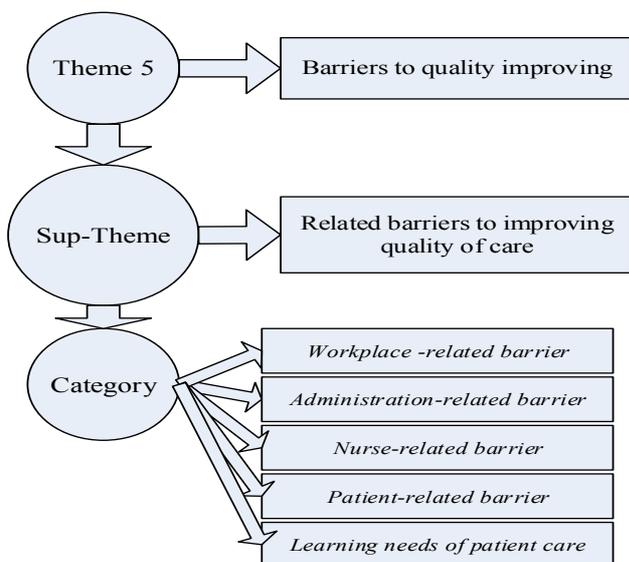
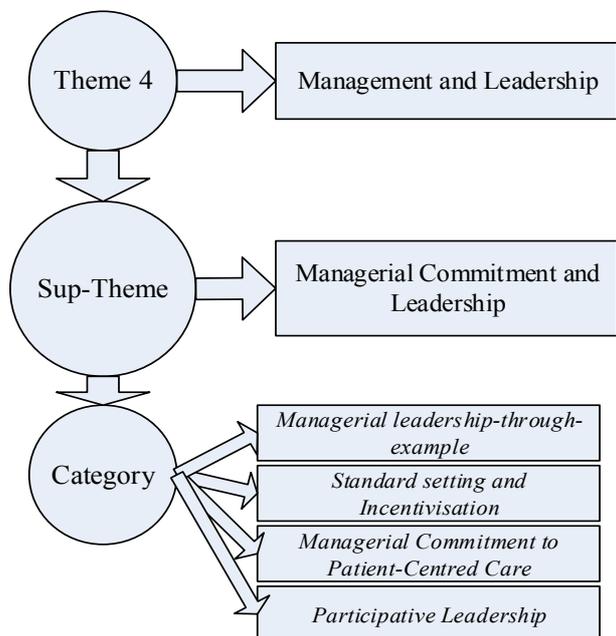
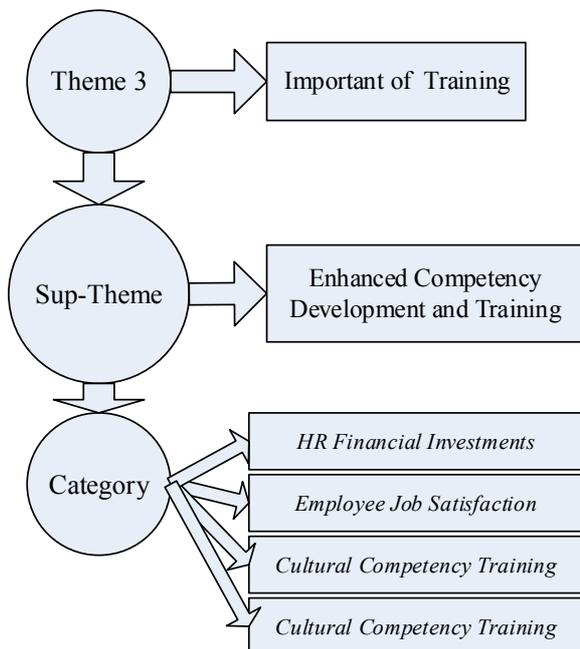
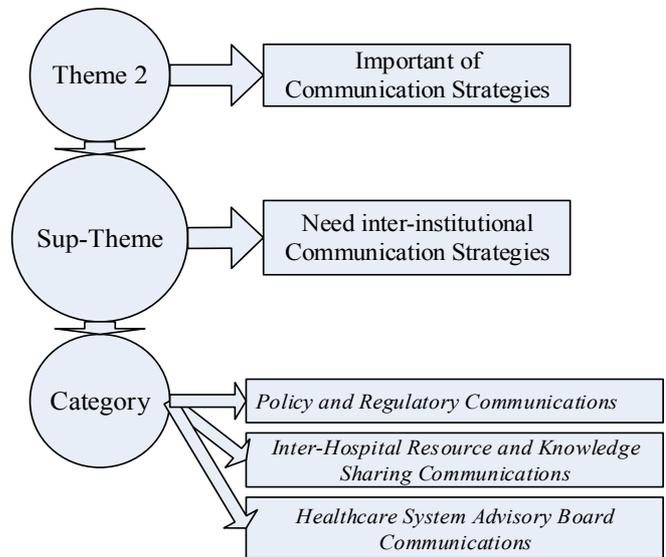
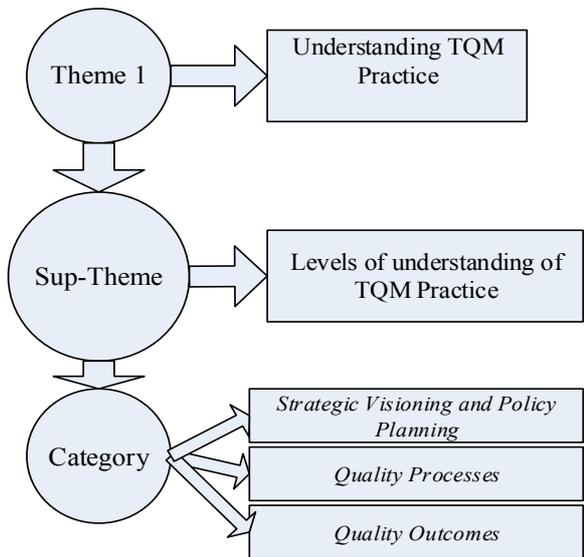


Table 10 Codes and their meaning for the qualitative data finding interviewees

Code	Its meaning
TQM, MOH 1	Quality management department in MOH first interviewee
TQM, MOH 2	Quality management department in MOH second interviewee
TQM, KFMC 1	Quality management department in King Fahad Medical City first interviewee
TQM, KFMC 2	Quality management department in King Fahad Medical City second interviewee
TQM, KAUH 1	Quality management department in King Abdul-Aziz University Hospital first interviewee
TQM, KAUH 2	Quality management department in King Abdul-Aziz University Hospital second interviewee
HN, MOH 1	Head nurses' department in MOH first interviewee
HN,MOH 2	Head nurses' department in MOH second interviewee
HN, KFMC 1	Head nurses' department in King Fahad Medical City first interviewee
HN, KFMC 2	Head nurses' department in King Fahad Medical City second interviewee
HN, KAUH 1	Head nurses' department in King Abdul-Aziz University Hospital first interviewee
HN, KAUH 2	Head nurses' department in King Abdul-Aziz University Hospital second interviewee

See Figure 18 below for an illustration of the theme and sub-themes. The results presented in the figure that designed from the qualitative thematic analysis using for this research.

Theme 1: Understanding TQM practice

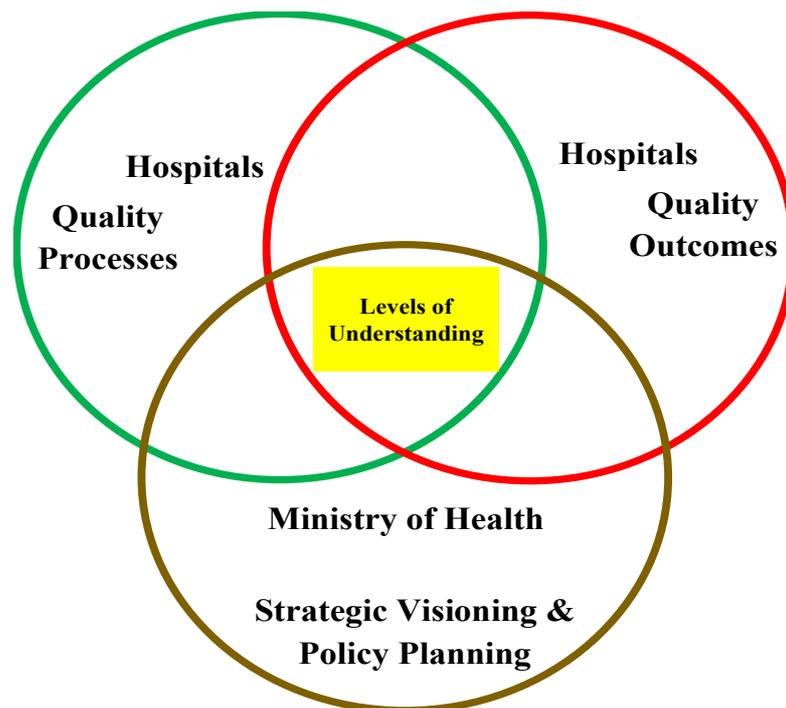


Figure 19. Theme 1: Factors for increased levels of understanding TQM practice and improved quality of care

The first sub-theme that need for enhanced *strategic visioning and policy planning*. There seem to be a missed of understand of the quality of care principles as to what exactly constituted strategic vision and policy planning of the MOH, and by extension the Saudi government, and how this actually translates and affects practice for different elements of TQM and its could impact on the patient’s satisfaction and quality of care. Hence, each aspect in the categories formed a narrative providing further evidence; for example, the need for patient-centred care to be implemented more effectively is critically reliant on patient response time and individual care provision. Different statements emphasised the need for hospital patient-centred care implementation, which highlighted the need for the government to develop TQM in this setting. Furthermore, strategic vision and policy planning must be translated into implementation at low levels in the system, for example hospital administration and the establishment of best practice in terms of TQM quality processes. *Quality processes* was a frequent sub-theme identified in terms of understanding TQM practice. This is reflected in one manager’s statement:

“Quality management, when discussed in the healthcare sector, tends to be seen as some of the responsibilities of nurses and doctors only. People outside the sector tend to address it as an issue for healthcare providers.”

(TQM, MOH 1)

Additionally, it was clarified continuously that all patients should be treated as individuals if TQM is to be shown as functioning, whereby quality care is targeted at all patients and not necessarily the result of their social status. Some of the interviewed head nurses highlighted this point:

“Patient-oriented care, in my opinion, is care which has been focused on patients as individuals regardless of their status, with the sole aim and objective of providing the right care that best suits their individual case.”

(HN, MOH 2).

This reflects the reality that patients are not just healthcare receivers but are considered from an ethical point of view, as they must be respected and treated equally regardless of other considerations. This notion also highlights the principle of healthcare being for all patients, which is the main objective of healthcare provision.

The importance of incorporating TQM into the Saudi healthcare vision was stressed upon by the participants as well as a greater understanding by employees of their individual roles and how these can affect quality outcomes. There was some consensus that quality outcomes lay solely on their shoulders and there might not be sufficient support, first in terms of work processes and policies affecting said quality outcomes. They identified this as a factor that would facilitate improved levels of quality of care. Quality outcomes were a third sub-theme reflected in the interviewees’ comments, which is again important for linking and understanding TQM practice. The concerns of the participants were that hospitals or healthcare providers should not assume that their intention to place TQM as a part of the process would be effective enough without the development of policies by the government, as reflected in the following statement by a TQM manager:

“It should however be noted that this approach will only become feasible and effective if it is developed as a national issue, where the government will have to take a pivotal role that will ensure the effectiveness of TQM process in all hospitals in Saudi Arabia.” **(TQM, MOH 2)**

“These aspects of TQM will have to be explicit in our practice books, it will have to be clearly stated as an expectation of all healthcare providers and it will have to be a part of the mission of our hospital and every other hospital across the country.” **(TQM, MOH 1)**

The TQM concept is necessary for an optimal healthcare process that assures better care for patients, and so it should be incorporated into nursing education and taught in the same regard as other nursing courses, due to its importance in this concern.

The above discussion emphasises the need to create direct linkages between government strategic visioning and policy planning, with the implementation of quality processes and increased investment in people and technical expertise collectively influencing levels of understanding of what TQM means and how it can potentially affect quality of care and desired quality outcomes. See Figure 19 for linkages to improved levels of understanding (LOU).

...of course it is in our knowledge TQM. Many training programs already talk about it. When referred to the people, a session on it is held with consent of the upper management level, conducted by an expert to talk about its advantages in the banking sector. It was quite interesting event though it is not my area of expertise. Here, however in MOH and on ground practice the scenario is different.” (TQM, MOH 1).

The Saudi service managers included in the research as depicted in the above statement preferred the concept of total quality. They gave two reasons for the above, where the foremost reasoning provided by them being that TQM has become the most trendy management concept, as a result being included in the organizational agenda in Saudi healthcare service. Quite a few of the interviewees gave this feedback.

A conference under the banner ‘TQM in The Public Sector’ was held, in which I participated two weeks ago. I believe this is an indication that for in-depth understanding of the TQM concept further training and courses are required for this department. (TQM. KFMC, 2)

The other reasoning for the preference of total quality idea is education related, owing to the fact that several TQM managers passed out from the Saudi universities. Thus, the total quality idea, without understanding the inclinations of others global universities and research centres these days, has been transferred at large from the universities directly to MOH.

Theme 2: Important of communication and strategies

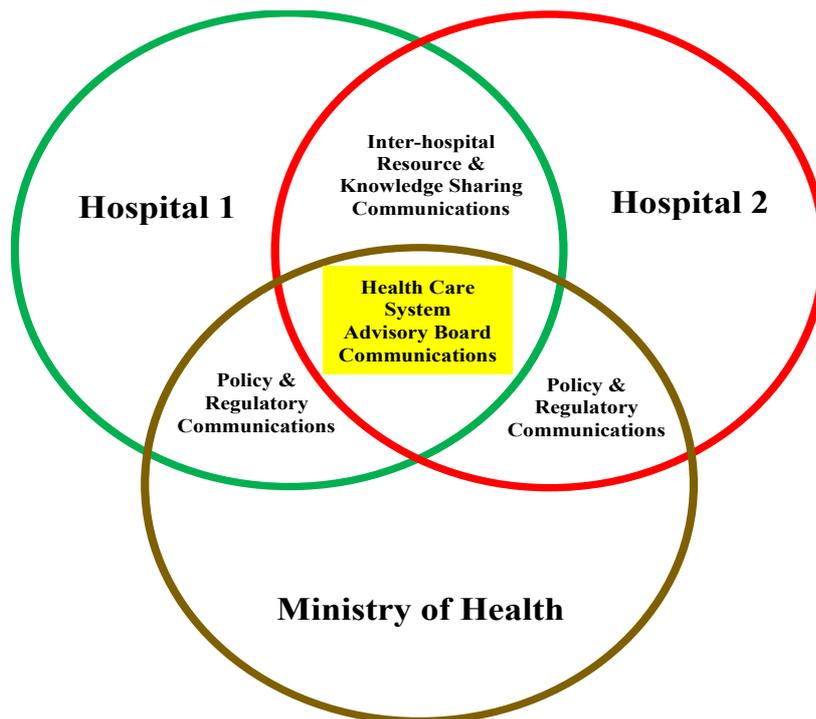


Figure 20. Theme 2: Inter-institutional communications strategy (IICS) for improved efficiency in Saudi health provision and quality of care.

The second major theme transcripts focused on the area of communications, its potential shortcomings and the need for improvement. The researcher labelled this major theme *Inter-institutional communications strategy (IICS)*. Emphasis on communications and implementation at different levels was called for by interviewees, including MOH communication with hospitals, as well as between hospitals. Improved communications would effectively lead to improved overall organisational quality provision, according to the interviewees.

Analysis of the findings indicated that three common categories or sub-themes were aligned to *Inter-institutional communications strategy (IICS)*, namely *TQM policy and regulatory communications*, *TQM inter-hospital resource and knowledge sharing communications* and *Healthcare System Advisory Board communications*. Each distinct remit of the sub-theme creates additional evidence of the process of implementing patient-centred care, which relies on improved levels of communication between government, represented by the MOH, and public hospital institutions – and between the hospitals themselves. Managerial commitment to improved communications is a necessity for improvements in the overall quality of healthcare institutions.

One of the sub-themes discussed by the interviewees was the role or negative influence of limited communication by the MOH with respect to *policy and regulatory communications*. For example, one manager suggested the following:

“One of the biggest challenges is sometimes there is poor efficiency in transmitting changes in policy and/or government regulations.” (TQM, KFMC 1)

Policies might sometimes contain points of weakness, and that could be reflected negatively in healthcare provision and pose some challenges. Therefore, government regulations and policies need to be adjusted in a way that increases the efficiency of the process.

Other participants also discussed how the TQM implementation methods and the effective management of the process affect healthcare planning, as it relates to how feedback is received and reviewed, as reflected in the quote below:

“... and on some occasions TQM bulletins are sent out to the nurses to update their knowledge and we also endeavour keep TQM staff updated through sending regular TQM bulletins.” (HN, KFMC 1)

Updating nurses' knowledge in relation to TQM aspects is something positive. In addition, sending TQM bulletin out to the nurses will enhance the process of updating them, and in such a case, their contribution to implementing TQM will be enhanced. At the same time, this will be reflected in better healthcare for patients.

This indicates that possibly the communication problem between the MOH and hospitals is not between MOH management and hospital management but may be internal due to limited or poor communication between hospital management and their employees. Nevertheless, a break in communication and transmission of policy and regulations can influence service quality outcomes.

Another sub-theme of the *Inter-institutional communications strategy (IICS)*, as discussed by some of the interviewees, also related to the need for improved communication and co-operation between hospitals, or what this researcher referred to as *Inter-hospital resource and knowledge sharing communications*. One hospital manager highlighted that the extremely limited communication between hospitals could be problematic and result in a number of challenges:

“... despite the huge investment in resources by the government and MOH, there still exist imbalances in terms of investment at individual public hospitals where resources

are not optimised and one hospital has speciality equipment or staff in one area and the other hospital in another area.” (TQM, KAUH 2)

The proper implementation of TQM necessitates investment and the allocation of resources in a way that serves TQM so its implementation can be a success for healthcare providers at all levels.

The required communication as noted by a head nurse, must be internal:

“When you receive positive or negative feedback that is related to TQM, it is fundamental that both managers and senior nurses and other employees who are part of TQM team come together to discuss TQM-related matters, as they concern patients’ care as well as feedback from staff about TQM” (HN, KAUH 1).

Feedback, whether from patients or any other party, is regarded as a positive aspect for the whole process, as it might reveal shortcomings that should be disposed of and also gives nurses and managers more confidence in implementing TQM correctly for patients to receive optimised healthcare.

The final sub-theme of the *Inter-institutional communications strategy (IICS)* identified by both management and head nurses evolves around the issue of centralised decision-making by the MOH. While there is no doubt that the ministry must play a key role in driving the quality of care in the health sector, there were suggestions by the interviewees regarding the need for some degree of decentralisation and self-monitoring – the latter at not only individual hospital level, but also by institutions collectively – to establish standards by consensus, which the researcher believes would enhance accountability. The researcher thereby proposed the need for *Healthcare System Advisory Board Communications*, a third sub-theme. One nurse manager had this viewpoint:

“At times we at the hospitals believe we are better placed, closer and understand the issues, but then we receive directives from the MOH that may not be the most efficient or effective, but we need to abide by this.” (HN, KAUH 2)

This indicates the fact that the hospitals abide by what they receive from the MOH. However, the ministry needs to increase the efficiency of its policy in relation to TQM, and in this sense the hospital could optimise healthcare provision with better implemented TQM.

Similarly, a head nurse had this to say about the need for decentralised control and improved communication:

“Each region is different, patients in different regions have different needs or challenges, and we as hospitals should have more say establishing the appropriate care” (HN, KFMC 2)

Hospitals need to have some degree of freedom when dealing with patients, because the patients are not the same in the different regions of the country and they also have different healthcare needs. As such, the ministry needs to put that in practical terms, due to the importance of this matter.

Theme 3: Important of training



Figure 21. Theme 3: Enhanced staff competency development and training initiatives.

The third main theme that emerged from the analysis of the interviews conducted with the interviewees is the need for *Enhanced staff competency development and training* for nurses as face-to-face deliverers, to improve their involvement in TQM implementation and enhance quality of care and patient satisfaction. There were four sub-themes derived from the thematic analysis and the main theme of enhanced staff competency development and training, namely: *HR financial investments, employee job satisfaction, cultural competency training, and home country national cultural dilemma.*

Thematic analyses of the verbatim transcripts revealed and re-emphasised the importance of MOH staff, hospital management and other staff, such as healthcare professionals, in the overall delivery of quality patient care, which is dependent on a variety of financial, organisational and progressive factors.

Various statements demonstrated the requirement for resource investment if TQM was to be implemented by hospital staff. This was specifically stated through distinctions in financial investment into human resources, which could be channelled into training, coaching and pay increases for nurses that have become TQM trained and efficient. This sub-theme, *HR financial investments*, for example, was reflected in the following statements:

“...training financial resources need to be budgeted for and invested accordingly, especially as financial investment is necessary for training the nurses.” (TQM, KFMC 1)

Effective implementation of TQM needs the proper training of nurses in this area, as they are on the frontline providing required healthcare; therefore, the allocation of resources and facilities for nurse training is an important issue which needs to be considered by healthcare providers.

Furthermore, the participants mentioned on a number of occasions that nurses should receive pay increase post-TQM training and also specific training should be targeted. For example, one of the respondents stated that: *“Investments in nursing training guarantee the future continuity of the TQM process when we are rewarded as nurses following the completion of our TQM-focused training.” (HN, KFMC 2)*

The real investment in the training will guarantee the implementation of TQM correctly and effectively, which could be reflected as positive patient outcomes.

Human resource financial investments was also identified by the interviewees as fundamental to the implementation of TQM, from government planning to hospital level, which was elaborated from two perspectives: investment in hospital staff and budget increases in hospitals infrastructure and facilities, with a particular focus on patient care. As it concerns investment in hospital human resources, examples such as training, educating and recruiting qualified employees will have a direct impact on quality outcomes and possibly on patient satisfaction:

“Yes, TQM is important in our healthcare, there is no way we can emphasise this enough, but we have to be aware of what it takes to make it work.” (HN, KFMC 1)

Although TQM is essential in healthcare provision, the most important issues that we need to highlight are the factors which make it work properly and in a way that guarantees optimal healthcare for all patients in all healthcare institutions.

Similarly, it was noted that budget increases through investments in hospital infrastructure that focuses on patient care are paramount when implementing TQM, as reflected in the following quote:

“The MOH must understand that it would be completely foolhardy to want TQM and not be ready to commit adequate resources to its attainment. TQM is a resource-oriented initiative that requires massive investment.”
(HN, KFMC 2)

The commitment of the MOH to TQM, and its ability to allocate sufficient resources, is necessary for TQM to be implemented successfully. A commitment from the top to the bottom is always necessary. Sufficient resources allow nurses to be trained in aspects of TQM, which in turn increases their potential to implement it for the benefit of patients.

The themes that emerged from the analysis of the results show the need for TQM to be incorporated and maintained within the healthcare services of Saudi Arabia, emphasising the need for quality, patient-oriented care, government focus on planning around quality healthcare assurance through the development of TQM policies and investment in the healthcare sector.

Another sub-theme that emerged under the umbrella of *Enhanced competency development and training* as a prerequisite for TQM assessment in relation to staffing competence was *Employee job satisfaction*. The responses were evaluated in terms of being more appreciated, role enhancement around TQM and improved TQM training, where required. *Employee job satisfaction* was identified in the thematic analysis as a very important factor influencing the quality of care and was thus included as a vital sub-theme. The nurses opined that when a nurse amongst other staff members feels more appreciated, their quality of care has a tendency to improve. One of the respondents stressed that:

“We consider job satisfaction as a force that will certainly push us in the direction of taking up a task and putting in our best, regardless of what it takes.” **(HN, KAUH 1)**

In addition, role enhancement in relation to TQM was discussed as a necessity, as reflected in the statements that follow shortly. When nurses are satisfied with their jobs, which will definitely raise their ability to provide better healthcare for patients, job satisfaction will be a positive aspect for implementing TQM, as it is a part of the healthcare provision.

In addition, role enhancement in relation to TQM was discussed as a necessity, as reflected in the following statement:

“Job satisfaction indicates the potential of a nurse to contribute and progress in the process of healthcare provision – and this, as a result, will be of benefit to the patients.” (HN, KAUH 2)

Proper healthcare provision is essential for patients, but it cannot be guaranteed without satisfied nurses, so job satisfaction is a motivator for nurses to contribute positively to overall healthcare provision, including TQM implementation.

The above examples and other reported interview data highlight the importance of ongoing training. It was found that reinforced TQM training in hospitals is significant for the continuous implementation thereof, and this should not be left only to the development of nursing careers and clearly stated roles and responsibilities. Ongoing TQM training is the lifeblood of TQM improvements and the infusing of TQM culture as part of hospitals’ business philosophy:

“Nurses are on the frontline in the provision of healthcare, and their continuous training is vital... Training now and again for nurses and technicians to implement TQM is good,” (HN, KFMC 1)

The training of all the nurses and technicians in all the aspects of TQM is necessary for them to be ready to implement it as a part of their routine daily duties. Trained nurses and technical staff are core members in implementing efficient TQM in hospitals.

Other key sub-themes under *Enhanced competency development and training* pointed to the issue of cultural influences on TQM and quality of care. Related challenges in terms of culture facing healthcare regard were noted on a couple of fronts. One of the sub-themes with respect to culture was the need for *Cultural competency training*. This challenge is related to the large expatriate health professional population and how they interface with Saudi nationals, which calls for cultural sensitivity, as misunderstandings often occur in the provision of care. The need for expatriates to be more aware or sensitive to cultural differences was noted, and as such the researcher labelled ‘cultural competency training’ as a fourth sub-theme. This finding is reflected in the following statement:

“A related issue is additional training for expatriate nurses, because at times there could be cultural misunderstandings that affect the quality of care.” (HN, KFMC 2)

Cultural aspects need to be highlighted during the training of expatriate nurses, as they enhance their ability to understand different needs of patients, and this in turn will be positive for both nurses and the patients.

The second issue surrounding culture is to do with home-country nationals, an acute manpower shortage and the cultural barriers that make staffing and workload allocations challenging. For example, one TQM manager succinctly noted the following:

“Our government is on a drive to increase the amount of Saudi nationals working in the health sector, which I see as positive, since we must become to some extent self-sufficient.” (HN, KFMC 1)

The Saudi government is working hard on replacing expatriate nurses with Saudi staff, which is a positive aspect in this concern, as cultural aspects sometimes hinder proper healthcare provision.

The above issues regarding home-country nationals appeared to be a significant challenge, as this was discussed by both managers and head nurses. The researcher labelled this fourth sub-theme *Home-country national cultural dilemma* or *HCN cultural dilemma* under the umbrella of the main theme *Enhanced competency development and training*.

Following the above statements and examples that generated the third theme, it is evident that there is a requirement for staff to be fully trained and developed so that their competence levels can be improved significantly to help in the implementation of TQM, particularly at the point of interface with patients.

Theme 4: Management and Leadership

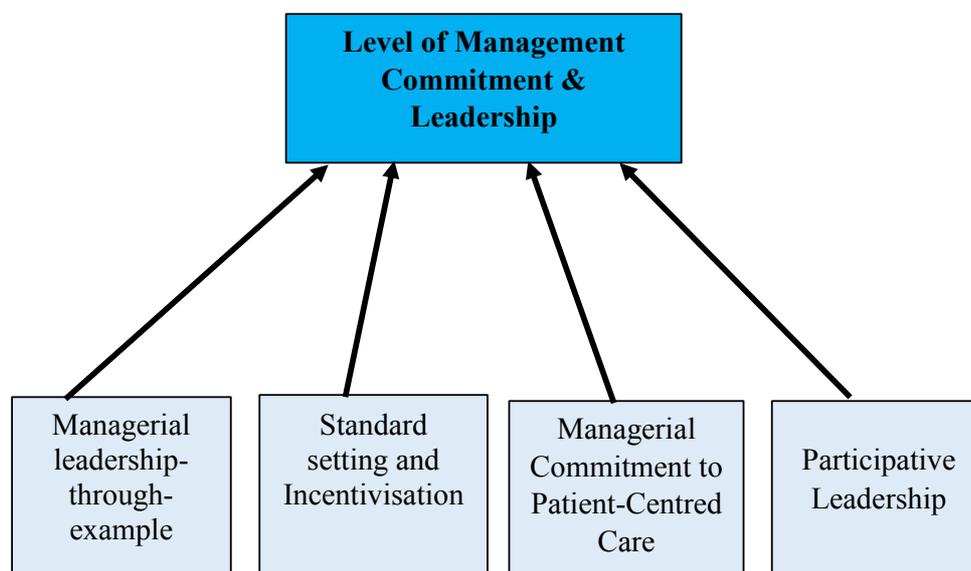


Figure 22. Theme 4 Management commitment and leadership.

The conduct of the qualitative interviewees through thematic analyses led to a fourth major theme, labelled *Management commitment and leadership*. Related to this theme were four sub-themes: *Managerial leadership-through-example*, *Standard setting and incentivisation*, *Managerial commitment to patient-centred care* and *Participative leadership*.

It was argued by the participants that there is a need not only for TQM training to be incorporated within all the roles within the healthcare sector as discussed above, but also there must be top-down commitment to TQM training, which must be championed by senior managers who must also participate, in order to help them better understand the TQM process. A sub-theme identified based on this sentiment was labelled *Managerial leadership-through-example*; in other words, management must walk the talk. This is reflected in the following comments:

“Sometimes, when we you go through some of these specific or refresher training sessions, then, when you qualify and train staff, it becomes easy to run a TQM facility.”

(HN, KAUH 2)

Refresher and specific training is necessary for nursing staff to keep up to date in the area of TQM, which facilitates its implementation in a way that results in optimal and beneficial healthcare provision for patients with high healthcare expectations.

Beyond emphasising the critical importance of leadership and management commitment, the above also reiterates the need to augment competence development and the training of key staff.

A number of interviewees discussed the need for management to demonstrate commitment to the provision of high-quality care and solid engagement in TQM practice by not only measuring success, but also rewarding staff for their performances in this regard. This second sub-theme generated through thematic analyses was called *Standard setting and incentivisation*. For example, patient satisfaction metrics required to measure success must be evaluated regularly, the necessary feedback must be relayed to all employees involved in the process and delivery and motivation must be reinforced through financial rewards. These sentiments were shared by many and well-articulated below by one of the head nurse interviewees:

“There should be a clear-cut policy developed to help measure the success rate of the TQM process at all times. This standard of measuring will be aided by feedback received and also by ensuring that the process aligns with yardsticks provided by TQM managers.” **(HN, KAUH 1)**

Clearly adopted policies are essential for the success of TQM implementation, which could be developed and measured by the feedback, thus ensuring the alignment of TQM with policies governing this aspect, as the aim is to provide effective healthcare for patients.

When management commitment to TQM was discussed, the interviewees also stressed that management buy-in was required, i.e. management needs to be passionate about TQM if the quality of patient care is to improve. This was subsequently clarified through TQM orientation policy and procedure, together with resource investment in training.

A third sub-theme of the main theme of *Management commitment and leadership* that was distinguished through the interviews relates to care that is centred on patients. The researcher called this third sub-theme *Managerial commitment to patient-centred care*, which should be the focal point of any commitment made by healthcare managers. This should be micro-evaluated through the evaluation of patient care and satisfaction and ensuring that staff members are delivering quality care. Specifically, the focus of patient care from management commitment to TQM was reflected in the following participant's responses:

“Patients are individuals who need to be considered equally for care, and co-operation reflects that the expectations of the patients are met and the patient responds with positive feedback and satisfaction in the hospital. They co-operate with us and also give us feedback regarding our service.” (TQM, KAUH 1).

The co-operation and positive feedback of patients is necessary, as their expectations could be considered, co-operative and satisfied patients work in the direction of letting nurses to provide better care, due the fact that the positive feedback increases their potential of offering more. This theme of managerial commitment to patient-centred care can be understood through showing that TQM improves when patients' expectations are met, if their satisfaction improves due to quick reactions and when a good bedside manner is in evidence. Different nurses provided various answers, all of which emphasised how patients' expectations are met. One of such statement was as follows:

“Patients normally have high expectations... we work hard to fill the expectations of our patients... and meet the needs for patients and their expectations in all sectors.” (HN, MOH 1)

The expectations of patients need to be taken seriously by healthcare providers. The participants' responses concerning management commitment included how TQM should be implemented as part of the culture of the hospital when attempting to advance patient satisfaction. The participants further identified certain ways of how TQM as part of the culture of a hospital can be developed and maintained through the establishment of a more *Participative culture*, which was the fourth sub-theme identified under the main theme *Management commitment and leadership*. Organising meetings and getting individuals such

as nurses themselves involved in decision-making were amongst the ways identified in this regard, as reflected in a head nurse’s following statement:

“We hold regular meetings to discuss relevant matters, since TQM is as important as other issues relating to patient care. TQM meetings should also be held, since they are necessary for discussing relevant matters.” (HN, KFMC 2)

Frequent meetings should be held, because different aspects of healthcare, including the implementation of the TQN and relevant issues, will be dealt with in a proper way. Workshops and courses are also important in this respect.

It is evident that the overall progress of quality can be enhanced through management commitment to TQM, as it has been demonstrated and stated that for quality and patient satisfaction to be truly promoted through a positive organisation of healthcare, management must be committed to its implementation. It was posited that TQM implementation should incorporate the creation of a specific culture that requires meetings, feedback sessions and reviewing metrics orientated towards TQM. Another required input was managerial leadership-through-example, or management buy-in, involving policies and procedures based around TQM. Thus, when all of these occur, output should improve patient and staff satisfaction, which will ultimately deliver a more viable, high-quality service.

Theme 5: Barriers to quality improving

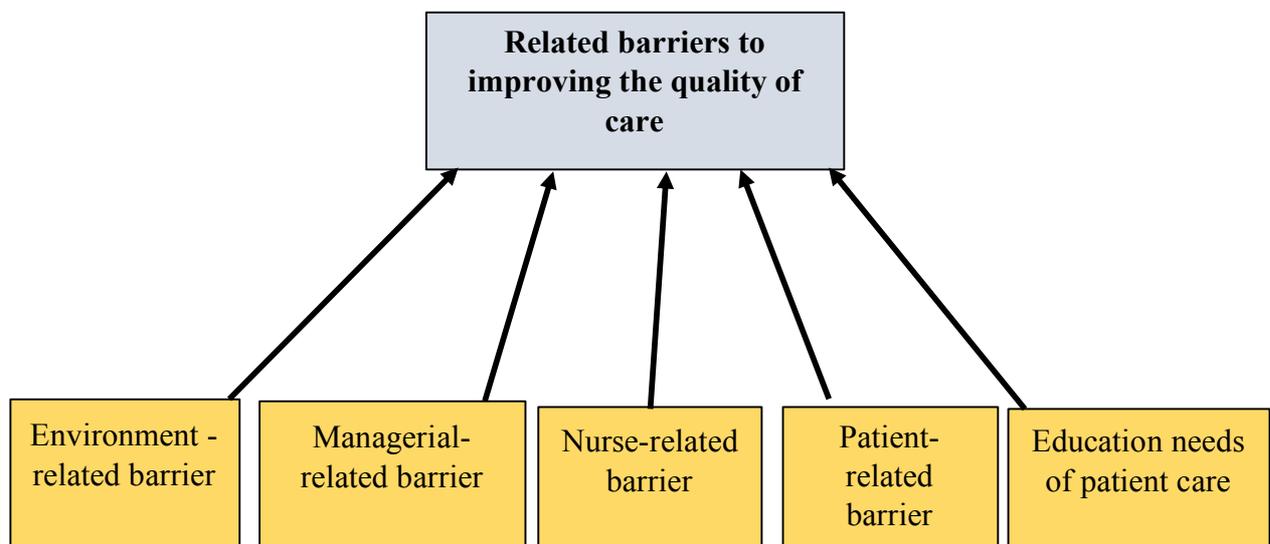


Figure 23. Theme 5 Related barriers to improving the quality of care.

Qualitative data findings about barriers to improving the quality of care

Open-ended questions regarding the obstacles which effect the development of healthcare were given to attain the qualitative data by the researcher. The quality analysis approach when applied within the methodology (see Chapter four), showcased three major themes which depicts the findings of the qualitative data. The three findings are nursing work related hurdles, then administration related hurdles and finally the barriers related to nurses. The main themes and their subcategories can be observed in the qualitative data analysis where nursing work related hurdles was not surprising, whereas on the basis of literature view the hurdles related to administration is unforeseen due to the fact that administrations role is to maintain the healthcare improvement.

The nature of nursing barriers

Three major barriers are associated with nursing work, namely staff shortages, lack of time and pressure related to workload. Insufficient time available for improving quality has been referred to previously in the findings of the stage one.

Its noted that the staff shortages around six different participants, while the failure to allocate time was stated by nine participants. Four interviewees mentioned pressure in relation to their workload. This was related particularly to staff shortages as well as the impact on allocated time in patient treatment. For instance, it was stated by one participant that, *“The basic element of quality healthcare is failing in provision, due to time allocation, and although we all attempt to implement optimal healthcare improvements, it is often not possible. In this matters could available time to affordable healthcare about four minutes.”* (TQM, KAUH 2)

In addition, inadequately allocated time relates to staff shortages, which are always detrimental to improving healthcare quality. Indeed, these shortages instil a need for nurses within hospitals to concentrate more on their own agenda than on the basis of nursing, which is highly negative in improving patient healthcare quality. One participant stated that, *“Nurse shortages are creating a fixation on personal work instead of patients.”* (HN, KFMC 1) Likewise, another individual noted, *“Due to staff shortages, there is not sufficient time to improve healthcare for patients, as we are handling 1:3 on many occasions; we only allocate sufficient time to patient treatment after thinking about our own workload.”* (HN, KFMC 2) Therefore, it is evident that increased workload significantly reduces the time available to provide quality healthcare. What is more, complex working conditions are related to insufficient time allocation, which means that new solutions have to be found.

Barriers of Language and Communication

The present research identified nurse-related barriers as important in understanding the development of TQM. There are two forms of nurse-related barriers in particular that require analysis: language/communication and psychology. These can both have a defining influence upon nursing in the KSA. Overall, the results prove language barrier and poor communication actively affect healthcare quality improvements. This trait is often prevalent in non-Saudi nurses, as stated in stage two data results. One expatriate head nurse noted that, *“We are generally able to express things in detail to patients within our home country, as we share a native language, which means that we are able to present information with no barriers. On the contrary, it is very difficult to express my ideas here, when the language is such a barrier. Most of the time it is even hard to understand what the staff members require of me, which means that the care provision decreases in quality.”* (HN, KAUH 1) Consequently, these expatriate nurses often seek help from different workers to act as interpreters, which takes more time.

Furthermore, the language barrier can affect indigenous nurses, as many immigrants who become patients or staff members cannot speak Arabic, while many are also unable to speak English. One Saudi Arabian nurse noted, *“Immigrants here cannot understand the Arabic language, which means that we are unable to provide adequate healthcare to them.”* (HN, KAUH 2) Thus, it appears for some that quality improvements in healthcare relate directly to communication. An interviewee remarked that, *“Quality healthcare and its improvements always relate to the language barrier, as not all nurses are able to speak more languages than their own native one.”* (TQM, KAUH 1) What is more, another individual noted that, *“The communication barrier is always present, which is detrimental to the provision of healthcare.”* (HN, KFMC 2) Therefore, it can be understood from these comments that healthcare improvements decrease due to language barriers, and thus new recommendations must be made.

Internal and external communication barriers need to be understood, as they can manifest in disinterest in advancing professionals, which ultimately proves detrimental to the level of quality healthcare, alongside their level of practice. Accordingly, many of the individual nurses who were interviewed stated this point. This lack of interest in the profession, which is a detrimental consequence of the psychological effect, proved to have an effect upon the development and cost-effectiveness of competent healthcare provision. One nurse stated that, *“The nurses’ readiness to learn is a particular hindrance when it is not high enough, which is prevalent among many of our staff, as they do not engage with training. Thus, what can we do when they fail to participate?”* (HN, MOH 1) This is a particular issue, as the nurse may then

ignore the provision of quality healthcare, due to a lack of productive training. Indeed, this can occur quite often, as the interviewed nurses reported. It was indicated by certain nurses that they would avoid training programmes if it were possible. One individual noted that, “*Some nurses fail to be interested in the improvement of healthcare or their own quality and they generally do not even care about improving their levels, as their interest in patients’ wellbeing is limited.*” (HN, MOH 2)

Three individual factors have been shown through the findings that result in poor interest in quality provision, as well as in improving healthcare, including excessive workload during periods of staff shortages. Essentially, this is because nurses are required to commit to planned nursing care as well as other duties aside from care, which consequently results in a failure of correct levels of health provision. One head nurse remarked that, “*we have to undertake many duties that are not even part of the field of nursing, which is due to insufficient level of nursing management, which results in poor provision of care.*” (HN, KAUH 1) Likewise, another interviewee stated that, “*it is vital that time is provided to the management of nursing care, as this will allow for the allocation of the correct patient time.*” (HN, KFMC 2).

Nurses’ personal lives and their own levels of satisfaction are another reason that can affect time allocation, as an unmotivated nurse is often in a psychological situation that fails to provide inspiration to complete basic training correctly. Indeed, the findings demonstrate that nurses’ performances often result in not caring about the provision of quality. Therefore, certain nurses are unable to overcome their personal issues, which directly affect their levels of care provision, and thus patients suffer accordingly.

Many reasons exist as to why a nurse will be dissatisfied with their work or suffer from psychological debilitation, one of which is family issues (a common problem among nurses in Saudi Arabia). Unfortunately, based on the ethics of the research, this issue could not be examined further. It is not common from a cultural perspective in the country for people to be open about personal matters outside of the family, and this includes not even disclosing information to their doctors. In particular, the female nurses in the interviews stated that they were uncomfortable divulging personal issues with strangers. One of the interviewees noted that, “*Different personal problems that nurses experience can affect their working performance, which can include the provision of healthcare, as personal problems in the home can prove detrimental to the application in education.*” (HN, MOH 2) Moreover, a different participant stated that, “*Nurses’ psychological statuses may have an effect upon their practice of health provision improvement.*” (HN, KFMC 2)

In addition, specific dissatisfaction with Saudi Arabian culture was reported by two expatriate nurses, as they stated that they struggled to adapt, which often made them disinterested in the work. One particular expatriate nurse manager determined that, *“It is very difficult to socialise in the city outside of work, and this makes us not enjoy our work to the same level, as the psychological impact on expatriate nurses, as in any country, demotivates them to progress and improve their provision of healthcare.”* (HN, KAUH 1) What is more, a different expatriate nurse stated that, *“Many of us struggle to understand why it is necessary to always cover our faces, as we are not all Muslims.”* (HN, KFMC 2) It can therefore be determined from this statement that the culture within the country has a negative psychological effect, which ultimately reflects in little interest in providing quality healthcare. Consequently, plans to improve healthcare need to formulate around encouragement into education, as well as teaching the importance of greater learning within the profession, which will positively affect the provision of healthcare. This point is fully presented and analysed in the following chapter.

Patient-related barriers

It has also been shown through the findings that provision hindrance in quality healthcare improvements is affected by patients, as reported by nine different participating nurses. It was identified by the participants that two types of barriers can be attributed to patients: their health condition and the level of treatment collaboration, or refusal, not related to points of health. The medical or psychological health status of a patient will affect the decisions taken by nurses when they plan to implement better healthcare. This educational overview levels by the family members of patients, which is often due to their concerns in regards to the relevant condition. One participant stated that, *“It is inappropriate to exercise treatment when patients are in a [heightened] psychological state.”* (HN, KAUH 2) What is more, another stated that, *“They [patients] are often in denial, which is very challenging to explain to them.”* (HN, KAUH 1)

The refusal to accept treatment because of non-medical reasons is another potential barrier, as indicated by the findings showing that patients were non-co-operative and disrespectful about the care they received on many occasions. This is linked to two specific factors: levels of education and literacy and differences in cultural background. In particular, the literacy level of a patient can influence their acceptance of care, as they are more likely to interact with nurses when they are educated and feel they are on the same educational level. One interviewee stated that, *“Certain patients refuse to accept different procedures, which I believe is due to their lack of education.”* Likewise, a different nurse remarked that, *“Some patients fail to co-operate, which could be due to not understanding the information.”* (HN, KFMC 2)

As mentioned above, the second factor making a patient refuse to engage with care provision could relate to their different ethnicity or culture in relation to the care provider. However, many of the nurses did struggle to comprehend why a patient would refuse treatment on the basis of cultural differences. Yet, a head nurse noted that, *“It is often difficult to standardise the quality of care we provide, due to the acceptance of a variety of different ethnicities into the health service that fail to engage with the care provided; they often refuse to listen at all.”* (HN, KFMC 1) Following on from this, another head nurse stated that, *“People in different nations respect and accept the provision of treatment more than people in Saudi Arabia.”* (HN, KAUH 1) Therefore, it is necessary to analyse whether working the different and ethnical understandings of healthcare, or not, which is discussed in the following chapter.

Environmental -related barriers

Barriers of an administration-related nature were also identified as another significant theme. Different staff members, including managers and nurses (both Saudi Arabian and expatriate), stated that this included inadequacies in the management of problems and bureaucracy between nursing and hospital environment departments. Accordingly, this resulted in decreased satisfaction levels in regards to the style of hospital management and environment. Consequently, the quality of healthcare decreases, as shown in the quantitative data findings, as poor job satisfaction becomes a potential barrier. Inadequate levels of hospital management can create myriad problems that stem from this dissatisfaction, which in the interviews was linked directly to the education of nurses. One head nurse stated that, *“Inadequate problem management is increasingly evident, which proves negative to healthcare provision; the right people should be employed in the correct positions, as it is often the case that updated information and resources are not provided in the correct manner.”* (HN, KAUH 2)

A different administrative barrier comes in the form of a failure to support and motivate nursing staff, particularly in relation to improving healthcare, which results in an environment of non-motivation that can prove highly detrimental when workload is increased. Specifically, one interviewee noted that, *“the hospital administration offers no level of motivation and the nursing department is dependent upon the duty managers, who are not always capable in their role.”* (TQM, KAUH 2)

In addition, it was indicated through the findings that the failure of educational instructors to provide adequate training also has a negative effect upon healthcare quality improvement, as well as placing personal limitations on the nursing instructors themselves. One individual stated that, *“The instructors themselves often need to be trained initially, as they clearly don’t always*

have the right experience in sufficiently good course training, which is shown in their lack of expertise. The hospitals, to assure their own progress, need to rectify this first. (HN, KFMC 1) Likewise, another individual suggested that, *“The language barrier needs to be improved first, as the quality of healthcare will not improve without it; therefore, everyone should learn English from as early as possible in their educational development, which will develop writing, speaking, reading and listening skills in the language.” (HN, KFMC 1)* As a result, it can be determined that managers and instructors are often in need of further training, before they can offer guidance themselves.

The policy of work ethics in nursing practice is not clear either, but it can have a detrimental effect on the provision of healthcare. Indeed, there is often a certain level of uncertainty in relation to role boundaries that affects the initiative of nurses, as they begin to prioritise less important tasks in administration instead of healthcare. This is commonly linked to a fear of reprisals and the fear of not following protocol, which can result in negligence. One head nurse, who was interviewed at the MOH, stated that, *“It is not always clear what the work policy is, or whether nurses know their defined roles, which then limits them in their work application, as they can be worried about committing errors. (HN, MOH 1)* Similarly, a different participant said, *“It is normal for us to have to undertake tasks that are not part of nursing, which is due to inadequate management in the hospital, and thus quality healthcare provision gets ignored.” (HN, KFMC 1)* Therefore, nurses’ roles need to be made unequivocally clear in order to improve general healthcare, which is also connected to professional areas of responsibility and role boundaries. This point will be analysed in the recommendations chapter of this work.

There is also distinct insufficiency in the actions of management in relation to the role of patients in hospitals, as the findings showed that general healthcare can be affected by large amounts of family members visiting and staying for a great length of time. It is believed by nurses that patients’ visitors should be restricted more to the time spent in the hospital, in order not to disrupt the provision of care, even if this is contrary to Saudi cultural norms. One interviewee noted that, *“The administration needs to reduce the amount of family members visiting, as they often contradict the medical service provided.” (TQM, KAUH 1)* Moreover, one nurse said that, *“The cultural issues that conflict with the provision of care need to be addressed first.” (TQM, KAUH 2)* As a result, it is evident that inadequate management in regards to hospital-related problems can prove negative to the quality of healthcare, together with unclear working policies, a failure to motivate correctly, a lack of adequate training of nursing instructors and visitor issues.

Conclusion

A quick review of the major qualitative findings indicates five emergent themes, as depicted in Table 5.1, namely *Levels of Understanding of TQM Practice*, *Inter-institutional Communication Strategies (IICS)*, *Enhanced Competency Development*, *Training and Management Commitment* and *Leadership and Related Barriers to Improving the Quality of Care*.

A quick observation made by the researcher indicated, to the best of the researcher's knowledge, that the first two themes are generally new to the extant literature, at least in modelling, and thus are useful contributions, while the latter three are established in the TQM literature but appear to be critically important in the Saudi context, or at least in public hospitals. These concepts are of vital importance in understanding TQM in the health service within Saudi Arabia and how it is ultimately delivered via policies and investments from the MOH through to hospital regulations.

Notably, in an overall review of the thematic analyses, other potential themes beyond those presented were identified which are consistent with the extant literature and may even be evident in some of the verbatim quotes included above, concepts such as internal communication, employee involvement, organisational culture and customer focus and teamwork. Based on the thematic analyses conducted for the stage one, the qualitative dataset of the study, inclusive of the four major themes generated from analysing interview data and reflecting on the theoretical model presented later on in the study, the researcher proposed a new conceptual model called the TQM Quality of Care (TQMQOC) framework, as shown in Figure 26 in the conclusion chapter.

TQM Practice in Saudi Arabia: A Quantitative Nursing Study

Introduction

This chapter reports on the second phase of data collection and represents the results/findings for nurses followed by patient results based on completed questionnaires. As mentioned in the methodology chapter, data from quantitative and qualitative studies were compared and triangulated to produce more robust evidence on TQM in Saudi Arabia. The main goal of the study was to explore and critically examine existing TQM practices in Saudi hospitals, with a view to improving efficiency and productivity, enhancing the quality of care and ultimately confirming the themes extracted from the qualitative first stage. In so doing, the research should have revealed areas of strengths and weaknesses. For appropriateness of responsive data collection, some of the TQM questions differed between nurses and patients in the study (see Appendix 8 and 9 for the nurse and patient questionnaires).

The use of a Likert scale questionnaire means that the distances between each response category are not equidistant from each other. Each response category was assigned numbers, so that they could be entered into SPSS for statistical analysis. Descriptive statistics and Chi-Square were used to compare data from nurses in most sections. The P value was set at 0.05, which is congruent with several studies (Tressoldi and Giofre, 2015, Streiner, 2015).

Nurse demographics

Data were collected from 220 nurses from two different hospitals: King Fahad Medical City (KFMC) (101/45.9%) and the King Abdul-Aziz University Hospital (KAUH) (119/54.1%). The sample comprised 166 females (75.5%) and 54 males (24.5%). The distribution of gender according to hospitals is shown in Figure (24). The majority of nurses, 150 (68.2%), were aged between 31 and 40 years. There were 34 (15.5%) between 21 and 30, 20 (9.1%) aged 41-50, 10 (4.5%) aged 18-20 and six (2.7%) aged more than 50 years old. Regarding years of professional experience, the majority (71.4%) were within six to 20 years. Nurse demographics are presented in the table below (Table 11).

Table 11 Nurse Demographics

		Number of nurses	Percent (%)
Hospital			
	KFMC	101	45.9%
	KAUH	119	54.1%
Gender			
	Males	54	24.5%
	Females	166	75.5%
Age			
	18-20 Years	10	4.5%
	21 – 30 Years	34	15.5%
	31 – 40 Years	150	68.2%
	41 – 50 Years	20	9.1%
	50 Years or more	6	2.7%
	Total	220	100%
Years of professional experience			
	2-5	4	1.8%
	6-10	82	37.3%
	11-20	75	34.1%
	21-30	48	21.8%
	More than 30	11	5%
	Total	220	100%

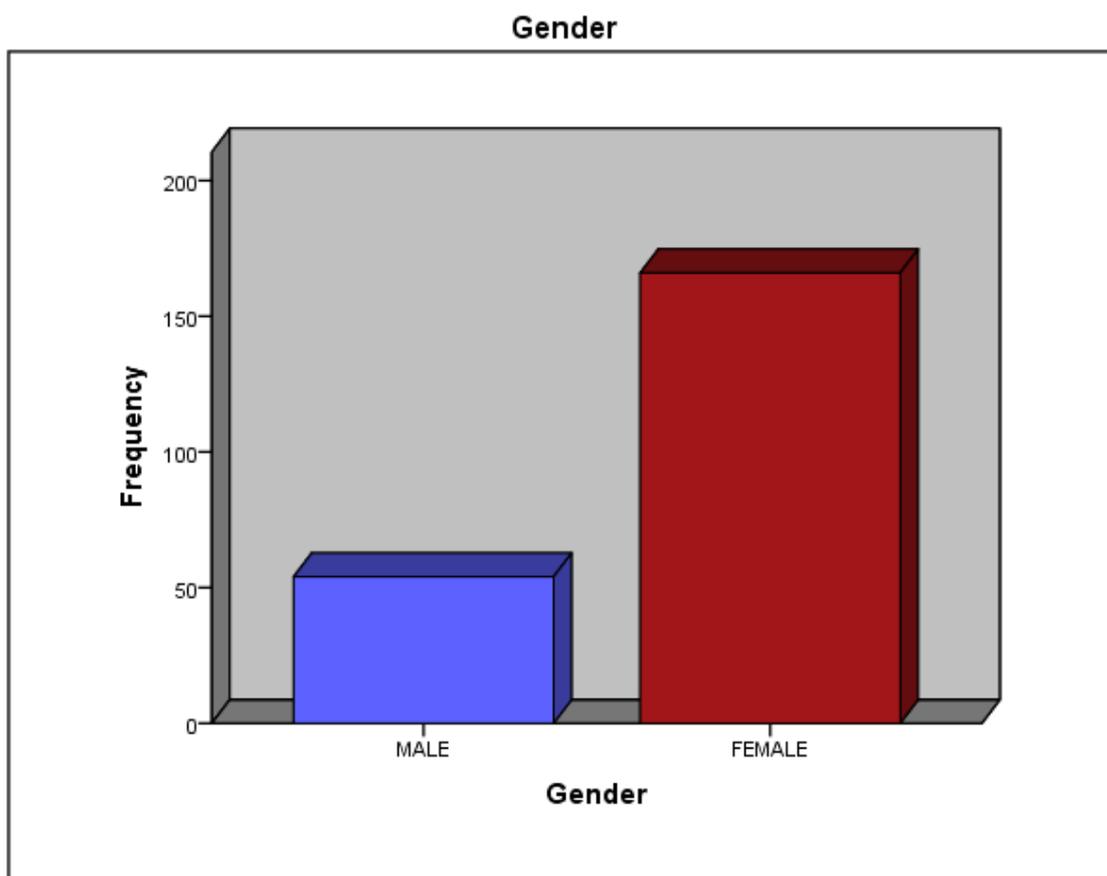


Figure 24. Distribution of nurses by gender and hospital

Nurses' perceptions of TQM practice

The total perceptions on TQM practice score revealed high agreement on all items, with the top three statements being: “The hospital works to ensure nurses’ job satisfaction” (Mean = 3.91, SD = 1.36), “I believe that TQM is at the appropriate standard that should be desired by patients” (Mean = 3.28, SD = 0.68) and “TQM is applied and implemented in my hospital” (Mean = 3.41, SD = 0.915) (Table 12).

Table 12 Agreements on statements of nurses’ perceptions regarding TQM practice

Item	Min	Max	Mean	SD
TQM is applied and implemented in my hospital	2	4	3.41	.915
There are guidelines and sufficient information available on TQM and its updates	2	4	2.14	1.002
TQM implementation at my hospital follows and is consistent with the MOH’s strategic vision and policies	2	4	2.30	1.151

Hospital quality processes in TQM are being updated according to research findings and best practice locally and abroad	2	4	2.75	.962
TQM is implemented equally on the national level in the KSA regardless of the healthcare sector	2	4	3.11	1.151
I am satisfied with the job I do	2	4	3.10	.993
The hospital works to ensure nurses' job satisfaction	1	4	3.91	1.357
I am satisfied with TQM outcomes at my hospital	2	4	3.10	.993
I believe that TQM is at the appropriate standard that should be desired by patients	2	4	3.28	.683

It was surprising that the nurses agreed with these statements and that the three top items were also significantly different according to years of experience: “The hospital works to ensure nurses’ job satisfaction” (Chi-Square = 116.14, df = 3, p = 0.000), “I believe that TQM test was the test of choice for non-parametric data with the nominal and ordinal levels.

Implementation of a TQM programme in Saudi Arabian hospitals

Nurses in the study agreed that TQM is being implemented and following a strategic plan of Ministry of Health in Saudi Arabia, with the three most popular items being: “TQM is applied and implemented in my hospital” (Mean = 3.41, SD = 0.915), “There are guidelines and sufficient information available on TQM and its updates” (Mean = 3.14, SD = 1) and “TQM implementation at my hospital follows and is consistent with the MOH’s strategic vision and policies” (Mean = 3.10, SD = 1.15). However, terms which were least agreed on or disagreed with by nurses were: “TQM is implemented equally on the national level in the KSA regardless of the healthcare sector” (Mean = 2.11, SD = 1.15) and “Hospital quality processes in TQM are updated according to research findings and best practice locally and abroad” (Mean = 2.75, SD = 0.962). Indeed, this might indicate that the TQM program is applied individually and needs standardised guidelines based on evidence base in order to reach the optimum level across health care settings throughout the Saudi Arabia.

Regarding nurses’ satisfaction with the implementation of a TQM programme, they mostly agreed on the items “I am satisfied with the job I do” (Mean = 3.20, SD = 0.993) and “The hospital works to ensure nurses’ job satisfaction” (Mean = 3.51, SD = 1.36). However, they were less in agreement with the item “I am satisfied with TQM outcomes at my hospital” (Mean = 2.6, SD = 0.643). Table (13) provides details of the nurses’ responses to the items.

Table 13 Nurses' perceptions on the implementation of and satisfaction with TQM

Item	Min	Max	Mean	SD
TQM is applied and implemented in my hospital	2	4	3.41	.915
There are guidelines and sufficient information available on TQM and its updates	2	4	3.14	1.002
TQM implementation at my hospital follows and is consistent with the MOH's strategic vision and policies	2	4	3.10	1.151
Hospital quality processes in TQM are updated according to research findings and best practice locally and abroad	2	4	2.75	.962
TQM is implemented equally on the national level in the KSA regardless of the healthcare sector	2	4	2.11	1.151
I am satisfied with the job I do	2	4	3.20	.993
The hospital works to ensure nurses' job satisfaction	1	4	3.51	1.357
I believe that TQM is at the appropriate standard that should be desired by patients	2	4	3.28	.683
I am satisfied with TQM outcomes at my hospital	2	4	2.6	.643

In addition to TQM programmes, nurses were also asked if they were equipped and able to provide any other types of care or patient-centred activities, which might be part of the programme and meet the individual needs of patients. They were also asked whether their activities were effective and to rate the effectiveness of these activities or any other programmes. The three most popular items agreed by the nurses were: "I provide services other than nursing, such as catering, education and social support" (Mean = 3.48, SD = 0.3), "I feel equipped to care for patients efficiently and effectively" (Mean = 2.97, SD = 0.61) and "In our hospital, nursing care has been provided according to patients' needs" (Mean = 2.76, SD = 0.675). However, it was clear that nurses take time to respond to patients' needs (Mean = 2.22, SD = 0.93), which may be due to providing a service rather than nursing, or perhaps there could be a shortage of nursing staff in the hospital (Table 14).

Table 14 Effective implementation of patient-centred care

Item	Min	Max	Mean	SD
I feel equipped to care for patients efficiently and effectively	2	4	2.97	.610
In our hospital, nursing care has being provided according to patients' needs	2	4	2.76	.675
It takes reasonable time to react to patients' needs	1	4	2.22	0.928

I provide services other than nursing, such as catering, education and social support	4	4	3.48	.301
My hospital considers religious, cultural and personal issues while providing care for patients	2	4	2.70	.755

Regarding effective implementation of patient-centred care, nurses' responses on these items differed according to nurses' characteristics. Nurses' responses to the item "I provide services other than nursing, such as catering, education and social support" were significantly different according to years of experience (Chi-Square = 116, df = 4, P = 0.001), gender (Chi-Square = 57, df = 1, p = 0.001) and age (Chi-Square = 126, df = 1, p = 0.001), albeit not by hospital (Chi-Square = 1.47, df = 1, p = 0.23). Regarding their responses to the item "I feel equipped to care for patients efficiently and effectively," there were significant differences according to years of experience (Chi-Square = 125.85, df = 2, p = 0.000), gender (Chi-Square = 57, df = 1, p = 0.000) and age (Chi-Square = 126, df = 3, p = 0.000). However, no significant difference was found between hospitals regarding this item (Chi-Square = 147, df = 1, p 0.225).

Quality of care within hospitals in Saudi Arabia

Nurses' responses to the quality of care within their hospitals revealed that they were satisfied with the quality of care provided to patients. Quality of care was assessed in terms of the following procedures of quality assurance, working through teams and ethics principles while providing care. Nurses' responses showed satisfaction with all items, with the top three being: "The hospital applies quality control measures" (Mean = 3.4, SD = 1.3), "Ethical issues are considered while providing healthcare in terms of respect for patients' humanity" (Mean = 3.40, SD = 1.2) and "The hospital operates government quality procedures" (Mean = 3.36, SD = 1.4).

Table 15 Care within hospitals in Saudi Arabia

Item	Min	Max	Mean	SD
The hospital operates government quality procedures	1	4	3.36	1.349
The hospital applies quality control measures	1	4	3.40	1.291
The hospital operates a quality control department	1	4	3.20	1.376
Healthcare provision at my hospital is reasonably quick according to patient condition	1	4	2.36	1.349

Ethical issues are considered while providing healthcare in terms of respect for patients' humanity	1	4	3.40	1.291
The hospital has a qualified, multidisciplinary team to deliver high-quality care to patients with different and complicated health conditions	1	4	2.80	1.376
I am aware of individual needs and requirements while providing care for patients	1	4	3.1	1.349

Nurses with different demographic characteristics also differed in their responses on the items regarding the quality of care within hospitals in Saudi Arabia. These responses to the item “The hospital applies quality control measures” differed significantly according to years of experience (Chi-Square = 131.5, df = 3, p = 0.000) and gender (Chi-Square = 131.5, df = 3, p = 0.000), but not according to hospital (Chi-Square = 131.5, df = 3, p = 0.225). Regarding nurses’ responses to the item “Ethical issues are considered while providing healthcare in terms of respect for patients’ humanity”, there was a significant difference according to years of experience (Chi-Square = 133.5, df= 3, p = 0.000), but not with gender (Chi-Square = 132.5, df = 3, p 0.225) or hospital (Chi-Square = 131.5, df = 3, p 0.22). Finally, the item “The hospital operates government quality procedures” was significantly different according to years of experience (Chi-Square = 131.5, df = 3, p = 0.000) and gender (Chi-Square = 111.73, df = 3, p = 0.000), with no significant difference found between hospitals (Chi-Square = 111.73, df = 3, p = 0.225).

Barriers to improving quality of care

Adding to quality of care, the nurses were also asked if they perceived any barriers to implementing quality measures. Twelve items were included in the questionnaire, with the top three barriers agreed by nurses being: “Shortage of nurses will affect the quality of care in my department” (Mean = 3.8, SD = 1.06), “Language and communication may be barriers to the process of quality improvement” (Mean = 3.76, SD = 0.976 and “Staff are busy in administrative roles which limit their time working toward quality of care improvement” (Mean = 3.60, SD = 1.001).

Table (16) shows details on items concerning barriers to quality of care.

Table 16 Barriers to improving quality of care

Item	Min	Max	Mean	SD
Shortage of nurses will affect the quality of care in my department	1	4	3.80	1.06
Language and communication may be barriers to the process of quality improvement	1	4	3.76	0.976
Lack of staff knowledge may hinder quality improvements	1	4	2.20	1.06
Lack of in-service training might be a barrier to quality improvements	1	4	2.20	0.976
Lack of staff experience is a factor influencing TQM	1	4	3.22	1.376
Lack of time for staff to provide training in TQM	1	4	3.1	1.376
Staff are busy in administrative roles which limit their time working toward quality of care improvement	1	4	3.60	1.001
We face difficulty in educating some patients in relation to quality improvement	1	4	2.90	1.376
There is a lack of motivation from administration for better healthcare delivery and improving the quality of care	1	4	3.51	1.8
The way the organisation is administered is a barrier to quality improvement	1	4	2.20	1.376
Lack of in-service training might be a barrier to quality improvement	1	4	2.50	0.976
Lack of staff experience is a factor influencing TQM	1	4	2.80	0.876

Nurses' responses on items related to barriers to improving the quality of care also differed according to demographic characteristics of nurses in the study. Responses on all items differed with years of experience with none of them differed between hospitals. The item "Shortage of nurses will affect the quality of care in my department" was significantly different according to years of experience (Chi-Square = 116, df = 3, p = 0.000), gender (Chi-Square = 57, df = 1, p = 0.000) and age (Chi-Square = 126, df = 3, p = 0.000), with no significant difference between hospitals (Chi-Square = 147, df = 1, 0.225). Regarding language and communication, the item "Language and communication may be barriers to the process of quality improvement" was significantly different according to years of experience (Chi-Square = 126, df = 3, p = 0.001),

gender (Chi-Square = 111, df = 1, p = 0.001) and age (Chi-Square = 116, df = 1, p 0,000), with no difference found in different hospitals (Chi-Square = 116, df = 1, p = 0.225). Finally, the item “Staff are busy in administrative roles which limit their time working toward quality of care improvement” was significantly different according to years of experience (Chi-Square = 1116, df = 3, p = 0.001), gender (Chi-Square = 111, df = 1, p = 0.001) and age (Chi-Square = 126, df = 1, p 0,000), with no significant difference found in different hospitals (Chi-Square = 112, df = 1, p = 0.3).

The role of organisational communication in TQM

Communication among staff within the organisation was also considered important to nurses in developing a well-structured quality management programme. One hundred and ten (50%) of nurses indicated that communication for the purposes of TQM is carried out at the hospital annually. Findings of the study showed that TQM was part of the healthcare delivery system in Saudi Arabia, with 103 (46.8%) indicating that TQM communication is conducted every six months, whereas a small number of nurses 7 (3.2%) stated that it is conducted daily. Interestingly, none of nurses thought that TQM communication is carried out at the hospital every week or every month, with both categories recording no responses.

Participants were asked for their opinions on how communication was active within the hospital and with other agencies and organisations. It was clear that communication channels were active among all hospital departments as well as in the MOH hospitals. Nurses agreed on the majority of items on communication, with the top three being: “There is communication on TQM between mine and other departments in the MOH” (Mean = 3.65, SD = 0.566), “There are regular communications on policy and regulations between the MOH and my hospital” (Mean = 3.58, SD = 0.580) and “There is regular knowledge exchange between my hospital, other hospitals and healthcare delivery institutions in the country” (Mean = 3.53, SD = 0.527). The table below (17) shows details of nurses’ responses to communication items.

Table 17 The role of organisational communication in TQM

Item	Min	Max	Mean	SD
There are regular communications on policy and regulations between the MOH and my hospital	2	4	3.58	.580
There is communication on TQM between mine and other departments in the MOH	3	4	3.65	.566
There is regular and active communication through management channels (top ↔down) (management to nurses/other health professionals) at my hospital	3	4	3.47	.585

There is regular knowledge exchange between my hospital, other hospitals and healthcare delivery institutions in the country	3	4	3.53	.527
Personally, I try to build rapport with patients	3	4	3.46	.552
There is an independent department for TQM (Advisory Board) in my hospital	1	4	2.65	.701
There is effective communication between the TQM department and other departments within my hospital	1	4	2.23	.939

Again, the years of experience as also an influencing factor in organisational communication in TQM from nurses' perspective. These items were compared with the nurses' demographic characteristics years of experience, age, gender and hospital. The item "There is communication on TQM between mine and other departments in the MOH" differed significantly according to years of experience (Chi-Square = 116, df = 3, p = 0.000), age (Chi-Square = 126, df = 4, p = 0.000) and gender (Chi-Square = 57, df = 1, p = 0.000), but not according to hospital (Chi-Square = 147, df = 1, p = 0.225). The item "There are regular communications on policy and regulations between the MOH and my hospital" also differed significantly according to years of experience (Chi-Square = 126, df = 4, p = 0.001), age (Chi-Square = 126, df = 4, p = 0.000) and gender (Chi-Square = 68, df = 1, p = 0.01), but not to hospital (Chi-Square = 131, df = 1, p = 0.205). Finally, the item "There is regular knowledge exchange between my hospital, other hospitals and healthcare delivery institutions in the country" differed significantly according to years of experience (Chi-Square = 126, df = 4, p = 0.001), hospital (Chi-Square = 131, df = 1, p = 0.005) and gender (Chi-Square = 68, df = 1, p = 0.01), but not to age (Chi-Square = 111, df = 3, p = 0.201).

Competency development and staff training

According to the review studies, training was important in enhancing nurses' skills toward higher quality of care. Within this study, they were asked about items reflecting their views on the importance of training in different management areas. They mostly agreed on all ten items, with the three most popular being: "More management training required" (Mean = 3.57, SD = 0.655), "The hospital supports nurse training in TQM through incentives" (Mean = 3.48, SD = 0.585) and "More leadership training required" (Mean = 3.40, SD = 0.616).

Table 18 Competency of development and staff training

Item	Min	Max	Mean	SD
Training is needed, to achieve higher quality	2	4	3.31	.769
Educational resources are required to improve quality of care	2	4	3.08	.918
More training is necessary to enhance customer service skills	2	4	3.29	.743
More leadership training required	2	4	3.40	.616
More management training required	2	4	3.57	.655
Government investment in nursing training programmes is necessary and valuable	2	4	2.95	.964
Training on TQM is available for staff in my hospital	2	4	2.75	.898
The hospital supports nurse training in TQM through incentives	3	4	3.48	.585
Investment is needed for TQM training for other specific programmes	3	4	3.36	.535
Training coaches need to be part of TQM	2	4	2.65	.965
TQM and its trainees should be followed up through regular evaluations, to update continuous training	2	4	2.56	1.003

items related to competency development and staff training were compared according to years of experience, age, gender and hospital. The item “More management training required” differed significantly according to years of experience (Chi-Square = 116, df = 3, p = 0.000), age (Chi-Square = 126, df = 3, p = 0.000) and gender (Chi-Square = 59, df = 3, p = 0.000), with no significant difference found for nurses in different hospitals (Chi-Square = 1.47, df = 3, p = 0.223). Regarding the item “The hospital supports nurse training in TQM through incentives,” there were significant differences according to years of experience (Chi-Square = 113, df = 3, p = 0.000), age (Chi-Square = 126, df = 3, p = 0.000) and gender (Chi-Square = 62, df = 3, p = 0.000), with no significant difference for hospitals (Chi-Square = 131, df = 3, p = 0.227). The last highest item “More leadership training required” differed according to years of experience (Chi-Square = 111, df = 3, p = 0.000), age (Chi-Square = 126, df = 3, p = 0.01) and gender (Chi-Square = 116, df = 3, p = 0.00), with no significant difference found for hospitals (Chi-Square = 147, df = 3, p = 0.224).

Nurses in different hospitals differed in their responses regarding TQM meetings to improve quality of care in their settings. The table below show these responses.

Similarly, when nurses from different hospitals were asked about the frequency of training, they provided different responses, which may highlight different training strategies for hospitals (Table 19).

Table 19 Frequency table indicating nurses' opinions on frequency of training

Duration	Frequency of nurses	Percent (%)
Daily	9	4.1
Weekly	57	25.9
Monthly	119	54.1
Yearly	35	15.9
Total	220	100

Nurses' with more experience demonstrated lower need for training compared to those with those with lower years of experience. More than half, i.e. 117 (53.2%), of nurses indicated that training should be provided to hospital staff on monthly basis. 76 (34.5%) indicated weekly, whereas 18 (8.2%) and 9 (4.1%) of nurses thought staff training should be provided on annually and daily basis respectively. These responses were associated with or influenced by the number of years' professional experience of the nurses. The results of a Chi-square test for independence indicated a statistically significant association between the number of years of professional experience and responses to the frequency of hospital staff training (Chi-Square = 12, df = 3, p = 0.02). Bonferroni adjustment showed that nurses with more professional years of experience indicated that they require staff training to be provided at less regular intervals compared to nurses with fewer years of professional experience (p=0.03).

With way of training, the majority of nurses preferred group training but younger nurses preferred online training. One hundred and fifteen (52.3%) nurses indicated that they prefer to be trained through group learning, 76 (34.5%) stated that they prefer online training and 29 (13.2%) indicated that they prefer to be trained through face-to-face training. The results of a Chi-square test for independence indicated a statistically significant association between a nurse's age and how they prefer to be trained (Chi-Square = 8, df = 4, p = 0.04). Bonferroni adjustment showed that the younger nurses were the more likely to prefer online training (p =0.001).

When nurses were asked how often their salary should be reviewed, they differed in their responses with 114 (51.8%) indicated every six months, 85 (38.6%) indicated monthly, whereas a few, 21 (9.6%), indicated annually. The results of a Chi-square test for independence indicated a statistically significant association between the age of the nurses and their responses to how often their salary should be reviewed (Chi-Square = 8, df = 4, p = 0.02), as well as the number of professional years of experience (Chi-Square = 8, df = 3, p = 0.04). However, there was no statistically significant association between gender and responses to how often salary should be reviewed Chi-Square = 2, df = 1, p = 0.29).

Patients' Perceptions of Service Quality

Patient demographics

Data were collected from 350 patients from the King Fahad Medical city (KFMC) (165/47.1%) and the King Abdulaziz University Hospital (KAUH) (185/52.9%). The sample comprised 251 males (71.7%) and 99 females (28.3%) (Figure 1). The age of the patients ranged from 18-92, with the majority falling into the 31-40 age group (Figure 25). The table below (20) shows details of the patients' characteristics.

Table 20 Demographic characteristics of the patients

Category	Range	Frequency of patients	Percent (%)
Hospital	KFMC	165	47.1%
	KAUH	185	52.9%
	Total	350	100%
Age	18-20	18	5.1%
	21-30	34	9.7%
	31-40	120	34.3%
	41-50	86	24.6%
	>50	92	26.3%
	Total	350	100%
Gender	Male	251	71.7%
	Female	99	28.3%
	Total	350	100%

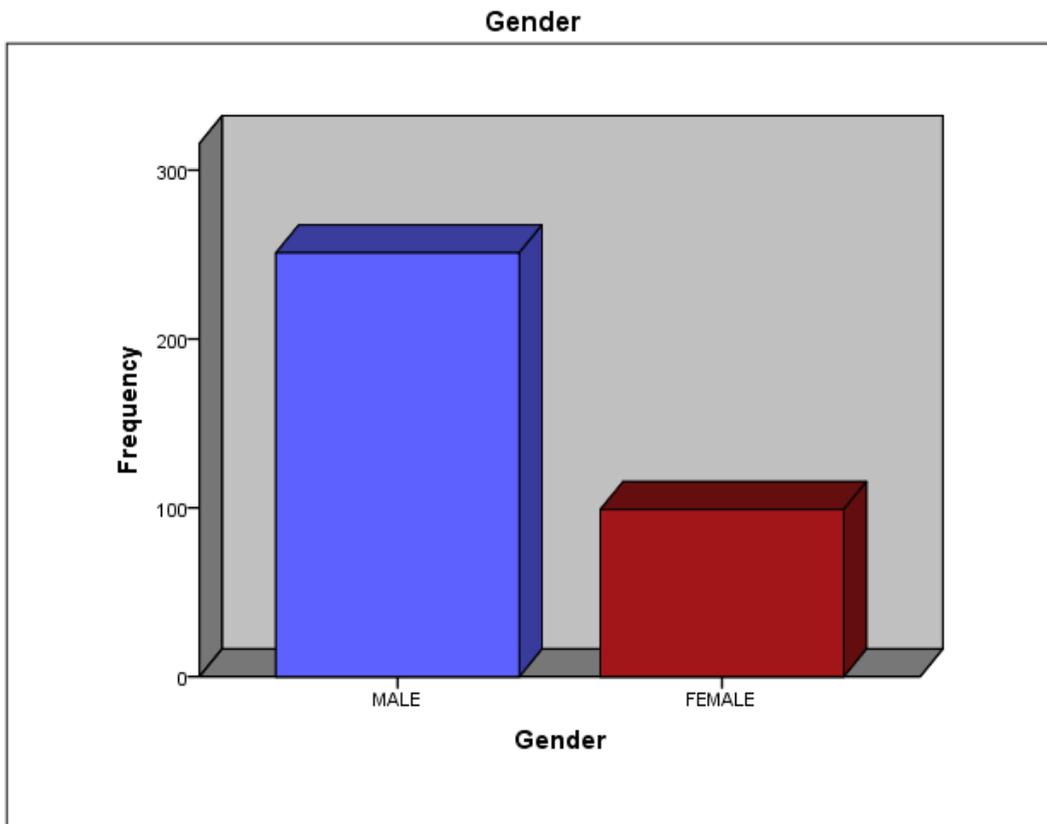


Figure 25. Distribution of patients across hospitals

Hospital patient-centered care

When patients were asked whether they had been admitted to the hospital, 100 (28.6%) had been admitted to different wards within the previous 12 months and 250 (71.4%) had not. More than half of those who were admitted were in hospital for 11-24 hours and 36.3% for 6-10 hours, with less than 15% admitted for 5 hours or less.

Patients' perceptions of organisational communication

Patients were satisfied with most of the items presented for satisfaction on organisational communication, with the highest agreements focused on: "Service is computerised, so no documents will be lost" (Mean = 3.91, SD = 0.91), "Staff in hospital usually contact me, to remind me about appointments" (Mean = 3.4, SD = 1.1) and "Staff in hospital usually send me a text message if anything necessary is needed" (Mean = 3.78, SD = 1.2). However, most of the other items agreed with a mean higher than 3, which indicates that communication is likely to be effective and satisfactory (Table 21).

Table 21 Patients' perceptions of communication effectiveness

Item	Min	Max	Mean	SD
Nurses have tight communications with patients as a way of providing care	3	4	3.35	.534
Staff have frequent communication with patients during their shift (more than two times)	2	4	3.31	.602
The hospital contacts me regularly after discharge, asking me about my health issues	1	4	2.38	1.181
Staff in hospital usually contact me, to remind me about appointments	2	4	3.84	1.1
Staff in hospital provide internet access for patients to follow up their conditions	1	4	2.38	1.2
Staff in hospital usually send me a text message if anything necessary is needed	2	4	3.78	1.2
I am able to order my medications online, to be delivered to my home	2	4	3.05	1
Service is computerised, so no documents will be lost	2	4	3.91	.91

Chi-Square was used to compare the agreed items regarding organisation communication with patients' demographic characteristics with significant difference in nurses' responses was found across these characteristics. The items "Service is computerised, so no documents will be lost" was significantly different according to all variables: hospital (Chi-Square = 1.37, m df = 1, p = 0.01), age (Chi-Square = 1.3, df = 3, p = 0.02) and gender (Chi-Square = 1.2, df = 1, p = 0.01). On the item "Staff in hospital usually contact me, to remind me about appointments," there were significant differences for patients in different hospitals (Chi-Square = 1.06.4, m df = 1, p = 0.000), age (Chi-Square = 149.4, m df = 1, p = 0.000) and gender (Chi-Square = 1.11.4, m df = 1, p = 0.000). Regarding the item "Staff in hospital usually send me a text message if anything necessary is needed," there were significant differences for patients' responses according to age (Chi-Square = 459, df = 3, p = 0.000) and gender (Chi-Square = 66.01, df = 1, p = 0.000), but not to hospital (Chi-Square = 1.14, m df = 1, p = 0.285).

Patients' satisfaction with services provided

When patients were asked about the sorts of improvements required for their hospitals, 71.1% agreed on clinical services (Table 22). There seemed to be differences of opinion between patients in different groups, as there were significant differences according to their gender (Chi-

Square 57=, df = 1, p = 0.000), age (Chi-Square 126.045= , df = 3, p = 0.000) and years for patients experience (Chi-Square 116 = , df = 3, p = 0.000). However, there was no significant difference in these responses for different hospitals (Chi-Square 1.47 = , df = 1, p = 0.225).

Table 22 Required services for improving quality

Item	Frequency	Percent
Services	7	2%
Operational	94	26.9%
Clinical	249	71.1%
Total	350	100%

They were also asked about their satisfaction with the implementation of a TQM programme, they seemed satisfied with the implementation of the program and agreed on all items with the top three items were agreeing on three main items: “When providing care, nurses recognise and respect patients’ religious, cultural and personal needs” (Mean = 3.85, SD = 1.16), “Nurses are able to answer any question patients ask, without the need to refer to any health professional” (Mean = 3.61, SD, = 0.489) and “Nurses deal with patients’ issues in a confidential way” (Mean = 3.45, SD = 0.834). Patients’ agreements with other items are presented in the table below (Table 23).

Table 23 Patients’ satisfaction with the implementation of TQM

Item	Min	Max	Mean	SD
Nurses recognise patients’ needs and deal with them in a professional way	2	4	3.02	.925
Patients do not need to wait a long time for service or care	2	4	3.34	.971
When asking nurses about things related to patients’ health, they usually refer the question to doctors	2	4	3.18	.679
Nurses are able to answer any question patients ask, without the need to refer to any health professional	4	4	3.61	.489
When providing care, nurses recognise and respect patients’ religious, cultural and personal needs	1	4	3.85	1.16
Service is quick and available all the time in the hospital	2	4	3.06	.959
Nurses give attention to every patient and to every point patients discuss	2	4	3.26	.782
Nurses deal with patients’ issues in a confidential way	2	4	3.45	.834

Chi-Square was used to compare the patients' responses on their satisfaction with implementing TQM in the settings according to hospital, age and gender group. The item "When providing care, nurses recognise and respect patients' religious, cultural and personal needs" was significantly different for age groups (Chi-Square = 459, df = 3, P = 000) and gender (Chi-Square = 66, df = 1, p = 0.000), but not for hospitals (Chi-Square = 1.14, df = 1, p = 0.285). The item "Nurses are able to answer any question patients ask, without the need to refer to any health professional" differed significantly according to age (Chi-Square = 459.73, df = 3, p = 0.000) and gender (Chi-Square = 16.5, df = 1, p = 0.000), but not hospitals (Chi-Square = 1.2, df = 1, p = 0.001). The third item "Nurses deal with patients' issues in a confidential way" was significantly different for all variables: age (Chi-Square 325=, df = 3, p = 0.001), gender (Chi-Square 57 =, df = 1, p = 0.001) and hospital (Chi-Square = 163.85, df = 3, p = 0.000).

Patients' perceptions of TQM practice

Patients were asked about their perceptions of practicing total quality management in their wards. They agreed with all six items related to providing quality services, with the top three items being: "TQM is necessary to set guidelines for higher quality of patient care" (Mean = 3.57, SD = 0.5), "TQM can increase patients' satisfactory care" (Mean = 3.49, 0.44) and TQM is vital to updating patient care policy" (Mean = 3.49, SD = 0.51). It was not surprising that 286 (81.7%) patients preferred regular incentives for nurses to provide higher quality of care (Table 24).

Table 24 Patients' perceptions of TQM practice

Item	Min	Max	Mean	SD
TQM is necessary to set guidelines for higher quality of patient care	3	4	3.57	.508
TQM can increase patients' satisfactory care	3	4	3.49	.445
TQM can ensure more comprehensive nursing care, thereby meeting individual patient needs	3	4	3.35	.534
TQM can save time and money for both the hospital and the patient through decreasing readmissions due to poor quality care	2	4	3.31	.602
TQM can work with hospital management	1	4	2.38	1.181
TQM is vital to updating patient care policy	3	4	3.49	.512

Chi-Square was used to show how these responses differed across hospitals and with nursing characteristics. The item “TQM is necessary to set guidelines for higher quality of patient care” was significantly different for hospitals (Chi-Square 1.095= , df= 1, p = 0.001), age (Chi-Square = 449, df = 3, p = 0.001) and gender (Chi-Square = 180.76, df = 2, p = 0.000). The item “TQM can increase patients’ satisfactory care” differed significantly according to hospital (Chi-Square = 1.22, df = 1, p = 0.000), age (Chi-Square = 153.2, df = 2, p = 0.000) and gender ((Chi-Square = 59.8, df = 1, p = 0.01). Regarding the item “TQM is vital to updating patient care policy,” there were significant differences in patients’ responses for hospital (Chi-Square = 1.8, df = 1, p = 0.285, age (459.7, df = 3, p = 0.000) and gender (Chi-Square = 73, df = 2, p = 0.000).

Role of staff training from the patients’ perspective

The vast majority of patients agreed and recognised the importance of training for nurses, in order to help improve the quality of service. Patients agreed on all items related to nurses’ training, with the top three items being: “Training on TQM can improve nurses’ skills in communicating with patients and their families” (Mean = 3.48, SD = 0.50), “Government should support staff training, to achieve the optimum level of management skills” (Mean = , SD) and “Nurses’ pay should be increased with training” (Mean = 3.45, SD = 0.834) (Table 25).

Table 25 Patients’ perceptions of nurses’ training on TQM

Item	Min	Max	Mean	SD
Training is important, to enable nurses to deal with medications and their actions	2	4	3.12	.999
Training is important, to help nurses learn about health problems and how to deal with them	1	4	3.05	1.087
Training on TQM can improve nurses’ skills in communicating with patients and their families	4	4	3.48	.500
Training on TQM can show nursing managers their scope of practice	2	4	3.08	.681
Staff require more quality training	2	4	3.40	.730
Government should support staff training, to achieve the optimum level of management skills	2	4	3.47	.736
Nurse’s pay should be increased with training	2	4	3.45	.834

Patients’ responses were not significantly different between hospitals with all of them agreed that training on TQM would improve skills in communicating with patients and their families,

(Chi-Square = 1.01, df = 1, p = 0.28). However, these responses were significantly different according to age (Chi-Square = 449, df = 3, p = 0.00) and gender (Chi-Square = 65, df = 1, p = 0.000). On the item “Government should support staff training, to achieve the optimum level of management skills,” the patients’ views were significantly different according to age (Chi-Square = 458, df 3, p = 0.000) and gender (Chi-Square = 54, df = 1, p 0.001), but not to hospital (Chi-Square = 1.1, df, 1, p 0.286).

Nevertheless, when patients were asked whether they should be involved in implementing nurses’ training programmes, 279 (79.7%) answered “No.” However, they would provide any information that may help nurses improve quality of care. The majority preferred to be contacted electronically by emails regarding any enquiries (274/78.3%), with 73/20.9% preferring written feedback. This was significantly different according to age (Chi-Square = 339.26, df = 2, p = 0.000) and gender (Chi-Square = 66, df = 1, p = 0.000), but not to hospital (Chi-Square = 1.14, df = 1, p = 0.279).

Related barriers to improving the quality of care

While patients agreed in regard with importance of improvement of quality and the training for nurse’s staff, they also agreed that barriers might play an important role in hindering these elements. Ten questions regard with barriers to improving quality were all agreed by patients, with the highest three being: “We cannot always find nurses, as they take part in other activities apart from nursing, such as management” (Mean = 3.86, SD = 1.15), “Nurses sometimes use language which is not understandable, which confuses us” (Mean = 3.49, SD = 0.717) and “Staff can seem unprofessional at times, when they deal with things individually, which means that they are not trained for quality management” (Mean = 3.48, SD = 0.5) (Table 26).

Table 26 Patients' perceptions of barriers to improving quality

Item	Min	Max	Mean	SD
We cannot see a sufficient number of staff long enough to provide proper care	2	4	3.11	.998
There are high numbers of patients on the wards, so there need to be higher numbers of nurses	1	4	3.07	1.064
Staff can seem unprofessional at times, when they deal with things individually, which means that they are not trained for quality management	4	4	3.48	.500
We face difficulty while interacting with hospital staff	2	4	3.11	.644
Staff in this hospital do not talk in a friendly manner with patients	2	4	3.41	.712
Nurses sometimes use language which is not understandable, which confuses us	2	4	3.49	.717
Nurses in this hospital lack the knowledge to answer our questions	2	4	3.46	.813
We cannot always find nurses, as they take part in other activities apart from nursing, such as management	1	4	3.86	1.149
Nurses in this hospital are not motivated to provide a quality service to patients	2	4	3.07	.954
Cultural issues such as gender, religion and education may prohibit nurses from talking to patients about their health conditions	2	4	3.33	.720

Patients' responses on barriers to improve quality of care differed across hospitals and their characteristics with Chi-Square was used to compare these responses. For example, the item "We cannot always find nurses, as they take part in other activities apart from nursing, such as management" significantly differed according to age (Chi-Square = 446.2, df = 3, p = 0.01) and gender (Chi-Square = 65.9, df = 1, p = 0.001), but not to hospital (Chi-Square = 1.1, df = 1, p = 0.280). Similarly, for the item "Nurses sometimes use language which is not understandable, which confuses us," there were significant differences for age (Chi-Square = 451.2, df = 3, p = 0.000) and gender (Chi-Square = 45.9, df = 1, p = 0.01), but not for hospital (Chi-Square = 1.3, df = 1, p = 0.180). And for item three, "Staff can seem unprofessional at times, when they deal with things individually, which means that they are not trained for quality management," there were significant differences according to age (Chi-Square = 443.3, df = 3, p = 0.001) and gender (Chi-Square = df = , p =), but not to hospital (Chi-Square = 1.09, df = 1.9, p = 0.281).

Table 27 Summary of the main findings between patients and nurses

Main finding	Nurses' perspectives	Patients' Perspectives
Demographic characteristics	<ol style="list-style-type: none"> 1. Hospital = 101 KFMC and 119 from KAUH 2. Age = Majority 13-40 years 3. Gender = 54 males and 166 females 	<ol style="list-style-type: none"> 1. Hospital = 165 from KFMC and 185 from KAUH 2. Age = Majority were aged 31-50 3. Gender = 251 males and 99 females
Satisfaction with quality of service	<ol style="list-style-type: none"> 1. Nurses agreed with standards of practice in hospitals which meet patients' needs 2. TQM is implemented in their hospitals 3. TQM is implemented on the national level in Saudi Arabia 4. Nurses were satisfied with the job they do 5. There is sufficient information and guidelines about TQM in Saudi Arabia, and TQM follows a strategic plan for development consistent with the MOH's vision and policies in Saudi Arabia 6. Providing care differed with age, gender and experience but not hospitals, which means that it may follow a national policy applied throughout Saudi Arabia 	<ol style="list-style-type: none"> 1. This was also in all hospitals, with differences found according to the age and gender of the patients
Effectiveness of implementation of patient-centred care in Saudi Arabia	<ol style="list-style-type: none"> 1. Nurses felt equipped to provide care as well as other services such as catering, education and support. 	<ol style="list-style-type: none"> 1. Patients agreed with the computerisation of health services, so that no documents will be lost 2. Staff remind them about appointments

Quality of care in Saudi Arabia	<ol style="list-style-type: none"> 1. All quality measures differed according to age, gender and experience but not hospital 2. Hospitals apply quality control measures 3. Ethics are considered while providing care for patients 	<ol style="list-style-type: none"> 1. Patients agreed with the necessity of setting guidelines to build and improve quality service on the national level 2. TQM can increase patients' satisfaction with care 3. Nurses recognise patients' religion and beliefs when providing care 4. Nurses deal with patients in a confidential way, but this was different between hospitals 5. TQM is vital to updating policy on patient care
Barriers to provide high-quality care	<ol style="list-style-type: none"> 1. Shortage of nurses working in hospitals 2. Language and communication issues in hospitals, as they are all multicultural settings 3. Administrative roles might interfere with nursing activities 4. Again, all barriers are related to nurses (age, gender, experience) but not hospitals. 	<ol style="list-style-type: none"> 1. Nurses were busy with other activities and not available all the times 2. Nurses sometimes speak languages which are not understandable to patients 3. Nurses do not deal with things in a professional way, which means that they need training on management
Competency development and staff training	<ol style="list-style-type: none"> 1. More management training required 2. Hospitals support training through incentives 	<ol style="list-style-type: none"> 1. Training on TQM could improve nurses' skills in communicating with patients 2. Government should support training of staff, to achieve the optimum level of management skills 3. Patients were not interested in being involved in implementing nurse training programmes, but they would be happy to be contacted for any help

Conclusion

The above quantitative findings indicated that there are many areas in which hospitals underperform in terms of TQM. In many areas, according to both nurses and patients, hospitals need to make significant improvements and instigate training on management on the national scale. In terms of outcomes and the perceptions of both nurses (internal customers) and patients (external customers), both were satisfied, i.e. nurses with their jobs and patients with respect to the service they received from the hospitals, but they suggested training and further incentives to apply TQM programs more extensively.

Communications was an area which required extra work, based on ratings by both nurses and patients, although the nature of communications nurses referred to may be more at the strategic level, while the communication patients refer to are more at the operational and healthcare professional-patient interfaces. Beyond these areas, as per the discussions articulated above, many other areas require improvement, to enhance TQM practice within hospitals. The following section provided A critical conversation about the outcomes in the frame of reference of the present literature is presented in this chapter, and what will be further added to this research.

CHAPTER SIX: DISCUSSION

Introduction

The main aim for this study was to explore existing TQM practice within the context of Saudi Arabian public hospitals, by drawing on both provider and patient perspectives. As noted earlier, the healthcare system of any country is one of its most critical resources and requires a lot of attention by those in authority, to ensure the good health and wellbeing of its resident population. Therefore, allocated resources must be effectively optimised for the benefit of all. In the Saudi context, the government has clearly identified as a priority and has invested extensively in improving the quality of care provision to its nationals, who receive care free of charge.

The Saudi government is both the major provider and financier of healthcare services in the kingdom, and thus it is imperative that it optimises its returns on ensuring there is a high degree of productivity and efficiency which leads to high-quality care and, ultimately, to patient satisfaction. In Saudi Arabia it's been noted that needs to take a more holistic view, beyond the typical emphasis on diagnosis and treatment, but it must now consider service performance or quality of care (Alghamdi, 2014), since the endorse a more customer-oriented focus and increase competitiveness.

This study examined TQM practices with a view to assessing their impact on service outcomes. This assessment was based on the perspectives of providers and patients. The results were collected via a two-stage research design: stage one involved three levels interviews with TQM managers and head nurses (governmental and managerial level), and stage two involved questionnaires with staff nurses and patients (ground level). The major findings of the study will be explored and addressed below with respect to the objectives and research questions put forth. The objectives are reiterated, and the subsequent discussion will incorporate research questions presented earlier on in the research.

The following objectives were pursued:

1. To explore the concept of TQM in Saudi Arabian public hospitals and the extent to which it is understood and implemented in practice.
2. To investigate context-specific issues that affect the effective implementation of TQM practices in Saudi Arabian public hospitals.
3. To identify the critical success factors needed for high-quality healthcare provision in Saudi Arabian public hospitals from the perspectives of providers (management and nurses) and patients.

4. To study the critical link between TQM practice and the provision of high-quality care to consumers in Saudi Arabian public hospitals, and to make recommendations for effective implementation.
5. To determine the implications of the findings (in 1, 2, 3 and 4 above) for current theory about the nature of the relationship between TQM and quality of healthcare provision in Saudi and other country contexts.

Both the qualitative and a quantitative viewpoint (Table 6.1) in depth and will cover all themes, linking them with the literature review and updated studies.

Table 28 Qualitative and quantitative findings summary of the research

Stage one main theme	Summary of significant quantitative responses	
	<i>Nurse</i>	<i>Patient</i>
1- Levels of understanding of TQM practice	Indicates strong agreement	Not statistically significant
2- Inter-institutional communication strategies (IICS)	Strong agreement confirmed by 85%, there is statistical significance among nurses with 6-10 years' professional experience (Md = 25, n =78)	Strong agreement confirmed by 98%, there is no significance between male and female nurses patient (Md = 22, n =251)
3- Enhanced competency development and training	There is statistical significance	There is statistical significance
4- Managerial commitment and leadership	There is statistical significance	No statistically significance
5- Related barriers to improving the quality of care	Strong agreement for both and there is no statistical significance for nurses at both hospitals	Strong agreement for both and there is no statistical significance for nurses at both hospitals

Qualitative and quantitative findings from this study show that TQM has a substantial impact on enhancing the quality of care in KSA hospitals, but its implementation is lacking. Qualitative findings reveal that nurses (internal customers) understand TQM practice, while patients (external customers) have little knowledge in this regard. Quantitative variables on TQM practice clarify further the qualitative findings by revealing that 93.6% of nurses suggest (via a weak agreement score of 16-20) that TQM implementation in

hospitals is not done effectively. The nurses' quantitative results also correspond with patients believing that TQM exists in KSA hospitals by a majority (a weak agreement score of 17). Qualitative results also underscore the importance of human resource training and development as a core part of TQM success in organisations such as hospitals. Nurses' quantitative input into training support HR development role in TQM scored medium agreement, while about 70% of patients agreed with the need for staff training. Effective communication, especially inter-institutional, was a significant outcome from the qualitative results that is explained further via quantitative findings. From the quantitative data, the majority of patients (98%) strongly perceived that organisational communication effectiveness was essential for quality care, whereas 85% of nurses strongly agreed with the importance of effective communication. Overall, both qualitative and quantitative results indicate that nurses and patients feel significant TQM success factors need to be addressed satisfactorily, in order to increase the quality of care in KSA.

Current status of TQM implementation in Saudi healthcare

From the literature presented in this current study, it was postulated that there is increasing concern about the quality of healthcare, especially by patients in the KSA (Alaloola and Albedaiwi 2008; Alghamdi 2014). The studies also pointed out critical challenges such as low job satisfaction among nurses, poor work-life balance (Almalki et al., 2012) and moderately satisfied patients (Ishfaq et al., 2016) as critical challenges facing TQM in the kingdom's medical facilities. From the study results, TQM application is characterised by negative feedback. It is clear that most of the hospital employees, especially nurses, have a huge workload and are prone to low pay and poor professional support. Alasmari and Douglas's (2012) KSA study outlined the main danger of overworking nurses manifesting as reduced patient safety. Qualitative results also indicate a lack of understanding of strategic visioning and policy planning at the Saudi MOH, which also influences quality of care.

Both nurses and patients rated the implementation of TQM in KSA hospitals as poor. Reviewed studies, however, placed nurses and patients as critical contributing factors to the successful implementation of TQM in health (Ali, 2005; Munir and Elhuni, 2014). Nevertheless, most Saudi hospitals involved in TQM research studies agree that TQM or quality improvement is essential and required. Similar findings were noted by Atallah's (2013) study in the KSA, which reported that quality and TQM implementation feedback in Saudi hospitals, though varying among hospitals, was poorly rated. Saudi healthcare organisations also appear not to be aligning the administration or strategic management of

their activities with critical TQM success factors, a possible reason behind the poor quality of service and low job satisfaction among employees. On attempting to identify the main success factors that hospitals in KSA can utilise to improve healthcare quality of care, Rad (2013) postulates that Saudi healthcare organisations understand that, through TQM, it can be achieved through improved relations and the development of employees and managers. Rad's argument reinforces the reviewed studies' suggestions that the management of internal and external stakeholders, employee involvement, education and training are critical factors in TQM implementation (Ali, 2005; Munir and Elhuni, 2014).

Generally, TQM implementation has admittedly made significant strides in Saudi healthcare, but it is still not sufficient. Atallah et al. (2013) found that more than 85% of patients they are satisfied with the health services that provided, although fewer than 50% of them were not satisfied with some aspects, such as information giving, language, and attentiveness. It is therefore clear that some health sector aspects require advancing, in order to improve overall TQM in the KSA (Abdulrahman, 2012).

Patient co-operation and quality improvement

Patients are at the centre of hospital quality management. As identified in the literature, accreditation on quality considers patients (customers) and patient culture as critical factors in effecting safety and quality of care in the KSA (Al-Awa et al., 2011). The study results indicate that patients strongly agree that TQM, or an improvement in the quality of services in hospitals, is essential to their satisfaction. The findings align with the literature highlighting that the success of TQM implementation has to focus on both internal (nurses and other hospital staff) and external customers (patients) (Rad and Hossein, 2006). As patients are the targets of quality of care, their participation is important so that they can present their own views on the subject. As stated before, TQM is a customer-focused system that requires hospitals to understand and meet patients' needs and expectations (Chan, 2001).

Patient co-operation contributes to quality improvement. Alasmari and Douglas (2012) hypothesised that this notion is important, because quality cannot be realised without the customer's (patients) involvement in the delivery process. The patient's role in improving quality is essential for hospitals looking to identify what needs or expectations they have to fulfil and which will result in customer loyalty and satisfaction (Mehra and Ranganathan, 2008). The ultimate outcome of patient focus (customer focus) is continuous improved health. One study explains that patients improve their outlook and become more responsible concerning their own health outcomes (Avsar and Kasikci, 2011). Thus, the

axis of quality hospital service is patients, meaning that they play a fundamental role in achieving the effective implementation of TQM. Additionally, they play a critical role in communicating how quality can be improved.

Employee satisfaction and quality of care

The literature outlined that employee participation, teamwork, employee dedication to customer focus and their training and development are critical success factors in implementing TQM. These aspects work alongside employee satisfaction, which often determines customer (patient) satisfaction (Zairi et al., 2005). Job satisfaction is of interest to this research study, because it influences the eventual outcomes of quality of care and patient satisfaction. As such, it affects TQM practice, and since job satisfaction relates strongly to service delivery and the human element, it is of noted relevance. Abualrub and Alghamdi (2012) indicate that by improving the satisfaction level for nurses the challenges such as quality outcomes and patient satisfaction can be achieved, in addition to greater job retention of nurses in hospitals. Other studies state that the services given to patients will improve with the increase in job satisfaction (Al-Aameri, 2000; Mrayyan, 2006).

In this study, particularly in the quantitative research, low levels of TQM practice were reported. Low job dissatisfaction, as reported by nurses personally, as well as weak quality of care and low satisfaction with hospital services, as reported by patients, primarily point to the significance of employee satisfaction for quality delivery. Similar patient dissatisfaction has been reported in other studies (Ali and Mahmoud 1993, Al-Doghaither 2004, Abualrub and Alghamdi 2012) as well as the links between quality of care and patient satisfaction (Alghamdi, 2014) and TQM and employee satisfaction (Boon Ooi et al., 2007) in the Saudi context. The study's data findings and past research claims therefore imply that employee or job satisfaction is an important factor in quality healthcare delivery or TQM practice in hospitals. Job satisfaction is determined by a host of factors that the author of this thesis believes are core and integrative to the critical implementation of TQM, including good leadership, training and development, effective communication and so on.

Influence of organisational behaviour and culture on quality improvement

The building blocks of an organisation's behaviour include job satisfaction, individual and group personalities, perceptions of leadership, motivation and power, all of which have been discussed in the literature as affecting quality management (Maull et al., 2001). To improve the quality of care in health facilities, it is important that organisations embrace sustainable quality management systems and quality operations. Thus, a hospital's internal

behaviour and culture should present the optimum conditions to ensure high levels of hospital staff involvement in the process of increasing quality.

Organisational behaviour and culture contribute hugely to quality improvement, especially through hospital staff proactively managing patients' experiences to ensure satisfaction. Merging quality management and healthcare organisation behaviour involves modifying organisational culture (Davies et al., 2000). Leadership has to engage in activities that will help nurses and other staff modify their culture in a manner that improves the quality of the patient experience. Healthcare leadership must help hospital employees in this regard; otherwise, they will resist change if they view it as unnecessary (Cunningham et al., 2002).

TQM and quality care practice in Saudi public hospitals

In conducting this research, five major themes emerged, each with its own sub-themes that encapsulated the major findings and addressed the research objectives and set forth in the study (Diagram 9). Overall, it appears that TQM in the KSA's healthcare sector is still in the early stages of development despite the longstanding commitment of the Saudi government in terms of strategic focus and planning through extensive investment over the years. The following discussion about TQM practice in the KSA is founded on the key study themes, namely (1) Levels of understanding of TQM practice, (2) Inter-institutional communication strategies (IICS), (3) Enhanced Competency development and training, (4) Level of management commitment and leadership and (5) Related barriers to improving the quality of care. The discussion explores the themes in relation to present and future practice of TQM in KSA healthcare and achieving patient satisfaction.

Level of managers' understanding of the TQM practice

Total quality is the preferred concept according to the qualitative findings within the TQM managers that took part in the study. The following two reasons form the base for inclination of TQM managers towards this technique. The first reason is that TQM has emerged as the most trendy management concept, thus making its way into MOH and the government hospitals in Saudi healthcare service industry. Then the TQM managers that prefer TQM mostly are undergraduate degree holders and they have been graduated mainly from local Saudi universities. High Diploma and/or BSc holders from Saudi universities are mostly unaware of the hard aspects of TQM as compared to their more educated counterparts. The more educated group is more likely to be at postgraduate level with degrees such as MSc/MA/MBA and/or PhD, at times they may have working experience from abroad in countries such as UK and USA. In Saudi Arabia, they try to inculcate their

learnings from abroad. It can easily be assumed that postgraduates are more capable of applying and understanding TQM practices. However, people with this level of education are unwilling to positively contribute to the understanding and application of TQM principles. The qualitative findings further indicated that the TQM managers are assigned by MOH on the basis of their length of experience instead of the education level or degree.

Improving TQM understanding

This study's findings showed that there was lack of understanding on how the practice of TQM translates into action at different levels and the linkages required throughout the entire organisation to enhance that level of understanding. TQM is a managerial concept that seeks to integrate all functional areas of a business, with the sole focus of meeting and surpassing customer requirements and organisational objectives (Talib, 2013). This therefore means that all levels or functional areas of hospitals should work collaboratively to satisfy the needs of patients. To attain understanding at all levels, TQM implementation requires the commitment and involvement of every single member of staff within the organisation to strive for continuous improvement and eliminate defects (Al-Omair, 2002). Therefore, employees' mind-sets and understanding must look to fulfil or surpass consumer expectations while achieving organisational objectives.

The researcher of this current study identified that there is lack of synergy between *strategic visioning and policy planning* which takes place at the senior managerial level, *quality processes* that take place at the administration or supervisory level and *quality outcomes* at the point of delivery or patient interface. These three categories were generated from thematic analyses of the interview data reflecting the main theme: levels of understanding (LOU) of TQM practice (see diagram 9 for an illustration). From the research findings, it appears there is a lack of understanding in public hospitals of what TQM means and how it translates at the different levels of the organisation and is communicated. A successful TQM effort requires a common vision/benchmarking, where the future vision of the organisation is clear, compelling and consistently presented in terms relevant to all members of the organisation (Withanachchi et al., 2007).

For the KSA's MOH to create synergy and successfully adopt TQM, change in the organisation is required (Seetharaman et al., 2006). To manage this change effectively, leadership then becomes a significant factor in ensuring that TQM succeeds in delivering quality care. It is imperative that MOH senior management assume the responsibility to provide the necessary vision by clearly establishing what they want to achieve. This is

because leadership must identify, formulate, specify and communicate the vision accordingly (Seetharaman et al., 2006). As pointed out in the review, hospital leadership should motivate staff towards a quality consciousness (Talaq and Ahmed, 2003), which should be embedded within the organisation's basic business philosophy, with the emphasis on quality, and inform them of the activities that manage and ensure this quality (Munir and Elhuni, 2012). Additionally, management must ensure a level of understanding on the strategic visions and policies which must permeate the organisation – each person must then comprehend their own role in the process and the beneficial outcomes of their input in facilitating buy-in to TQM and the desirable influence on quality of care and patient satisfaction. Thus, creating such a synergistic understanding is a critical success factor required for desired improvements in TQM practice in Saudi hospitals. Shortcomings, due to limited understanding of the organisational vision, and one's contribution to the process were revealed through thematic analysis of the interview data and later confirmed in a survey based on the poor scores given on LOU sub-themes.

Lack of TQM practice makes it difficult to gain employee commitment and limits the diffusion of a TQM culture throughout the organisation. Alhwairini and Foley (2012) suggest that soft aspects of management, such as increased employee participation, encouraging task ownership and infusing understanding of the firm's objectives, increase the chances of success. Further key findings in this study, to be discussed below, also raise the issue of the importance of communications, such as enhancing communications between employees and top management and a participatory leadership that encourages employee commitment. The very basis of TQM places emphasis on employee commitment as a must-have element if a quality culture is to be established (Alhwairini and Foley 2012).

Inter-hospital or institutional communication

Communication within and without hospitals and health organisations is one of the key weaknesses in the existing TQM framework run by the MOH. As established in the literature, communication is intrinsic to TQM and imperative to improving quality (Sanders, 1994). As it is a critical success factor, the MOH should address communication challenges in order to facilitate improvements in existing TQM practices. The interviewees identified areas of limited communication necessitating improved levels of engagement, including policy and regulatory communications between MOH and hospitals and inter-hospital resource- and knowledge-sharing communications. Furthermore, this study's survey revealed that nurses also found fault in these two aspects.

Qualitative results from this study revealed that with poor communication resources that can be shared lay unutilised, resulting in inefficiency. For instance, some hospital equipment lies idle while there is demand for similar equipment in others, whereas some form of communication and co-ordination would productively engage these assets (Safi, 2016). As O’Leary et al. (2011) postulated, communication failure causes teamwork failure, meaning that communication affects the quality of healthcare delivery. Researchers suggest that despite vast investments made by the government, the MOH has not received the desired returns expected, due to poor co-ordination and communication, thereby resulting in the duplication of effort and wastage of resources (Hanan and Roland, 2005; Walston et al., 2008; Alkhamis et al., 2014). As such, based on findings about the significance of communication in TQM implementation taken from the literature and primary research, this study proposes the establishment of a national inter-institutional communication strategy (IICS), which would significantly improve operational efficiency and quality care in Saudi health. This communication strategy would be operationalised at three different levels, as discussed in analysis chapter.

Healthcare system advisory board

The proposed advisory board would communicate at the national level, and its role may include the facilitation of inter-institutional communication. Improved communications at this level can improve stratified inter-organisational analysis of the industry by leveraging on the learning of other institutions, whether positive or negative. Furthermore, relational programmes between hospitals can be established on a national level, facilitated by IICS and an advisory board, to build more co-operative partnerships between institutions on issues such as R&D, project collaboration, information sharing, etc., which could lead to cost efficiencies and improved quality of care through core competency focus and value-adding activities through risk and reward sharing. A properly functioning IICS and advisory board could contribute to enhancing overall performance and efficiency in the industry. This study suggests that the healthcare system advisory board should be developed beyond a communications role. For example, the board could be chaired by a leadership round table in two-year cycles, whereby big/small, public/private and urban/rural hospitals would have the opportunity for a fair representation and a voice in Saudi healthcare policy development, as well as possible voluntary enforcement to fill the void left without a national regulatory body. The existence of such a board could also provide the opportunity for hospitals to share best practice.

Sub-national to firm level communication

Sub-national to firm level, direct communications between the MOH and individual hospitals could form the basis for policy and regulatory communications being established and lead to effective policy implementation. Currently, the author notes that the MOH role, which is to develop regulatory policy, is limited to this function, with no responsibility or authority to implement and enforce. As such, ongoing formal communication between the MOH and hospitals may lead to self-enforcing on the part of public hospitals when equipped with the requisite knowledge. The lack of a national regulator to enforce quality standards continues to present challenges to the healthcare industry in Saudi Arabia with respect to quality of care (Alkrajji et al., 2013), as it necessitates self-monitoring. Furthermore, MOH and hospital formal communications could lead to customised advice and support given to the specific needs of hospitals at the institutional level, as opposed to broad-brush national initiatives that may not benefit all players collectively.

Local-regional firm-to-firm level, inter-hospital resource and sharing communications

Established communications and collaborative partnerships could lead to increased efficiency and the optimal utilisation of resources in terms of both internal and external communications, which is critical to TQM (Agus, 2007). One of the main obstacles to implementing TQM is inter-organisational communications; communications is a key determinant of success, due to its role in co-ordinating organisational functioning (Salegna and Fazel 2000). However, of particular interest is the observation that one of the key areas of weaknesses in Saudi hospitals is leadership's inability to establish or facilitate a climate of open communications and encourage organisational learning, principles that are important to TQM practice (Alahmadi 2010). The findings show that there is strong agreement, confirmed by 85% of the sample, that there is statistical significance among nurses and patients (98%).

Culture competence and staff training or education

The literature revealed that employee training and education is imperative to attaining quality improvement and TQM (Talib, 2013). Saudi healthcare faces two of the biggest challenges, namely (1) shortage of nurses and (2) the role of culture (Al-Mahmoud et al. 2012)). These two challenges have implications for the critical success factor that necessitates ongoing education and training in the industry. Education and training of staff

typically influence the quality of care delivered, especially in Saudi Arabia, where most health workers are expats and the local culture is very distinct. The majority of nurses in Saudi Arabia, 74%, are expatriates, bringing with them cultural diversity from about 52 countries (Aboul-Enein 2002) in relation to religion, cultural practices, social values and language between expatriate nurses and local patients (Al-Mahmoud et al., 2012). Cultural diversity, thus influences nurses and other health experts' competence (Almutairi et al., 2014), necessitating training and development for quality delivery.

In this study, the interviewees raised the issues of culture and language as potentially affecting quality of care, particularly between expatriates and local patients. The noted impact on quality relating to cultural diversity is expected, because we all see through different cultural lenses. The need for education and training emerges from risks of misunderstanding patients' needs, misdiagnosis, and communication failures and so on). Therefore, it is imperative that training and education for all expatriate health staff, to enhance their culture competence, is achieved.

To attain cultural competence through training and education, some institutions offer cultural orientation seminars to new staff, prior to commencing employment. The aim of such seminars is to assist expatriate nurses and healthcare professionals understand family dynamics in the country context and provide a general overview of Saudi culture (Aboul-Enein 2002). Additionally, this training ultimately reduces culture shock (McLeod 2008) and improves service delivery. However, feedback from this study's interviews shows that such seminars or introductory training are not sufficient. Thus, more innovative ways for fostering cultural understanding are needed. Furthermore, the patient surveys in phase two indicated low levels of satisfaction with hospital services, which focused mainly on interaction between staff and patients, which is consistent with other research (Al-Doghaither 2004). Due to globalisation and the blurring of borders, widespread information technology and high levels of migration, this added diversity in healthcare settings and, as such, "knowledge of cultures and their impact on interactions with healthcare is essential through training and education" (McLeod 2008). More effective, extensive and ongoing cultural sensitivity training and education programmes must be in place to improve the quality of care in hospitals (Aldossary et al., 2008).

The second cultural issue affecting staff competency, as drawn from interview data in this research, refers to the home country national (HCN) cultural dilemma. Specifically, this aligns with the impact Saudi socio-cultural factors have on domestic nurse labour

shortages. It also involves religious-cultural factors in terms of male-female segregation and its influence on workload allocations and service delivery. Nurse shortages, workload and service delivery are all critical components involved in implementing TQM. Research identifies HCN cultural dilemma to be a major problem, in that the nursing profession faces challenges; for instance, there are concerns for the reputations of females caring for male patients, as it might expose them to moral corruption (Al-Haidar 1996). This thesis also notes that Saudi male nationals observe nursing as a profession dominated by females, while documented records in the kingdom argue that there is a 50-50 ratio in this regard (Al-Mahmoud et al., 2012). Thus, socio-cultural factors are in great part responsible for the acute shortage of Saudi nationals and the huge population of expats in healthcare. The MOH therefore has to consider training and education programmes that will help counter this domestic shortage. Additionally, training and education is needed to advocate for the mixing of sexes, to some extent, as this is inevitable in a healthcare setting. While it is reported that efforts are at least made in the first instance to ensure male-male and female-female interactions occur, to avoid scheduling challenges that may lead to service quality issues (Al-Mahmoud et al., 2012), the Saudi health industry has to address these socio-cultural and religious factors through education.

The recent gains related to the theme of *Enhanced competency development and training* are the result of the Saudi Arabia government's drive to 'Saudise' the labour force and fashion greater employability. Saudisation, or minimum employment quotas for firms to hire Saudi nationals, has been highly effective in stimulating the number of jobs available to Saudi nationals (Alhejji and Garavan, 2016). However, the challenge is that they must want these jobs, which is not necessarily the case in nursing, for example. Reliance on Saudisation for building domestic nurse capacity may not be an optimal strategy, at least based on the above discussion in relation to the negative local perceptions of the profession, and it could have implications for quality of care and patient satisfaction. The situation is exasperated further by the observed high turnover of expatriate healthcare workers (Almutairi et al., 2013), which could be due to issues such as poor contractual terms, which cannot exceed one year and there is no guarantee of renewal. Furthermore, due to the Saudisation policy, expatriates' contracts may be terminated without compensation if there is a qualified Saudi national that can take their place (AlYami and Watson 2014). Such contractual terms are onerous and could lead to divisions and conflict between local and expatriate staff, have a negative impact on teamwork, damage customer-oriented focus and lead to the breakdown of internal communication. These issues could all potentially have an impact on TQM practice and job performance, if satisfaction levels are low, and

ultimately result in poor quality of care and patient dissatisfaction. This division is deepened further by the market dualism that exists whereby local employees receive more favourable payments and privileges as a form of political appeasement (Assaad 2014). Therefore, training and educating more Saudi health professional, to overcome the domestic labour shortage, is a more significant approach.

Institutionalisation of transformational leadership throughout the Saudi HC system

Leadership and management commitment are discussed as one of the critical success factors for implementing TQM practice in hospitals or organisations. As a core element of management commitment and leadership, the interviewees suggested leadership-through-example, thereby demonstrating top-down commitment essential for establishing a TQM culture, and infusing it as a basic business philosophy. As such, this study researched managerial leadership-through-example further and found it to be a powerful management principle. The author's research revealed that such leadership required management's full participation and not only endorsement, but also active engagement in TQM training and learning and related TQM processes. This is particularly important, because a core philosophy of TQM is the involvement of employees at all levels.

Managerial leadership-through-example facilitates easier buy-in when visible to employees at lower levels of the institution. Often there is fallout and low employee participation and interest in TQM programmes when management commitment is not present in the different functional areas of the business (Seetharaman et al., 2006). According to Kasul and Motwani (1995), commitment can be demonstrated through dedication to empowering people to facilitate change and a periodic desire to raise goals to challenge others to up their game towards continuous improvement. Additionally, research suggests that there is a strong link between TQM failure in firms and a lack of managerial commitment (Seetharaman et al., 2006).

Similarly, practitioners in the field can also utilise management-by-process, to facilitate a more participatory style and a higher level of involvement by employees, for example by encouraging teamwork and problem-solving (Alhwairini and Foley 2012). Such engagement emboldens understanding of TQM practice through 'doing' and collaboration. In the country context of Saudi Arabia, cultural values influence the nature of the administrative structure and behaviour in organisations; for example, the inheritance of the autocratic Ottoman system (Assad 2002) led to the predominance of a more autocratic

leadership style despite Western influences. According to Alhwairini and Foley (2012), the culturally influenced hierarchical structure and transactional leadership style in most of the country's public institutions, such as the public hospitals explored in this study, are representative of contexts that are not necessarily conducive to TQM practice. This observation raises the issue of leadership influences and the usefulness of cultural training in facilitating learning on the establishment of a TQM culture and quality of care.

As noted previously, nurses in this study have low satisfaction scores, mainly from the largely expatriate group. However, recent work by Abualrub and Alghandi (2012) on Saudi nurses noted that there was a tendency for higher levels of job satisfaction where management practice reflected elements of transformational leadership style, such as a strong emphasis on staff training and personal development, which could lead to improved job satisfaction. Furthermore, when employees are well trained and educated, they show greater independence and autonomy, which in turn facilitates the decentralisation of decision-making – a core requirement of TQM (Wilkinson et al., 1998). This study observed that decision-making in the Saudi healthcare sector is highly centralised, with the MOH assuming primary responsibility for most decisions related to this area. It has been suggested that much of the inefficiency and wastage in the sector is due to this centralisation of decision-making and advocated that the decentralisation of power is one of the possible solutions to this problem, as it could ensure higher levels of accountability and improved levels of service (Safi 2016). Leadership that favours decentralisation is thus appropriate, because decentralisation not only increases efficiency, but it also removes bureaucracy, increases accountability and results in better management. Decentralisation will also provide incentives for greater co-operation and communication between hospitals. Thus, this dissertation's author advocates greater internal and external co-operation within and between firms, through participative leadership styles coupled with decentralisation.

The importance of managerial leadership-through-example is that it creates an atmosphere of internal co-operation between employees in the same firm, which is needed in order to achieve what Ishikawa (1985) and Juran (2003) call "internal customer satisfaction." Furthermore, in order to introduce TQM practice, this necessitates open co-operation to be created by management (Crosby, 1979; Deming, 1986). Employees must be allowed to take ownership and feel responsible for quality outcomes, such as patient satisfaction, by participating in the vision, strategies and planning activities for TQM (Talib 2013). TQM practice allows individuals the opportunity to participate, contribute and develop a sense of ownership (Seetharaman et al., 2006, pp., 675). This facilitates greater buy-in, as co-

operative or participative leadership encourages greater teamwork and cross-functional co-operation, i.e. the core principles of transformational leadership (Weeks et al., 1995).

Managerial leadership-through-example is also important in addressing the sub-themes identified from the interview data as *Standard setting and incentivisation*. It was noted that there were calls for the establishment of standards, performance measurement and requisite rewards. Such actions would bring about greater fairness, transparency, motivation and, ultimately, job satisfaction. However, the challenges of labour market dualism that favour locals over expatriates in general, and the possible conflict and deterioration in teamwork and co-operation, exist. This dualism also extends to discrimination between Western expats relative to those from other nations, with clear disparity in payment and privileges (Aldossary et al., 2008). Potential income as investigated in this research was that Saudi nationals were more satisfied with their jobs than non-Saudi nationals, which is likely to lead to problems and disparities in quality of care delivery as one group may be more motivated. As such, managerial leadership-through-example has to establish, as this research claims, a link between teamwork, organisational trust, organisational culture and customer focus for employee job satisfaction (Boon Ooi et al., 2007). Employee dissatisfaction or discord, due the labour dualism, is an important factor for leadership and management to solve, as it could have a negative effect on the abovementioned variables and ultimately influence quality of care.

Recent surveys have revealed that the highest priority for employees is fairness at work (Moccia 2016). Thus, since managerial leadership-through-example avoids discriminatory treatment in the workplace that leads to negative employee behaviour or vice versa, it gains ground as an appropriate leadership approach. Furthermore, it is observed that trust, TQM practice, employee involvement and satisfaction all depend considerably on ethical values, and so discriminatory leadership styles are not appropriate (Moccia, 2016). Thus, related to *Standard setting and incentivisation*, it would be useful for leadership to first begin with an ethical, impartial commitment to internal customers, namely their employees, first and foremost, as seen in the first step in *Patient-centred care*, as these employees such as nurses are the deliverers of a service. The establishment of good relationships between employees and management and among other employees often produces bottom-line advantages (Weeks et al., 1995) and is more than likely to lead to positive quality outcomes.

Barriers to improving Saudi quality of care

The final theme is a discussion on barriers evaluated in the study's results, including barriers to improving the quality of healthcare provision. This was achieved by identifying major barriers through the use of strategies for improving healthcare.

Culture-related barriers

Lack of a common language for communication

It was ascertained through the research that the failure to use a common language and the presence of cultural differences in communication were major barriers to improving healthcare provision. Communication skills are vital in healthcare, together with a high level of confidence during active interactions between patients and health professionals. Which could be important that the lack of common languages equates to two different barriers: language and culture. Yet, the reason why they are defined as one specific barrier is that the world of human interaction and preserving and transmitting expressive culture through communication (Giger and Davidhizar, 2002), and thus language becomes a distinct part of the definition of culture (Andersen and Taylor, 2011). Accordingly, it needs to be comprehended that all multicultural communities have certain restrictions, due to a communication and language which is lack to Saudi Arabian infrastructure.

Past research presents different strategies on how to counteract language barriers (Poisson, 2009; Lamiani and Furey, 2009; Visser and Wysmans, 2010). Just as education and training are critical for TQM, education is again a pivotal solution to the communication barrier. Researchers suggest that learning both Arabic and English would help the national workforce become bilingual; in particular, English as a second language is a vital resource in the overall improvement of healthcare, as it is commonly spoken in Saudi Arabian hospitals. The results from this research are similar to previous studies (Bommel, 2011; Halligan, 2006; Nasir and Nasir, 2006; Sidumo, 2007), as they also determined the requirement for nurses to learn Arabic and English at at least a basic level. Moreover, it was found that the acquisition of Arabic through learning often makes it easier for providers of health provision to provide a better level of care (Nasir and Nasir, 2006). Accordingly, Wurzbach (2002) stated that in the Middle East, where there is a high-context culture, it is not sufficient merely to learn body language and hand signals in patient care, as patients commonly use a combination of verbal and non-verbal messages. Therefore, it is generally challenging to understand, communicate with and treat patients well, when the nurse fails to understand the spoken language.

In addition, it has been stated that macroscopic activities, which increase awareness of present language legislation and help determine patient language, and culture as integral to the personality are undertaken by nurses (Poisson, 2009). Nonetheless, Arabic is understood to be highly challenging to learn for non-natives, as it possesses words that have a variety of meanings and which can relate to different parts of health promotion and the provision of healthcare. Nevertheless, even though the requirement to teach Arabic is evident, it is not available for nurses within all Saudi Arabian hospitals (Halligan 2006), which could potentially affect professional relationship development between nurses and managers, as language then becomes a barrier.

What is more, the Saudi Nursing Policy and Procedures Manual (NPPM) (the official reference guide for hospital nursing practice in Saudi Arabia), as stated by the MOH (2011), promotes nurses' ability to communicate, although nothing is stated that provides a structure on which to base language courses in Arabic nor English. Consequently, it is imperative that the policies are updated by the General Directorate of the Nursing Department's (GDND) policymakers, which in turn would improve provision quality. Indeed, 67.7% of all Saudi Arabian nurses are expatriates, and thus implications on care provision, due to communication, have been noted by the Saudi MOH (Almutairi and McCarthy, 2012; MOH, 2011a).

Nonetheless, communication cannot be understood as a singular barrier, as it is also connected to culture, a notion that is particularly evident in a country such as Saudi Arabia. Communication has a mixture of both verbal and non-verbal forms, the latter of which are often developed through cultural upbringings that are specific to certain societies (Almutairi and McCarthy, 2012). For instance, if somebody asking the girl to marry him in Saudi Arabia, an act of acceptance is shown through silence and shyness. Yet, when a question is posed by a woman, the girl will generally answer directly with "yes" or "no". Therefore, nurses working within the country require a deeper awareness of communication in relation to culture. This is precisely why the comprehension of communication as having a direct connection to culture is vital in developing the provision of quality healthcare.

Different studies have demonstrated a similar level of significance in relation to communication (Visser and Wymans, 2010; Gozdziński et al., 2012). Meanwhile Bernstein et al. (2004) reported similar findings in participants related to a competent skill level of communication. Visser and Wymans (2010) and Lamiani and Furey (2009)

determined from their analysis that training in relation to in-service communication is vital in the achievement of long-term quality provision benefits in nursing departments. However, different studies have shown that the process of training in communication skills is challenging to implement for nurses (Chaffee, 2000; Lamiani and Furey, 2009; Farahani et al., 2011). It has been stated that communication, when it is practiced well, is a process that includes paraphrasing linked to comprehension (Lamiani and Furey, 2009).

Nurses need to possess communication skills through six stages: planning and strategy; channels and material selection; materials and pre-testing development; implementation of strategy and effective assessment, together with feedback, in order to re-define healthcare that provide a good communication and ex-changes of emotion (Chaffee, 2000). Farahani et al. (2011) noted that all of these stages need to connect in a systematic manner, which means that the current study's conceptual framework model should utilise, specifically English and Arabic, as a development of communication ability, which will reduce the barrier between language and culture. Therefore, the conceptual framework's operational definition needs to deal with support in regards to the challenges in hospital healthcare provision, that could improve the professionalism and provided quality by nurses.

Gender segregation

One of the main cultural values prevalent within Saudi Arabia is gender segregation. In the current study, the strategies target nurses of both genders of Saudi nationality. However, nurses experience their practice differently across the gender lines. The literature review shows that some female institutions rejected a visit by this male researcher (Al-Mahmoud et al., 2012). According to Aboul-Enein (2002), experienced multicultural nurses in Saudi Arabia provide high levels of care in spite of cultural challenges. Moreover, more culturally appropriate factors should be included within an educational assessment, such as attitudes to diverse beliefs on health, networks within family relationships, pain expressions as well as relevant care experience (Chang and Kelly, 2007). Defining health communication through a cultural narrative may present more complexities, as it is vital within educational development that cultural necessities are understood by nurses in relation to their own cultures and those for whom they care (London, 2008). What is more, reports within Saudi Arabia have stated that communication barriers due to language issues are a main concern within the function of a multicultural nursing workforce (Almutairi and McCarthy, 2012;).

Acceptance of nursing within the wider community

Strong gender segregation within Saudi Arabia society presents other unique challenges. In general, when a nurse breaches ingrained cultural values in relation to gender, it creates

a negative public perception of nurses and nursing despite the fact that both of genders they fully supported by the national system HC, where they are even permitted to work together in many facilities. Nonetheless, it is a ‘cultural crime’ for different genders to work together, as it is commonly believed that this will lead to temptation that could induce extra-marital affairs. As a consequence, female nurses who work with men are treated with suspicion in relation to their fidelity, which is viewed as a heinous sin in Saudi Arabia, especially as marriages are family-arranged and any thought of infidelity would shame a family (Gazzaz, 2009).

Patients’ perceptions of professionals

A separate example of the acceptance of nursing within the Saudi community relates to the preference of native patients to have a physician throughout the course of treatment, as they are viewed as superior to any nurse. Farahani et al. (2011) also reported this notion within their findings of healthcare in Iran, as patients prefer physicians to treat them, due to the cultural belief that nurses are not as knowledgeable as physicians. As a result, nursing practice on the quality of healthcare can often be affected by cultural understanding (Beagley, 2011). Moreover, it was stated that the perception of care in nursing is connected to nursing’s cultural values, although it was also believed that this model helps deal with the cultural barrier (Mebrouk, 2008).

Resolution for quality care cultural barriers

In order to improve cultural barriers, it is necessary to implement different actions, which begins with directives from the highest authorities in healthcare (i.e. the MOH in Saudi Arabia), as well as understanding the roles of policymakers in defining culture-related barriers. As a result of cultural differences, policymakers from different authorities of health need to grasp specific the beliefs and cultural values, as successful the Western for health promotion could not always equate to Middle-Eastern successful (Eshah, 2011). This research, however, is in contrast with the current study in regards to the role of quality of care in the promotion of healthcare, as it mentions that policymakers must not perceive the cultural values to be an obstacle. In fact, various cultural dimensions should be embraced within healthcare in the country (Eshah, 2011), although the current research is directed toward how to deal with the failings, instead of stating that they should be adhered to.

As the main health authority in the country, the Saudi MOH provides support to improve cultural awareness, although it does not always succeed (MOH, 2012), as there is a requirement to understand how to develop it. The study’s findings have helped determine

that strategies to enhance the quality of care in healthcare could be developed through the main five themes extracted from the qualitative results. Likewise, various Saudi Arabian and international studies have demonstrated that the media is beneficial as a strategy in healthcare (Saleh et al., 1999; Jaramillo, 2001; Hasim, 2000). It is actually viewed to be the specific responsibility of health authorities and policymakers around the world by a variety of international organisations in the promotion of healthcare, which then links to the need for financial support (Unit For Sight, 2013; Wallack, 1990; WHO, 1996; World Health Forum, n.d.). Furthermore, through media, a nurse could develop his/her self-esteem in conjunction with understanding different cultural beliefs, which, as well as additional support and motivation, that is enhanced through nurses' communication levels and their interaction (Swansburg and Swansburg, 2002). Hence, the media needs to consider these details when being utilised as a tool in improving the understanding of cultural beliefs in Saudi Arabia. Nonetheless, the media cannot be used in healthcare environments, unless it is through a combination of different educational interventions that promote alternative learning forms.

There are challenges with the public hospitals plan (MOH, 2012, pp. 69-100), as it agrees the maybe effected by the media, which is vital as a whole, although in relation to supporting health promotion it is not necessarily utilised. Therefore, the strategic plan within the health service of Saudi Arabia needs to be developed, as a whole. At present, there are a lack of studies in the kingdom of Saudi Arabia that can evaluated the media and be used to measure health promotion learning outcomes (Dill, 2013). Therefore, the utilisation of media in healthcare promotion, together with its improvement, needs additional exploration and research in relation to Saudi Arabia. Additionally, more action is required within the hospitals during nursing orientation. It is necessary to educate individuals who remain unfamiliar with Saudi Arabian culture and values (i.e. gender segregation) (Almutairi and McCarthy, 2012). Furthermore, to improve on these cultural barriers within health practice, it is vital that two-dimensional action is instilled, which is both inside and outside the hospital.

Certain beliefs within societies may disappear over time, as people often abandon their own values, due to exposure to globalisation, media and immigration, and thus beliefs in nursing could change, too (Wallace and Rusk, 2010). Presently, this is occurring within Saudi Arabia, as there has been a decrease in negative perceptions of nurses within the community, which has particularly occurred within the bigger cities, although this has remained so in many rural areas of the country (Al-Abri, 2010). Therefore, to improve this

issue on a universal scale, there is a requirement for the government to focus on rural areas, which could be implemented through media in order to raise awareness of how nursing is vital for the country's health service, which will then instil respect and trust within the community (Al-Abri, 2010). As a result, nurses' levels of motivation to continue and improve their quality of healthcare would develop, and thus health provision would become better.

From all of the aforementioned points and factors applying to barriers to healthcare, it can be understood that there is a correlation between the three main themes in the findings, which may utilise in order to work with resolve the obstacle that could effected within this research. From this, nurses could develop in education and improve the quality provision of healthcare.

Environment -related barriers

There are three major workplace-related barriers drawn from this study's findings, namely insufficient time in the provision of healthcare, lack of a quality environment and administrative issues.

Time inadequacies

Insufficient time has been shown within the findings of the current study to be increasingly detrimental to any improvement in healthcare, which, as identified by patients, was linked to staff shortages and work pressure. Accordingly, insufficient time has been cited in a variety of other studies (Aghakhani et al., 2012; Avsar and Kasikçi, 2011; Barber-Parker, 2002; Bergh et al., 2012; Casey, 2007a; Casey, 2007b; Park, 2005; Wright et al., 2009) and specifically to the issue in a healthcare setting (Bastable, 2005; Falvo, 2011; Freda, 2002; Rankin et al., 2005). Nevertheless, different solutions are available to combat these time constraints.

The first suggestion is for management styles to be taught and learnt correctly, especially as it is indicated by the findings in this study that time management is vital in the correct provision of health, due to nurses' low levels of confidence in this regard. Meanwhile, it was stated that nurses need to have time management skills in relation to a variety of patient care tasks (Wood et al., 2011). The current study ascertained that time is a major constraint on the provision of health, and thus overall practice has to be improved, to develop better-equipped nurses. Comparatively, it has been argued that time management skills are not actually overly imperative, as observation and assessment should be developed first, which could save the need for extensive time (Rankin et al., 2005, p. 174). It is also believed that

additional research regarding time management is required, in order to clarify how it applies to improvements in the provision of healthcare (Hagglund, 2010).

A different option that may be taken in relation to time constraints stems from seeking support from hospitals and TQM managers, as this has a common link with shortages in staff numbers as well as work pressures (Llahana, 2005). Furthermore, the findings from the study illustrated that confidence levels could affect time management. On the contrary, the study by Bernstein et al. (2004) found that 61% of participants were actually confident in regards to their ability to manage time, although it was still acknowledged as an important subject within the provision of healthcare. Meanwhile, time management has been described as the effective and efficient use of time (McFarland et al., 1984). When time management is considered to be a part of nurses' learning needs, it will become possible for this cohort to organise work tasks accordingly and prioritise them correctly (Sullivan and Decker (1992). This will ultimately advance quality in emergency response, as well as help cope with additional tasks. Subsequently, the impacts of time constraints could be decreased by nurses themselves, as they would be able to overcome barriers without needing additional support. Hence, education on time management in nursing needs to be included within the conceptual framework, albeit it might prove more beneficial initially for nursing policies to be updated by the MOH, in order to promote time management as a part of nursing staff development, which is currently omitted (MOH 2011).

Inability to development educational environment

It is essential that the education of nurses is implemented, to make advances in high-quality in healthcare, which means that the three specific dimensions from the findings require careful attention: learning needs for patient care, patient-related barriers and nurse-related barriers. These findings indicate that when a beneficial educational environment is not present, the education of nurses is prevented, which relates back to the development of TQM and is a continual challenge. Likewise, certain investigations found results that were similar and showing that the poor levels of educational environments produce negative attitudes in staff nurses (Berland et al., 1995; Atkinson et al., 2009; Rahmani et al., 2011; Aghakhani et al., 2012). Other studies have shown that nurses' ability to improve their healthcare provision quality decreases due to a bad educational environment (Bastable, 2005; Beagley, 2011; Berland et al., 1995).

Through TQM, the education environment in hospitals could possibly be controlled with health promotion skills, as it was determined that nurse's respond well to education in

regards to noise and educational control (Connor and Ortiz, 2009). Indeed, Avsar and Kasikçi (2011) suggested that nurses should be trained in improving control in hospital educational environments, which is connected to correct time and place selection, as well as developing an awareness of correct patient care. Through this action, nurses will be able to organise the hospital environment and make it more beneficial to healthcare provision and improve patient care.

Furthermore, different abilities and skills are also believed to be vital in the development of health education; for instance, active listening could play an indirect role in hospital environment control. Even though no particular study was found that measured the relevance to listening skills in TQM within hospitals, or the connection to the advancement of nurses' confidence levels, it has been analysed within the findings of many studies (Antai-Otong, 1998; Benson and Latter, 2004; Dreeben-Irimia, 2010; Kinmonth et al., 1998; Tatsumi et al., 2009). In particular, it is mentioned that nurses utilise observational and active skills as an imperative part of appropriate responses to improving the work environment and healthcare promotion, which correlates to the development of TQM (Antai-Otong, 1998). In relation to the educational environment, nurses learn to adjust the room correctly, as well as define the location and time that ensures that all benefit. Hence, nurses could potentially redefine the learning environment themselves, in order to overcome the lack of a good option, which has been shown in the present study.

Lack of teaching tools

The current study found a different barrier, namely the lack of teaching tools that are available in patient education on TQM. It was defined that patient education and learning include the acquisition of knowledge and skills, attitude development and changes in behaviour (Falvo, 2011). Hence, a failure to provide the correct and sufficient teaching tools may result in a decrease in nurses' knowledge, skills and ability in the course of healthcare provision. Moreover, this specific barrier has been described as majorly frustrating by Fitzpatrick and Hyde (2005), while it has also been determined to be relatively commonplace (Lahl et al., 2013). It was stated that no homogeneous method of analysis exists that functions appropriately for all different experiences of learning, due to learners possessing a variety of requirements. Additionally, it is also believed that specialised nurses have the responsibility to utilise tools and resources in the course of teaching, specifically in TQM in order to support and develop engagement with patients through education, whilst also offering a patient-focused structure (WHO, 2008). According to White (2005), this access to teaching methods and resources could advance

individual nurses' self-esteem, and thus professionals would find it easier to undertake necessary tasks.

Nevertheless, there is also a different strand within the literature that details and analyses the importance of a lack of teaching resources in regards to the provision of healthcare, as it is argued that the availability or lack of materials and resources is not a defining issue. It has been stated that the underlying problem relates to nurses' understanding of these resources, which would otherwise enable them to identify correctly and gain the most benefit (Fraze et al., 2010; Aghakhani et al., 2012; Fitzpatrick and Hyde, 2005). Likewise, in many instances, nurses struggled to know how to use certain resources, even though they were available (Cashins et al., 2009).

It can be concluded from this evaluation that using and selecting the correct teaching tools is a priority within educational practice for nurses, and it should come prior to the provision of healthcare. It was also determined that learning needs to show in learning are vital in healthcare education, as low self-esteem and motivation levels are often present in nurses. What is more, the National Commission for Health Education Credentials (NCHEC), in 2010, defined certain responsibilities, competencies and sub-competencies that should be adhered to by specialists in healthcare (NCHEC, 2014). Indeed, it was mentioned that the assessment needs to include new knowledge for the learner, who will also develop the resources tools for the quality of care (NCHEC, 2010). Accordingly, there are a variety of international universities that have adopted this method, such as Deakin (Deakin University, 2014), Wisconsin-La Crosse (Wisconsin-La Crosse, 2014) and Kaplan (Kaplan University, 2014).

It would be challenging to learn about all of the appropriate strategies that need to be implemented within nursing education and patient care, as also defined by Chio et al. (2010). Moreover, it was demonstrated by Murphy and Hallinger (1987) that the five dominions of learning need to be understood in order for the appropriate teaching methods to be selected, which are made up of contrastingly, it is also believed that alternative tools of teaching are vital in providing quality of care in nursing, as those that are utilised for one culture may not be compatible with another (Freda, 2002). Selecting the appropriate method is a subject that requires understanding. Although it could be challenging to learn, it could provide a basis through which to overcome the barrier that is represented by a lack of teaching tools.

Performance improvement-related barriers

The current study identified various improvement barriers that nurse's encounter, which could relate to their quality and job performance, including language within the quality of care. Furthermore, other significant barriers to improvements within the employment environment include insufficient training and continuous TQM education, an inadequate educational environment and insufficient language consistency in the health education of nurses. Moreover, an inadequate level of interest by nurses in relation to learning or providing health improvement has been found. As a result, two individual findings have been ascertained to rectify these issues, namely implementing and improving in-service training, whilst also defining the provision of healthcare as a primary role.

The failure to develop and improve healthcare by nurses, together with TQM, was found to be a significant to their reluctance in this regard, as noted by other studies (Avsar and Kasikçi, 2011; Casey, 2007b; Furber, 2000; Ivarssona and Nilsson, 2009; Kelley and Abraham, 2007; Lee and Chien, 2002). In general, overall connection to the there is a distinct lack of co-ordination in educational development and the provision of quality care, which was also stated by Rankin et al. (2006). It has been shown through the results that in-service training is a requirement within the conceptual framework model, in order to overcome these barriers.

Various other studies have provided designs for conceptual framework for TQM in health care in regard with quality managers and head nurses perspective's, in order to educate the TQM managers and head nurses correctly while also succeeding in developing the role of nurses and their development in patient care competency (Choi et al., 2010; Demir et al., 2009; Jones et al., 2011b; Lamiani and Furey, 2009; Pisal et al., 2011). It is also believed that training need to motivate the learner, to improve general practice in healthcare. Therefore, the potential to reduce the effects of this barrier could be achieved by providing more adequate training opportunities. Accordingly, training within this discipline must be organised to ensure that nurse' become involved in any intervention (Tse and So, 2008).

Furthermore, in order to develop a quality conceptual framework, prioritising healthcare practice would be useful, as it could be important in resolving training inadequacies as well as nurses' interest in learning. It was also determined by one study that giving priority to health promotion practice may often influence the organisation of a workplace, which then reflects development in nursing. On the other hand, it has been stated that learning is a personal issue and the individual responsibility of the nurse, who needs to attempt to adopt

the necessary skills by themselves (Moronkola and Ojedokunm, 2002). Nonetheless, conversely, it has been stated that the increased requirement for adequate individually, as providing quality healthcare is vital in their development (Nolana et al., 2000; Park, 2005). Meanwhile, even when sufficient training and education has been undertaken, healthcare practice often fails to prioritise quality (Nolana et al., 2000; Park, 2005).

In relation to the quality of care involved in nursing education, it is never adequate to develop them without understanding the levels of cultural competency, which is why prioritising patient care in nursing relates, which is the governmental level of policymakers in health authorities. It was stated that different standards of practice and policy, as well as professional development for quality of care provided by nurses, needs to develop and be updated regularly by health departments and policymakers, in order to advance the provision of healthcare (Douglas et al., 2011). Additionally, controls on health policy need to be developed that will redefine the future of visions that restructure healthcare targets and refocus on the specific roles of different groups within the workforce (WHO, 2014). Accordingly, the MOH has determined that training is vital to implementing these plans, as stated by the NPPM (MOH, 2011) and the Saudi MOH strategic plan (MOH, 2012). Specifically, it has been stated that, “There is a need to set up medical education programmes that are consistent with MOH professionals’ needs and updated to ensure the provision of updated services for healthcare needs” (MOH, 2012, p.105, p.171). Therefore, any failure to provide adequate training will result in a detrimental effect on the provision of healthcare, and thus the model’s design needs to consider this concept along with various different strategies utilised to resolve different barriers.

Learning needs in health improvement

There is a requirement to implement the correct form of quality of care in the practice of quality healthcare, as shown through the previous section in relation to barriers to health improvement, which showed that learning needs and the acquisition of knowledge in time management could help overcome these issues. Throughout this process, it is important that learning strategies are developed correctly, as well as languages, the form of communication and. There is a particular set of learning requirements for nurses in regards to knowledge and healthcare skills, which are required in order to achieve competency.

Required skills for health improvement

There is no universal definition of the term ‘skill’. One particular definition proposed by the WHO (2001, p. 8), however, encompasses “The ability that enables people to perform

certain behaviour explains the skills that are obtained through experience, not training. Skills as defined by the Free Dictionary (2012, p.1) is “Proficiency, facility, or dexterity that is acquired or developed through training or experience”. It is indicated there that both option can be true for acquiring skills. During counselling skills Timmy (2009, pp. 12-15) at a particular point specified that they include communication, active listening, information exchange, giving health teaching, and emotional help, which all may come under educational activities. This study formed its definition of ‘skill’ from the above, to refer to abilities acquired through learning and practice that enable one to perform a task proficiently.

In relation to the current study, the findings show that the majority of the measured TQM requirements are skill-related and they all affect the confidence levels of nurses. TQM-measured requirements include the development, patient needs, solution focused, co-ordination, social interaction and perceptiveness. The previous section detailed and discussed patient needs and nurse-related barriers, the decreasing quality healthcare. In the meantime, critical thinking has been shown to be an important skill in certain circumstances, which will be discussed in the following section, alongside problem-solving, co-ordination, perceptiveness and critical thinking.

Solution focused

Solution focused is a specific skill that is associated with potentially decreasing a nurse’s confidence level. The research by Altun (2003) determined it as an important concept in the perceptions of student nurses. Heidari and Shahbazi (2014) recommended that training and improvement in problem-solving could positively affect nurses’ overall skills of in decision-making, and thus they are beneficial to healthcare practice. It is evident from the results provided by Choi et al. (2010) that knowledge, when understood inadequate in providing appropriately culturally sensitive healthcare, as it was concluded that nurses need to improve their problem-solving skills in order to work out the issues within their practice in relation to cultural values that could potentially hinder general healthcare provision. Likewise, the study by Nolan et al. (2001) also showed a similar set of results. Developing problem-solving skills are essential, particularly within healthcare environment of Saudi Arabia, which has many cultural values and beliefs and will benefit nurses within healthcare practice.

Contrastingly, staff training is perceived in other studies to be essential in the development of nurses, as it was found that they do not consider themselves to have the correct skills

(Altun, 2003). It was also concluded that these improvements need to help nurses attain better levels of problem-solving, which could be enabled by acquiring different capabilities, for instance, self-awareness and inquisitiveness. Following the implementation of training, the confidence levels and self-esteem of trainees will increase due to an improvement in knowledge, individual analysis and being able to find solutions (Valente et al., 2008; White, 2005).

Nevertheless, it has also been argued that training, used to enhance knowledge levels in problem-solving skills, does always improve skills in this respect, even though it is often perceived as a vital element in the provision of patient care (May et al., 2006). There is also a requirement to include additional learning strategies within staff improvement programmes, in order to develop knowledge levels within the reality of patient care. The Saudi Arabian healthcare system, however, fails to identify the “strengths and weaknesses of the orienteers, including problem-solving and critical thinking skills” (MOH, 2011, p.13), although suggestion define how and staff nurses or managers need to utilise skills. As a result, the current research believes that there is a need to use the aforementioned method (May et al., 2006), in order to develop strategies and learning needs, and to improve the overall nursing approach.

Critical insight

It has been stipulated that critical insight by nurses, within the remit of improving the provision of healthcare, is particularly challenging, due to the findings from this study that show it is often believed not to be vitally important, thereby reducing competency levels. Low levels of confidence within the boundaries of critical insight were found, even though student nurses were generally highly motivated to receive additional training. Unfortunately, according to one example, most of the student nurses had minimal or no prior skills development. Moreover, it was a challenge for most students to communicate their own ideas, as their skills in critical writing failed to advance appropriately.

Various benefits exist in the process of critical thinking training for nurses. It is believed could potentially require improve the level of understanding; in order in enhance their performance and competency (Lum, 2011). Additionally, the benefits felt by learners through teaching critical thinking have been shown to include analysis abilities, problem-solving techniques and the ability to adapt to new theoretical knowledge, often utilised to implement the practice of cultural care in diverse communities (Paul, 1992). Meanwhile, nursing care is enhanced by critical thinking training, which also allows nurses to develop

their flexibility, creativity and abilities through open-mindedness and reasoning analysis (Lunney and NANDA International, 2009). As a consequence, the confidence levels of nurses will increase.

Nevertheless, on the contrary, certain challenges are often presented by teachers in critical thinking, as there are pressures involved, they need to adopt their teaching styles (Blondy, 2007, p. 52). Furthermore, there are often insufficient resources available, which could relate to time planning or the understanding of critical thinking strategies. Within cultural competency, the role of critical thinking skills is stated as being challenging to learn, as the correct theory needs to be understood and implemented correctly, in order to appreciate the implications of any abilities. What is more, the training process should include both general practical, which influences the ability to think critically, as well as specific-discipline courses (Paul, 1992). Consequently, to improve overall healthcare, MOH policymakers initially need to update their nursing policy, in order to ensure that, even challenges.

Overall, various primary skills are required to improve the provision of healthcare, namely co-ordination, correct strategy selection, active listening skills development, critical insight, communication enhancement and time management. Secondary skills, however, are also vital to critical thinking, while the basis of acquiring abilities without knowledge is inadequate if looking to progress the quality healthcare model. Many studies have designed alternative training courses that have helped define professionals who are culturally competent in healthcare.

Establishing a cadre multinational nurses

The final part relates to the development of a multicultural workforce within nursing, whereby two distinct strategies, as agreed by the participants, may prove beneficial. These refer to expatriate nurses being offered the chance to take courses in Arabic and the cultural understanding of Saudi Arabia, as discussed previously. It was also determined that expatriate nurses, even when they have acquired prior knowledge of cross-cultural training from a different country, feel ill-equipped to adapt to Saudi Arabian culture and the working environment, as they often experience unexplored scenarios (i.e. gender segregation). A separate and specific difference between countries can be noted between Saudi Arabia and South Africa, in that nurses cannot prescribe medication in South African nurses whilst training, but this is required as a part of their education in Saudi Arabia. Hence, it has been stated that these cultural differences create the need to improve nurses'

training based on their background, in order to improve on the challenges that are continuously met within the patient provision of care.

Concluding remarks

While making a purchasing decision customers are more informative and choosy in their selection. Total solution is purchased by them, regardless of the quality of product or service. It should be in knowledge that when a company is most able to satisfy customer needs, the culture of the company as whole is headed towards a stable and continuous improvement of total quality. Customer satisfaction is a genuine management target and the introduction of TQM culture in an organization will result in viable, sustainable competitive advantages. The emphasis of the study is on the current TQM practice in Saudi public hospitals and finding ways to improve efficiency and productivity by providing the customers with desirable quality of care, as in this way only, patient satisfaction can be achieved.

This study outlined important benefits of implementing TQM in Saudi hospitals. Quality management is important, because it ensures that the quality of care that healthy facilities deliver meets and exceeds patient needs. TQM essentially ensures that patient safety and survival rates are higher. When hospitals ensure that the quality the patient receives is improving steadily, it motivates patients to become satisfied and results in them participating wilfully in improving their health welfare. Hospital employees also enjoy job satisfaction and continued improvement in their profession as result of TQM, which includes work safety standards. For both private and public healthcare organisations, TQM implementation will result in reduced costs and better cost management, thus allowing leadership to focus resources on preventive measures rather than on curative approaches. The improved morale of nurses, doctors and other healthcare employees means reduced staff turnover, which in turn is very important in continued customer (patient) focus and satisfaction.

This study identified five key areas, or TQM critical success factors (CSFs), that managers need to address in order to implement TQM successfully in Saudi public hospitals. Throughout the discourse in this chapter, the author identified the four major areas of focus that need improvement and reinforcement.

In CSF 1, there was a need to establish a synergy between TQM and levels of understanding between employees at different levels of the organisation. In CSF 2, there must be increased emphasis on enhancing communications internally and externally on different levels,

specifically at the firm level, regionally and nationally, in the form of inter-institutional communication strategies. For CSF 3, there must be a continuous drive for enhanced competency development and training, to help employees deliver TQM practice effectively. In CSF 4, hospitals must quickly adopt or begin engaging in the institutionalisation of transformational leadership style. Finally, in CSF 5, there are related barriers to improving the quality of care, such as workplace-related barriers, administration-related barriers, barriers to the nurses and barriers that related to the patient. Responsibility for overcoming these issues should range from governmental to ground level.

CHAPTER SEVEN: CONCLUSION

Introduction

This doctoral thesis's main aim was to explore the existing state of TQM practice in Saudi Arabian hospitals, with a view to improving efficiency, productivity, and the overall quality of care provision, by gathering insights from provider and patient perspectives. Specifically, it explored and investigated the area of TQM in the healthcare sector, drawing on data from two public hospitals located in the capital city of Riyadh. TQM can be referred to as the totality of activities that an organisation implements to incorporate the full workforce through total integration and co-operation, in order to enhance full performance, which ultimately creates greater customer satisfaction as costs and products become better regulated (Deming, 1986). Furthermore, the definition by Dahlgaard et al. (1998) more explicitly integrates quality in its definition, i.e. a process in which an organisation may focus on long-term planning, using perpetual quality management, which directs an organisation towards completing its objective.

The key concepts explored in this study were TQM, quality of care (service quality) and patient satisfaction (customer satisfaction). Furthermore, the very nature of patient care as a service places the employee as a key interface with patients, and as care deliverers nurses were also of particular interest in the study. The research broadly focused on identifying context-specific issues that might create challenges in TQM implementation in the Saudi context as well as identifying critical success factors for the future sustainability of public hospitals in the KSA. Finally, the study considered the critical link between TQM and quality of care delivery and explored this relationship with respect to implications for future model building. This chapter discusses the key contributions taken from theoretical and practical perspectives, aligned with related recommendations and directions for future research. Finally, it concludes with limitations of the study.

Review of Aim

In Saudi hospitals, the current state of TQM is explored which is the aim of this research project, with a vision to increase efficiency and productivity and to better the entire quality of care provision on the basis of opinions of provider and patients. It is proven that the aim was achieved as seen in the qualitative phase comments depicted in results chapter five page (109), and in diagrams (9).

The original idea is a bit different from the means that this aim has been addressed. There were many inter-related factors included in the context and it was not possible to exclude them therefore it was highly unlikely to identify certain contextual factors with influence to improve the quality of services provided in Saudi government hospitals.

As the qualitative and quantitative results were involved, the incorporation of both thus allowed the perceptions and practices of the cohort to be recognized and gave an indication on how to improve the quality of care using TQM.

Review of Objectives

During the study various objectives of the research were explored with the help of literature review which gave an insight into the present status that TQM has to play for delivering better care.

An understanding was given by the qualitative data into the insight and practices of the TQM managers and head nurses. Particulars were given to back the development of a quantitative instrument. The quantitative data thus collected by the instrument assisted in further elaborating the qualitative data. Collectively these two data types give a complete understanding. The two data types were combined to allow a full understanding explore the concept of TQM in Saudi Arabian public hospitals and the extent to which it is understood and implemented in practice to explore the concept of TQM in Saudi Arabian public hospitals and the extent to which it is understood and implemented in practice. The second objective to identify the critical success factors needed for high quality health care provision in Saudi Arabian public hospitals from the perspectives of providers (management and nurses) and patients, which been covered by the first phase the qualitative method, this could be representative by from the whole themes in general.

The final two objectives; to study the critical link between TQM practice and the provision of high quality of care to consumers in Saudi Arabian public hospitals and make recommendations for effective implementation, this been considered from both the qualitative and quantitative as finding of the study relevant to the specific context and to the research field of quality of care and healthcare system. The final objective To determine the implications of the findings (in 1, 2, 3, 4 above) for current theory about the nature of the relationship between TQM and quality of health care provision in the Saudi and other country contexts, from the finding from the both methods the conceptual framework been designed in this chapter page (198).

Review of the Methodology

It wasn't possible to limit the research through the results because of the indulgence of both the methods of enquiry, which would have been possible otherwise. Qualitative data has been the main source of data during the study but the integration of quantitative data has assisted in getting a more thorough understanding of the research findings. The methods thus prove that for broader population by using quantitative data it is highly unlikely to make statistical assumptions. This may be considered as the limitation to the study, but in this case, quantitative results are just supposed to support and supplement the qualitative results instead of making wider implications.

The methodology provided platform for various aspects to be investigated and proven in this context.

Study recommendations

At the staff nurse level:

Nurses need to understand TQM principals and how TQM contributes to healthcare services delivery and outcomes, while at the same time ensuring effective communication between nurses and patients will ease the process of implementing TQM in hospitals.

At the head nurse level:

The head nurse must provide additional opportunities for training that are systematic and consistent with overall health education, as well as quality of care, for hospital nurses. It is necessary for nurses to complete training overseas, in addition to their education in Saudi Arabia in order deliver high-quality of care and job satisfaction.

At the health authority level (MOH)

Additional training at the managerial level needs be encouraged, to help create a positive working environment for nursing staff, which needs to be reflected in nurses' understanding of the value of TQM practice.

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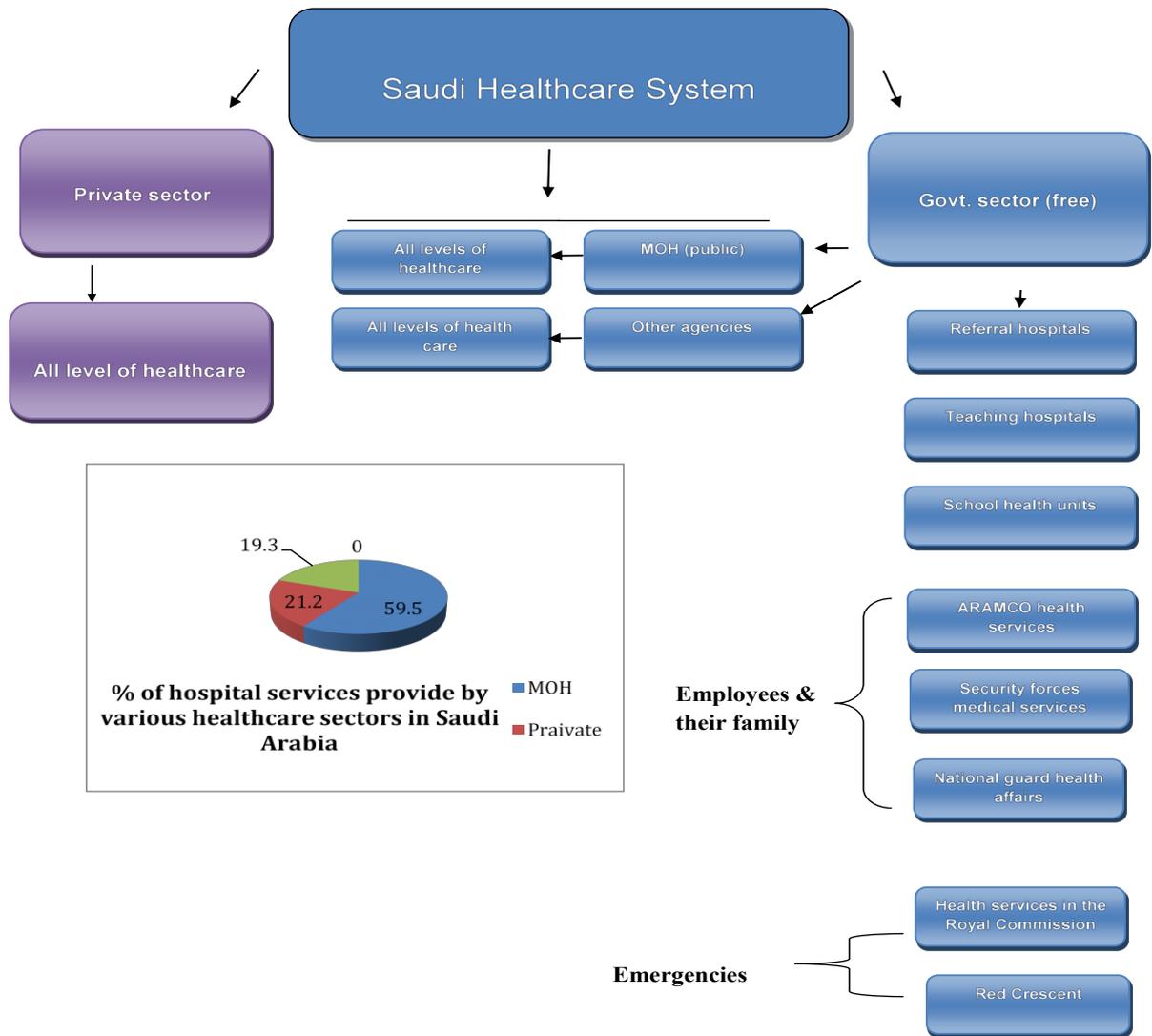
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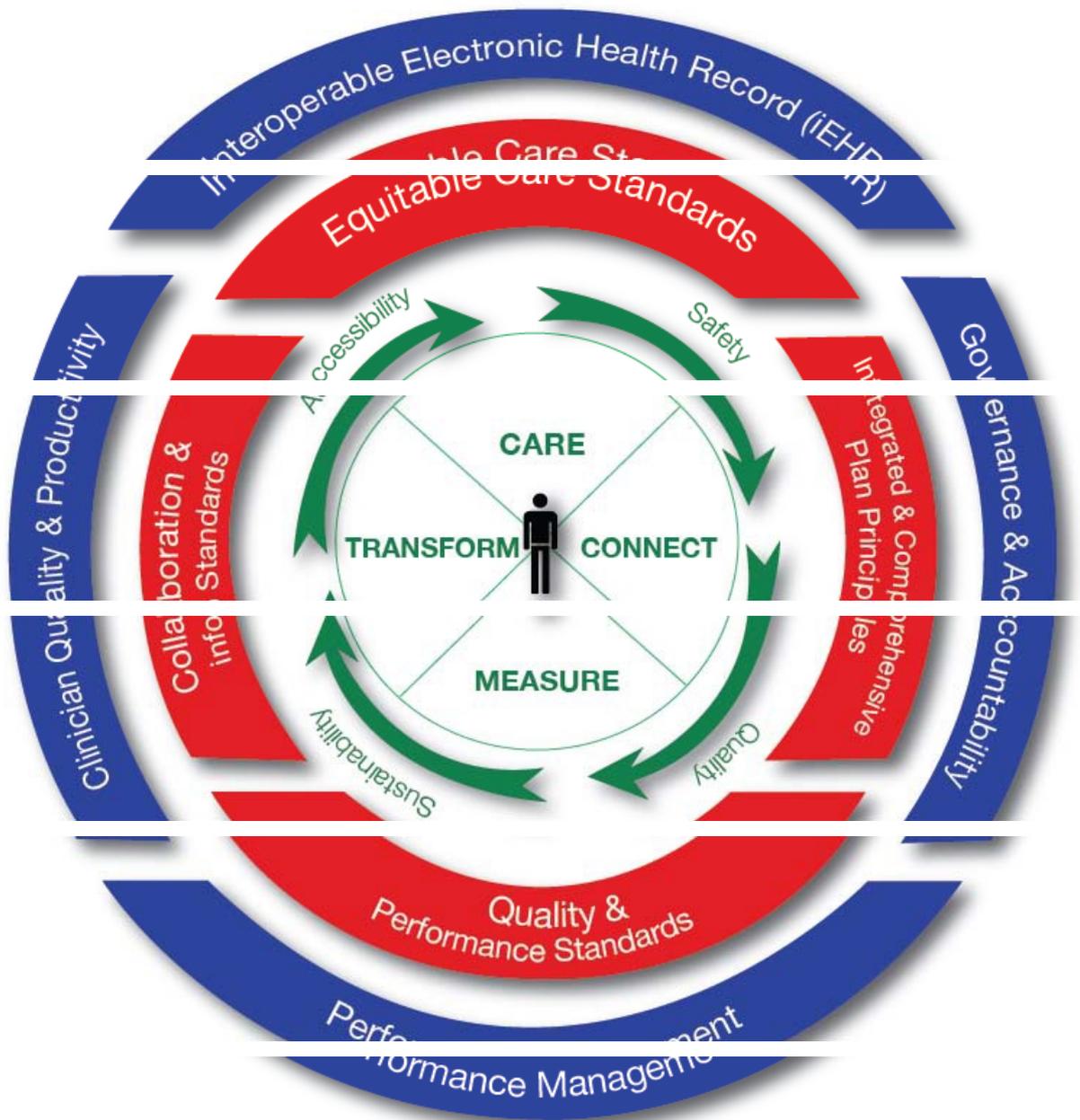
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LIST OF APPENDICES

Appendix 1: Current Structure of the Healthcare Sector in Saudi Arabia



Appendix 2: 5-Year Strategic Framework Overview

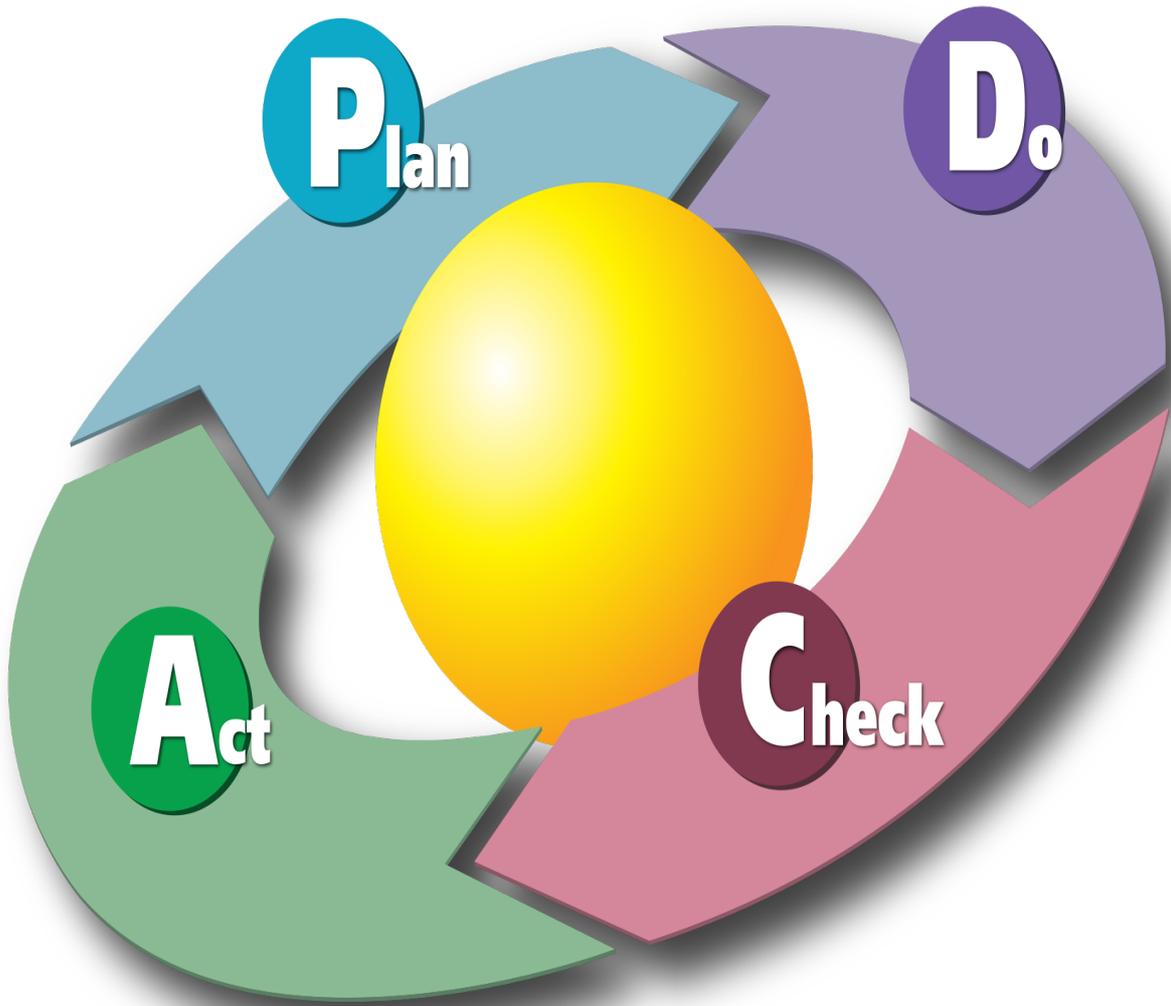


Source: Kingdom of Saudi Arabia Ministry of Health e-Health/ICT Strategy (2009).

Appendix 3: TQM definitions as reported in the definitions section chapter two

Authors	Year	Definitions
Deming	1986	All management principles will improve in development and all practices stem from the belief that perpetual quality development is imperative.
Oakland	1989	An approach for improving the competitiveness, effectiveness and flexibility of an organisation.
Berry et al	1991	a new system and corporate culture adopted to focus on meeting and exceeding the expectations of customers and clients and improves cost-effectiveness.
Oakland	1993	To meet customers' requirements through a modern form of managing to improve effectiveness, flexibility and competitiveness within a business.
Zairi et al	1994	Through ingrained emphasis on consistency, quality advancement, and enhanced competitiveness, a positive attempt by the organisations concerned to improve structural, infrastructural, attitudinal, behavioural and methodological characteristics aim to satisfy the customer or client.
Flynn et al	1994	An integrated approach to achieving and sustaining high quality output, that is structured around the maintenance and continual development of processes and defect prevention at all levels, together with all functions of the organisation, which will subsequently meet or exceed the expectations of customers.
Roosevelt	1995	All areas of an organisation are continuously improved through a strategic architecture that requires evaluation and refinement.
Dahlgaard et al	1998	A process where an organisation may focus on long term planning, through the use of perpetual quality management, which directs an organisation towards completing its objective.
Mohanty and Lakhe	2002	To continue to improving the quality of goods and services, which will be delivered through the participation of 'all' levels and functions of the organisations.
Palo and Padhi	2005	To continuously meet the expectations of customers through an integrated approach to bring continuous improvement in products and services through the utilisation of the correct tools, technology and training.
Lee et al	2010	Seeks to increase organisational management quality, as well as competitiveness and value to the customers.
ISO 9001	2015	The degree to which a set of inherent characteristics fulfils requirements

Appendix 4: Deming Cycle (PDCA) Deming (1986)



Appendix 5: Juan's Trilogy (1999)



Appendix 6: Deming's 14 Points

1	Adopt the new philosophy. The implication is that management should actually adopt his philosophy, rather than merely expect the workforce to do so.
2	Adopt the new philosophy. The implication is that management should actually adopt his philosophy, rather than merely expect the workforce to do so.
3	Move towards a single supplier for any one item. Multiple suppliers mean variation between feedstocks.
4	Institute training on the job. If people are inadequately trained, they will not all work the same way, and this will introduce variation
5	Drive out fear. Deming sees management by fear as counter-productive in the long term, because it prevents workers from acting in the organisation's best interests.
6	Break down barriers between departments. Another idea central to TQM is the concept of the 'internal customer', that each department serves not the management, but the other departments that use its outputs.
7	Eliminate management by objectives. Deming saw production targets as encouraging the delivery of poor-quality goods.
8	Remove barriers to pride of workmanship. Many of the other problems outlined reduce worker satisfaction.
9	Institute education and self-improvement.
10	The transformation is everyone's job.

The four of the most relevant to the organisation that I work in.

1	Create constancy of purpose towards improvement. Replace short-term reaction with long-term planning.
2	Improve constantly and forever. Constantly strive to reduce variation.
3	Institute leadership. Deming makes a distinction between leadership and mere supervision. The latter is quota-and target-based.
4	Eliminate slogans. Another central TQM idea is that it's not people who make most mistakes – it's the process they are working within. Harassing the workforce without improving the processes they use is counter-productive.

Appendix 7: Summary of included and review studies

Quantitative studies

Author(s)/Year/ Location	Title of study	Aims/Objectives	Main themes/outcome measures	Study design/ Methods	Sample size and selection	Results	+ Strengths - Limitations
White et al. (2016)	Barriers and facilitators of Canadian quality and safety teams: a mixed-methods study exploring the views of healthcare leaders	aimed to understand what healthcare leaders viewed as barriers and facilitators to establishing / implementing and measuring the impact of Canadian acute care QS teams	Quality and safety	Surveys and interviews for comparing region, organisation size and leaders position	249 participated in surveys and 89 were interviewed	Five qualitative themes overlapped with quantitative data: (1) resources, time, and capacity; (2) data availability and information technology; (3) leadership; (4) organizational plan and culture; and (5) team composition and processes	+ Leadership of hospitals can use strategic directions, enhance quality culture to achieve Quality Services - Study is focused on Quality of service only as element of TQM
Ishfaq et al., 2016 Saudi Arabia	Measuring Quality of Service from Consumer's Perspectives: A Case of Healthcare Insurance in Saudi Arabia	To use the SERVQUAL model and identify gaps in the quality of healthcare in Saudi Arabia.	The success of transforming Saudi healthcare insurance system from public to independent private sector depends upon the quality of service	Cross-sectional survey (Likert Scale 1 – 5 agreement)	400	Of the five SERVQUAL dimensions measured (responsiveness, assurance, tangibles, empathy, and reliability), it was observed that reliability was the only one with a negative gap, indicating dissatisfaction with the reliability of the service.	The research focused on a single region and should be extended countrywide to eliminate the possibility of regional bias in results.

			acceptable to the public at large. Improving service quality in the region.			The next dimension requiring immediate improvement was assurance. Overall, there was a moderate level of satisfaction with the other dimensions.	
Weng et al. 2015, Taiwan	Exploring the impact of transformational leadership on nurse innovation behaviour: A cross-sectional study	This study explored the influences of transformational leadership on nurses' innovation behaviour and the mediating role of organisational climate.	nursing outcomes, transformational leadership, Nursing innovation , climate, patient safety	Cross-sectional survey Hospitals in Taiwan	439	Organizational climate has a significant impact on innovative behavior. Transformational leadership has indirect effects on innovation behavior via the mediation of patient safety and innovation climate.	The study was limited to a single country context and should be extended to other national contexts.
El Bcheraoui et al., 2015 Saudi Arabia	Access and barriers to healthcare in the Kingdom of Saudi Arabia, 2013: findings from a national multistage survey	To identify barriers to healthcare in the Kingdom of Saudi Arabia	Health survey, individual factors, preventive care. How chronic conditions may influence diagnosing and treating hypertension,	Cross-sectional survey (Saudi Health Interview Survey (SHIS))	10,735 attended the clinic over two months in 2013	Women were more likely to be diagnosed with chronic health conditions. The health system needs to actively seek out undiagnosed patients through organized screening programmers, and national mass screening activities. Health education is essential as it is noted Saudi nationals are not taking advantage of available health services.	It is difficult to assess causality since the study was not longitudinal in nature. Our study could not assess system-based factors that affect healthcare behavior of the Sauc population.

<p>Hussein, KAUH, 2014 Saudi Arabia</p>	<p>Relationship between nurses' and physicians' perceptions of organizational health and quality of patient care</p>	<p>To investigate the relationship between ICU nurses' and physicians' perceptions of the organisational health of a hospital and quality of patient care, and to assess and compare their perceptions.</p>	<p>Among the determinants of hospital health in the modified Quality Work Competence questionnaire (12 domains) [Likert Scale 1 -4) Quality of patient care questionnaire (33 items). Themes; patients centered care effectiveness, safety, timeliness, efficiency, and equity.</p>	<p>Cross-sectional survey Comparative correlation design approached nurses and doctors in 4 ICUs in KSA; Pediatric, neonatal, medical, and surgical</p>	<p>Nurses 75 Doctors 49 with response rate of 97% for both nurses and doctors. Non Random sample</p>	<p>Teamwork was the highest scoring domain among the hospital health determinants characterizing participants' work environment. Participants gave lower ratings to domains of effectiveness, patient-centered care and safe care. In the quality of patient care questionnaire, quality result was the greatest predictor and was positively correlated with the determinants of organizational hospital health.</p>	<p>Self-reported questionnaire Not multi-centered. There was no sample calculation to detect the minimum sample size for data analysis. They used parametric statistics while data the questionnaires were all non-parametric, in this case Chi-Square might be more useful.</p>
<p>El-Jardali et al, KKUH and AAUH, 2014 Saudi Arabia</p>	<p>Patient safety culture in a large teaching hospital in Riyadh: baseline assessment, comparative analysis and opportunities for improvement</p>	<p>To conduct a baseline assessment of the patient safety culture in a large hospital in Riyadh. To compare results with regional and international studies that utilise the same tool. The study was</p>	<p>Patient safety culture Predictors of improvements; teamwork, continuous improvement, Need to give priority to patient safety culture Assessments in health organizations and more</p>	<p>Cross-sectional survey Hospital Survey on Patient Safety Culture (HSOPSC)</p>	<p>2572 with response rate of 85.7% Convenient sample</p>	<p>The dimensions with the highest positive score were Organizational Learning and Continuous Improvement (79.6%), and Teamwork within Units (78.5%). The lowest scores were in the dimensions of Hospital non-punitive response to error (26.8%), Staffing (35.1%) and</p>	<p>Translating and piloting the questionnaire may increase validity of the study findings. Lack of rigorous statistical analyses (Cronbach-α values ranged between 0.214–0.892; internationally accepted values generally >0.6). Has only accounted for HCP perception in patient safety, but has not</p>

		conducted to 'Explore the association between patient safety culture predictors and outcomes, taking into consideration respondent characteristics and facility size'.	importantly, to make changes to improve quality and patient safety.			Communication Openness (42.9%). Comparing with other regions (USA and Lebanon): KSA fared better in dimensions of Teamwork across Hospital Units, Hospital Handoffs and Transitions, and Organizational Learning and Continuous Improvement. Compared to Lebanon, KSA scored lower in: Communication, Openness and Overall Perception.	asked patients themselves. Questionnaire-based.
Khalifa, 2014 Saudi Arabia	Technical and human challenges of implementing hospital information systems in Saudi Arabia	The main objective of this study was to identify, analyze and evaluate technical and human challenges perceived by healthcare professionals to the adoption of HIS in order to provide system implementers with suggestions on proper actions.	Technical challenges, human challenges, Hospital information systems	Cross-sectional survey	153	Government hospitals had more complains and concerns than private hospitals, where systems are old and not satisfying the increased needs and in the same time the hospital doesn't have the experience to go with hospital information systems implementation in terms of technical infrastructure and maintenance. Challenges related to software and hardware were the major	Since it is a cross sectional study there is inherent bias of making assumptions based on a snapshot of one point in time. It was not clear how 10735 participants were approached in two months.

						challenges affecting implementation of hospital information systems.	
Alaraki (2014) Saudi Arabia	The impact of critical total quality management practices on hospital performance in the ministry of health hospitals in Saudi Arabia.	Exploring the impact of applying TQM practices on hospital performance in Saudi Ministry of health	TQM, hospital performance, Leadership. Continuous improvement, process improvement, and communication.	A Likert Scale questionnaire (1-strongly disagree – 5 strongly agree) included questions on leadership, employee management, information analysis, training, customer focus, continuous improvement, process management, and supplier management	A convenience sample of 400 from 4 hospitals in KSA with response rate of 67.25% (269 nursing participants)	The findings of the research show a significant positive correlation between the 8 practices of TQM and hospital performance. The study also revealed that Saudi hospitals are facing difficulties in engaging the clinical staff in their quality initiative. Moreover, our findings show that accredited hospitals have significantly applied TQM practices more than unaccredited hospitals.	No specific limitations identified Parametric data analysis tests like ANOVA and Correlation were used for non-parametric variables like gender and Likert scale items
Al-Borie et al (2013) Saudi Arabia	Patients' satisfaction of service quality in Saudi hospitals	The study seeks to provide guidelines to the on-going Saudi Arabia health service organisation	Compares patient satisfaction with service quality in Saudi Arabian public and private sector hospitals	Quantitative Study In 5 hospitals in KSA using SERVQUAL scale with 5 dimensions; tangibles, reliability, responsiveness, safety and empathy Data analysed using SPSS	Stratified sample with a total of 1000 inpatient from the five public and private hospitals	The results showed that sex, education, income and occupation were statistically influencing inpatients' satisfaction, and all the null hypotheses were rejected. Only inpatient age was not significant.	the study did not include other key variables that are related to service quality, like leadership and organizational design Validity of the study would be increased with translation of the questionnaire

Al-Homayan et al. (2013) Saudi Arabia	Impacts of Job Performance Level on Nurses in Public Sector Hospitals	Analysis the impacts of job performance level on nurses' performance working in public hospitals.	Determinants of job performance among nurses in public hospitals in the Kingdom of Saudi Effectiveness if employees	Survey questionnaire	380 nurses of 44,719 - based on sample calculation	Impacts of job performance level on nurses' in public sector hospitals in Saudi Arabia. Social exchange theory and negative linear theory that may help nurses' managers to realize nurses' performance behaviour. Study found direct significant relationship among the tested job demands and resources variables with nurses' job performance	Data cannot be transferred to relate to Private Sector Hospitals Pilot test might increase the validity of findings.
Awuor (2013) Kenya	Total Quality Management Practices in Selected Private Hospitals in Nairobi, Kenya.	To assess the existence of total quality management systems in selected private hospitals in Nairobi, Kenya	Total quality management, quality management systems, and performance management.	Structured and semi structured questionnaires	160 managers from different levels; administrative level managers, executor managers and operative managers. Convenient sampling for top levels and	TQM among healthcare providers is a way of managing to improve the effectiveness, flexibility, and competitiveness of the healthcare facilities and services provided. It is also a method of removing waste, by involving everyone in improving the way things are done.	+ Importance of TQM in running good organisation - Case study is weak design -Research covers only private hospitals and not public hospitals

					stratified randomised for middle level.	TQM is part of what is needed to run a good organisation.	
Atallah et al, KKUH, 2013 Saudi Arabia	Patients' satisfaction with the quality of nursing care provided: The Saudi experience	To examine the patients' satisfaction with quality of nursing care provided in Saudi Arabia	Patients' satisfaction and quality of care	Cross-sectional descriptive correlation design Structured interviews	100 patients from one regional hospital in Saudi Arabia	100 agreed to participate with an agreement rate of 40%. 'Patients have a high level of satisfaction with nursing care provided (86%), although certain aspects of nursing care such as language, information giving and attentiveness, were identified with lower rates' (Less than 50% agreement).	Selection bias: only those who expressed interest in Participation were asked to fill out the questionnaires' polarized results. Not multicentre sample.
Al-Mahmoud et al. 2012 Saudi Arabia	Saudisation of the nursing workforce: Reality and myths about planning nurse training in Saudi Arabia	This study aims to contribute to the understanding of the reasons for the shortage of Saudi nurses and identify possible strategies to alleviate that shortage by focusing on the training pathway of Saudi nurses	Nurse training, nurse workforce, planning for Saudisation of nursing workforce measuring themes like number of places, year of establishment, type and length of degree, year the degree awarded, and percentage of graduates employed	Self-completed questionnaire with 12 questions; closed ended with some open ended questions	99 healthcare institutions in KSA Military 10, MOH 37, MOHE 3, and Private 49 institutions.	It was found there has been a great increase in the number of places, but the vast majority is at Diploma level. Considerable regional disparities were observed and the private sector is playing an increasing role in provision. Whilst males have over half the places there is no degree-level provision for them. Provision was almost in East West, and Middle of the Kingdom but not South or	No specific limitations identified Some female institutions were contacted by phone as they rejected visits by male researcher

						North which made applicants to go from their areas to these areas to obtain these degrees. Male graduates were immediately employed than females. Higher diploma was the majority of entrants to the profession.	
Tang, 2012 China	Assessment of medical service, and trust in health delivery system on patient's life satisfaction in China process	To test whether and to what extent patient's satisfaction with medical service delivery/patient's assessments of various major aspects of medical service/various major aspects of patient's trust in health delivery system influenced patient's life satisfaction in China's health delivery system/in various kinds	Patients, satisfaction, service delivery, doctor-patient communication, health delivery cost,	Quantitative Survey in 17 provinces in China with collaboration with National Bureau of Statistics	Probability sample of 3,508 with 3386 responded (96.52%) Patients in 17 provinces	Patients, satisfaction was improved with improving of medical services delivery, reduction of medical cost, promotion of medical facility and hospital environment, reduction in waiting time, and promotion of patients, trust in medical services.	+ Randomisation of sample + + Measures different perspectives of health service from patient's point + Conducted jointly with professional survey teams from national bureau of statistics and local bureaus of statistics

		of hospitals					
Wahabi et al, KKUH, 2011 Saudi Arabia	Attitude and practice of the healthcare professionals towards the clinical practice guidelines in King Khalid University Hospital in Saudi Arabia	To explore the opinion and practice of the healthcare professionals in KKUH in the use of clinical practice guideline CPGs.	Clinical practice guidelines	Cross-sectional survey (5-Likert Scale [strongly agree to strongly disagree])	2225 healthcare professionals KKUH in Saudi Arabia with response rate of 56.5% (1257); physicians (191), nurses (916), Physiotherapists (20), Pharmacists (38), Dentists (21), Dieticians (8), and Technician (63). Response rate for physicians = 25% and for nurses = 71.5%.	1257/2225 (56.5% response rate). Cronbach's $\alpha=0.67$. Most respondents had a positive attitude to the use of CPGs in decision-making. >90% thought that they were effective in unifying and improving the quality of patients' care. 97% respondents agreed that CPGs were a good educational tool. <50% respondents agree that clinical practice should be based on scientific evidence all the time. Overall, there is a good positive attitude towards the use CPGs in clinical practice, CPGs changed the way they manage their patients. Nurses were more likely to use CPGs than doctors and other healthcare professionals. Findings also differed with years of experience.	The low response rate of the physicians (25%) might affect the external validity of the survey and hence the extrapolation of the results to the whole population of physicians in KKUH

Herman (2011) USA	Patient-Centered Culturally Sensitive Healthcare: Model Testing and Refinement	To explain and improve healthcare for ethnically diverse patients seen in community-based primary care clinics	Culture diversity, cultural sensitive care Patient-centered culturally sensitive healthcare	Questionnaires (10 subscales) Two-group path analyses	African American- 110 and non-Hispanic White American – 119 African American and non-Hispanic White American patients	Significant links between patient-perceived provider cultural sensitivity and adherence to provider treatment regimen recommendations, with some differences in associations emerging by race/ethnicity	+ recognised culture as factor +Measures of provider cultural sensitivity used in this study are race-specific -Does not present a refined model that could include other predictors of interpersonal control. which could address the potential moderation, rather than mediation, role of interpersonal control -lack of evidence for the construct validity (e.g., convergent, divergent, or predictive validity) of the investigated variables.
Alolayyan et al. (2011) Saudi Arabia	The influence of total quality management (TQM) on operational flexibility in Jordanian hospitals: Medical workers' perspectives	To address this gap by exploring the extent of the application of TQM and its influence on operational flexibility in Jordanian hospitals	The influence of TQM in operational flexibility	Quantitative survey questionnaires with 43 items measuring eight constructs of TQM with ten items measure operational flexibility	Convenience sample of 400 with (231) 57% response rate King Abdallah University Hospital (116) and Jordan hospital and medical centre (115)	There is a significant positive relationship between TQM and operational flexibility TQM as an independent variable has a positive impact on operation flexibility to the extent that an improvement to TQM practices in the Jordanian hospitals will lead to an increase in the	+The questionnaire was assessed by five experts for validity -Small sample size Continuous improvement is required to increase TQM

					Managers, senior officers, heads of department, supervisors, registered nurses or medical staff, and doctors	intensity of operational flexibility The higher the years of working experience of a member of staff, the more he/she perceives the important of TQM and its facilitation to the enhancement of operational flexibility in Jordanian hospitals	
Al-zubi and Judeh (2011) Jordan	Measuring the Implementation of Total Quality Management: Ibn Al-Haytham Hospital Case Study	To examine the extent to which Ibn Al-Haytham Hospital in Jordan, as a case study, implemented TQM constructs	The influence of demographics such as gender and age on TQM	Case study	Sample = 194 of 250 (77.6%) response rate Employees in Hospital Quantitative questionnaires (Five-point likert scale 1=strongly disagree to 5 strongly agree) The questionnaire included 33	The results indicated that: Ibn Al-Haytham Hospital in Jordan is currently attaining a relatively above average level of TQM implementation there were no significant differences in the respondents' perception on TQM implementation due to gender or age. there were significant differences in the respondents' perception on TQM implementation due to	+ For the purpose of construct validity, four experts were approached and consulted with the questionnaire, and their remarks were considered -Using parametric statistics for non-parametric data (Likert scale is categorical data and Chi-Square should be used here instead of t-test)

					statements covering the seven constructs of the study: customer focus, employee involvement, management commitment, teamwork, continuous improvement, training, and organizational culture	education level or years of experience	
Walston et al. (2010) Saudi Arabia	Factors affecting the climate of hospital patient safety: A study of hospitals in Saudi Arabia	To describe 3 organizational dimensions that influence hospital patient safety climate	Patient safety climate in hospitals. Organisational culture	Cross sectional hospital survey	800 Hospital managers with 496 (62%) completed the questionnaire	Saudi Arabian Ministry of Health may have a better patient safety climate than the others. therefore, the MOH appears to have a better patient safety environment Discussion of providing optimal services and decreasing errors in hospital services	.+ The questionnaire was produced in English and Arabic languages -The statistical systems in the country are limited or Unavailable -The study represents a cross-sectional survey of hospital employees' patient safety perceptions and involved only patient care providers

						The radical changes in undertaking in SA including hospital privatisation affected the study	-The study was conducted in a developing country that is extensively modifying its healthcare system and need to be replicated in multiple countries
Emine Kale (2010) Norway	Language barriers and the use of interpreters in the public health services. A questionnaire-based survey	To examine cross-cultural communication in health-care settings, this has implications for equal access to health services. We studied how often health-care workers experience a need for language assistance, what they do in such situations, what expectations they have of the interpreters and their evaluation of competency needs.	Need for interpreter, expectation of interpreter's role, and competency of interpreter and healthcare workers.	quantitative cross-sectional design	453 from 1290 questionnaires (35.1% response rate; 51.1% nurses and 26.6% physicians) was distributed to health workers in three districts in Oslo.	60% of the participants responded that the need for an interpreter when communicating with a new patient was often assessed from the background information in the referral, i.e., when such a need was directly or indirectly mentioned. Doctors needs interpreters more than nurses as they may need to do more like assessment, examinations and further communications. Reason for not using interpreters were either inability to access them, time, poor planning and using family, some financial reasons and sometimes patients	Did not include the patient's or the interpreter's perspective on language barriers. Nothing mentioned about sample size justification.

						<p>themselves do not want the interpreters.</p> <p>So healthcare workers were influenced by situation when deciding whether they need interpreters.</p>	
<p>Al-Ahmadi (2009)</p> <p>Saudi Arabia</p>	<p>Assessment of patient safety culture in Saudi Arabian hospitals.</p>	<p>To evaluate the extent to which the culture supports patient safety at Saudi hospitals</p>	<p>Culture and maintaining safety culture in healthcare in hospitals in KSA</p>	<p>Quantitative questionnaire (Likert scale) distributed to health professionals in 13 hospitals representing three health sectors; military, ministry of health and university hospitals</p> <p>The questionnaire included 42 items and measured different dimensions of safety culture; communication about errors, non-punitive response to error, teamwork across units and teamwork</p>	<p>223 healthcare professionals (nurses, technicians, managers, and medical staff)</p> <p>Stratified and convenience sampling was used</p>	<p>Hospitals selected for the study were applying team work, continuous improvement, error communication, non-punitive response to errors were all features of successful leadership which consequently produced safety culture in most of hospitals.</p>	<p>+ leadership and health professional role in patient's safety initiative in Saudi Arabia</p> <p>-No discussion of how fear of blame and open communication will support patient safety culture</p> <p>-Using parametric statistics for non-parametric data (Likert scale is categorical data and Chi-Square should be used here instead of t-test)</p>

				within units			
Al-Ahmadi H (2009) Saudi Arabia	Factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia	to identify factors influencing performance of hospital nurses in Riyadh Region, Saudi Arabia	Performance Nursing performance Job satisfaction Organisational commitment.	Quantitative questionnaire	All nurses (1,834) from 15 hospitals with 923 responded 50.2% From 15 hospitals were randomly selected	Job performance is positively correlated with organizational commitment, job satisfaction and personal and professional variables Both job satisfaction and organizational commitment are strong predictors of nurses' performance Job performance is positively related to some personal factors, including years of experience, nationality, gender, and marital status Level of education is negatively related to performance.	- All measures used are based on self-reports, which might have the problem of common method variance, and social desirability effects
Withanachchi et al. (2007) Sri Lanka	TQM 5-S principles at public hospitals in developing countries	to evaluate an organizational development programme (TQM) that was implemented at the	Total quality management, performance, factors to improve performance,	Balanced scorecard to assess the performance of the hospital and value chain analysis to identify changes in	750 out of 766 (90%) were interviewed, of these 62% were from quality team	Improvement in service quality and employee performance, and social responsibility. The 5-S system based was feasible and was the short plan	+ This study its value for the hospitals managers, Discussed many aspects such a supply chain management, Total quality management, Hospitals, Developing

		tertiary-care public hospital that showed the highest total factor productivity growth in Sri Lanka for the 1997-2001 period		organisational management after TQM Program. Case study using Questionnaire-based interviews		to improve management in developing countries. TQM was the long-term plan to improve quality Leadership, team-work (87%), and continuous monitoring (83%), and training (80%) were the key factors that facilitated the implementation of 5-S system. 90% believed that leadership was important in quality improvement. Only 25% said financial support was very important.	countries, Organizational development -Case study is known as weak design
Mosadegh Rad (2006) Iran	The Impact of Organizational Culture on the Successful Implementation of Total Quality Management	Determine the impact of cultural values on the success of TQM implementation in Isfahan University Hospitals	Organisational culture, values and beliefs in the implementation of TQM in Iran Hospitals	Survey Questionnaires for success (Likert scale with 82 items measuring TQM success (52) and barriers (30) Responses = 5 very high to 1 very low Questionnaire for organisational culture measuring	Stratified random sample of 679 of 762 (90.26%) completed questionnaires Hospital employees and managers	TQM leads to improvement in customer satisfaction, senior management commitment to developing high quality management system, employees' motivation, self-assessment, social responsibility, and more. Barriers were low salaries, cultural barriers, lack of education and training, lack of effective and efficient	+ High response rate + Random sample -Only relates to the findings in Iran - Using parametric statistics for non-parametric data (Likert scale is categorical data and Chi-Square should be used here instead of t-test)

				characteristics of organisation		employees for TQM implementation, lack of legal forces, lack of patient knowledge Demonstrates that TQM requires a quality-oriented organizational culture	
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Qualitative studies

Author(s)/Year/ Location	Title of study	Aims/Objectives	Main themes/outcome measures	Study design/ Methods	Sample size and selection	Results	+ Strengths - Limitations
Terzic-Supic (2015) Serbia	Training hospital managers for strategic planning and management: a prospective study	To determine the learning outcomes after a specific training program for hospital management teams	Formal and informal training programs Hospital management team.	Participants were evaluated before and 12 months after the training program) Principle Component Analysis and subsequent stepwise multiple linear regression analysis	107 individuals involved in the management in 20 Serbian General Hospitals (Multidisciplinary team; head nurse, deputy manager, chief of support services, and director of the general hospital)	Improvement of quality of SWOT analysis Following the training program, the external environment, strategic positioning, and quality of care were all predictors of learning outcomes. Training program was with positive effect on the ability to formulate a strategic plan comprising mission, vision, strategic objectives, and action plan.	-Small sample size There are no comparative studies from the same country

<p>Glenn et al., 2014</p> <p>USA</p>	<p>Nursing practice in the intrapartum setting, nurses perspective on complexity, relationship and safety</p>	<p>To explore the nurses' perspectives on their caring practice of the woman in the second stage of labour in the complex adaptive system of healthcare</p>	<p>Nurses' perspectives on caring practice</p>	<p>Qualitative hermeneutic phenomenology Semi-structured interviews</p>	<p>13 labour and delivery nurses recruited through personal contacts with investigator, distribution of fliers and notifications on the electronic messaging system</p>	<p>Nurses considered complexity in providing care in their practice in second stage of labour Team work was recognised by nurses to promote care providing Nurses' perspectives about the provision of caring nurse practice was affected by interactions with team members, challenges related to documentation; and respect for natural birth</p>	<p>+ Study primarily interviewed nurses on safety and relationship focused nursing model -Small sample size from one unit - The education backgrounds and years of experience varied greatly, making generalizations to a population of labour and delivery nurses difficult - Interpreting phenomenon from the data collected is subject to alternative perspectives by investigators</p>
<p>Almutairi 2014</p> <p>Saudi Arabia</p>	<p>Understanding Cultural Competence in a Multicultural Nursing Workforce Registered Nurses'</p>	<p>The purpose of this study was to explore notions of cultural competence with non-Saudi Arabian nurses working in a major hospital in Saudi Arabia.</p>	<p>multicultural nursing workforce, cultural competence, qualitative analysis,</p>	<p>Face-to-face, recorded, and semi-structured interviews Data was analysed using Campinas Barcode's Cultural Competence Model</p>	<p>24 interviews</p>	<p>Non-Saudi nurses in the culturally diverse environment struggled with the notion of cultural competence in terms of each other's cultural expectations and those of the dominant Saudi culture. learn coupled with adequate organizational support and</p>	<p>The used of model for data collection and analysis does account for all nurses' experiences which might indicate that study findings would not be compared against experience of nurses</p>

	Experience in Saudi Arabia					Resources learn coupled with adequate organizational support and Resources.	
Koivunen et al (2011) Finland	The role of Nurse in systematic patient education sessions in psychiatric nursing	To gain understanding of nurses' expectations of their roles in systematic patient education in psychiatric inpatient care	Systematic patient education and conventional patient education	Qualitative Design Content data analysis (inductive)	Fifteen interviews (10 group interviews (Focus groups) and 5 individual interviews) with nurses implementing systematic education (14) and those implementing conventional education (16)	Nurses were all able to deliver patient education (systematic and conventional) based on their individual needs and according to their mental status. Different roles were highlighted for nurses; learner, advisor, collaborator, teacher, and limiter. However, these roles should not be rigid and can be manipulated according to patient's individual needs.	Small sample size (qualitative)
Kaariaine and Kyngas, 2010 Finland	The quality of patient education evaluated by health personnel	Describe the quality of patient education evaluated by health personnel	Patient education resources and implementation. Knowledge and attitudes of health personnel	Qualitative structured interviews) with 77 items.	916 with 93% of them were nurses and 7% were physicians	A majority (85%) had good knowledge on treating an illness Most members (93%) of the health personnel implemented patient-centred patient education. variables their gender, profession, age and work	+ The validity and reliability of the instruments was evaluated on the part of content, face, construct and internal validity. Content and face validity was evaluated in different phases of

						<p>experience were connected to their knowledge on treating an illness</p> <p>Interaction skills were evaluated to be the best patient education skills</p> <p>Lack of time, unsuitability of conditions and the shortage of equipment were all problems in patient education.</p> <p>Health personnel were able to use verbal and individual patient education very well, whilst other methods of patient education were used less well and more infrequently</p>	<p>developing the instrument in evaluation sessions by experts of nursing and nursing science</p> <p>+ Large sample size represented 85% of population with response rate of 65%</p> <p>- Despite the rather large sample size, the generalization of the results is limited by the regional representativeness of the sample and the amount of nonresponse</p> <p>Sampling has limitations</p> <p>Confusion in the findings</p>
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Mixed Methods studies

Author(s)/Year/ Location	Title of study	Aims/Objectives	Main themes/outcome measures	Study design/ Methods	Sample size and selection	Results	+ Strengths - Limitations
Gherbal N. and Shibani, A. (2012)	Critical Success	To identify critical success factors	management,, communication,	Mixed methods (Quantitative and Qualitative)	Sample: Convenience sample 130 of	five reliable and valid TQM dimensions, namely	+ Mixed methods gives power to the study each one method

Libya	Factors of Implementing Total Quality Management in Libyan Organisations	(CSFs) that affect the implementation of TQM in Libyan Construction Industry	training and development, employee involvement and recognition, and culture	Quantitative and qualitative research methods Likert scale 1 strongly disagree to 4 strongly agree	200 questionnaires giving response rate of 65% Health careHealthcare organisations Qualitative part	organisation management, communication to improve quality, training and development, employee involvement and recognition, and culture	fills in the gaps of the other method. + Translation of the questionnaire may increase its validity - Not clear and not much details about the qualitative part of the study (interviews).
Al Awa et al, KAUH, 2011 Saudi Arabia	The impact of accreditation on patient safety and quality of care indicators at King Abdulaziz university hospital	To determine the impact of accreditation on quality of patient care and patient safety as perceived by nursing staff.	Accreditation process, Patient safety and quality, quality of care indicators; health associated infections, mortality, medication errors	Retrospective and prospective study design	81 patient safety and quality indicators: Mortality (15) Health careHealthcare associated infections (26) Medication use (5) Blood utilization (2) Surgery (7) CPR (8) Adverse events (18)	All indicators were sensitive to the Accreditation process which has an overall statistically highly significant perceived improvement on quality of patient care and patient safety.	Subjective–nurse based perceptions via questionnaire conducted retrospectively. Some figures were not defined and lacked classification taxonomy.
Douglas and Douglas (2005) UK	Patient-centred improvements in healthcare built	To explore patients' perceptions of health-care built environments, to assess how they	Patients support and voluntary workers who met periodically at the hospital to discuss present and future healthcare concerns	Mixed method study (Quant. andQual)	50 interviews 35 patients (auto photographic)	The future groups provided suggestions about radical improvements; Transport issues, accessibility and	Small sample size for quantitative part compared to the total population

	environments: perspectives and design indicators	perceived health-care built facilities and designs. To develop a set of patient-centred indicators by which to appraise future health-care designs	with the hospital's executives. Initial elemental attributes that they considered necessary for a patient's friendly hospital environment		Novice-Expert exchange (40 novice patients with experts of workers 8 focus groups 2200 questionnaires for past inpatients (since 12 months) with 785 response rate (37%) At Salford Royal Hospital Trust Non random sample	mobility, ground and landscape designs, social and public spaces, homeliness and insurance, cultural diversity, safety and security, personal space. Facilities for recreation and leisure. Those past inpatients provided their opinions with main concerns; limitation of private space around bed area, supportive of privacy and dignity, ward noise and other disturbances. Controllable lighting for a natural and homely environment, confidence and assurance, temperature control for personal comfort and relaxation, accommodation for visitors, and shops and personal services and more.	The study used multiple methods to approach and compare different groups with different experiences which may give more comprehensive feature of the study.
Floor Rosse (2015) Netherlands	Language barriers and patient safety risks in hospital care.	investigates patient safety risks due to language barriers during hospitalization	Language barriers, lack of noticing report, patients' safety, risks related	A mixed methods study in 4 Dutch Urban hospitals Patients questionnaire during hospitalisation, and record review after discharge	576 from 1339 patients in 30 participating wards	Language barrier threatened patient safety included daily nursing tasks (i.e. medication administration, pain management, fluid balance	Using mixed methods may have increased strength of the study. This would also provide data for triangulation limitation is the small number of cases sampled for the qualitative part of this study and the

			to language, communication Language proficiency	Interviews with 17 admissions with inadequate Dutch proficiency.		management) and patient–physician interaction concerning diagnosis, risk communication and acute situations. In 30% of the patients that reported a low Dutch proficiency, no language barrier was documented in the patient record due to language interpreters.	small number of interviews., but this was reduced by triangulation. Another limitation was the limited number of hospitals which limits the generalizability broader.
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Review studies

Author(s)/Year/ Location	Title of study	Aims/Objectives	Main themes/outcome measures	Study design/ Methods	Results	+ Strengths - Limitations
Awuor (2013) Kenya	Total Quality Management Practices in Selected Private Hospitals in Nairobi, Kenya.	To assess the existence of total quality management systems in selected private hospitals in Nairobi, Kenya	Total quality management, quality management systems, and performance management.	Literature review	TQM among healthcare providers is a way of managing to improve the effectiveness, flexibility, and competitiveness of the healthcare facilities and services provided. It is also a method of removing waste, by	+ Importance of TQM in running good organisation - Case study is weak design -Research cover s only private hospitals and not public hospitals

Alkhenizan and Shaw (2011) Saudi Arabia	Impact of Accreditation on the Quality of Healthcare Services: a Systematic Review of the Literature	To evaluate the impact of accreditation programs on the quality of healthcare services	Accreditation programs improve clinical outcomes of a wide spectrum of clinical conditions	Systematic Literature Review	A lot of evidence exists that demonstrate that accreditation programs increase the benefits of clinical outcomes in relation to many conditions.	Descriptive study were no data collection such as interview or survey
Talib et al. (2011) India	Best Practices of Total Quality Management Implementation in Healthcare Settings	Identify a set of TQM practices that are helpful and are applicable in healthcare setting for resolving their problems effectively	Eight supporting TQM practices, such as top-management commitment, teamwork and participation, process management, customer focus and satisfaction, resource management, organization behavior and culture, continuous improvement, and training and education were identified as best practices for TQM implementation in any healthcare setting	Literature Review 15 studied research publications	Eight important TQM practices were identified for additional research to discuss, develop, and work upon	+ Inconsistency in findings between the studies and the present study
Albejaidi 2010 Saudi Arabia	Healthcare System in Saudi Arabia: An analysis of structure, Total quality management and future challenges	Discusses the healthcare system in Saudi Arabia with emphasis on the level of development, structure, and implementation of TQM.	<ul style="list-style-type: none"> •The healthy economic profile of the country empowered the Saudi government to modernise its health sector and this development has attracted medical professionals from all over the world. • The quality management departments need help from MOH 	Literature review	Healthy economic profile of the country empowered that the Saudi government to modernise its health sector and this development has attracted medical professional.	<ul style="list-style-type: none"> + Comprehensive study covers all the healthcare sectors. + Linked the healthcare sectors with economy state. -The study doesn't discuss the TQM in depth.

			to employ qualified quality Management specialists and to have sufficient equipment's and also to conduct quality-training programmes			
Wardhani et al. (2009)	Determinants of quality management systems implementation in hospitals	To identify the problems and facilitating factors in the implementation of quality management system (QMS) in hospitals through a systematic review	Teamwork and innovation, assumption of change and risk taking, play as the key success factor in QM implementation	Literature review 14 publications been selected	The review founds that there are six important factors identified in this review: the organization culture, design, quality leadership, physician involvement, quality structure and technical competence	+ Discuss the QMS in depth + Analysed organization culture and design and quality structure + The study involved physicians -Limited numbers of studies reviewed

Appendix 8: Nurses' Questionnaire

Research study: Nurses' Questionnaire
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Questionnaire Instructions:

- The questionnaire should take approx. 20 minutes to complete
- Please try NOT to leave any question without an answer
- The information you provide will be used for research purposes only
- Any information you provide will be CONFIDENTIAL and ANONYMOUS
- If you any further queries, please contact the researcher by email at
i.e.m.alqasimi@edu.salford.ac.uk
- Please take note of the abbreviations below

Abbreviation	Its meaning
TQM	Total Quality Management
PCC	Patient-centered Care
MOH	Ministry of Health

Part I:

Demographic information

1. Name of hospital (.....)

2. How old are you?

Please √ (tick) appropriate box

20-30

31-40

41-50

Over 50 years

3. What is your gender?

Please √ (tick) appropriate box

Male

Female

4. How many years of nursing experience have you had since qualifying?

Please √ (tick) appropriate box

2-5

6-10

11-20

21-30

31+

5. Which areas require improvement?

Please √ (tick) the appropriate box

Service

Operational

Clinical Other (please specify) _____

Part II: Nurses' Perceptions of Total Quality Management

Please (tick ✓) the appropriate box next to each statement on the scale, showing the extent to which you agree or disagree on the statement provided.

A. Nurses' perceptions of communication between and within institutions

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1- There are regular communications on policy and regulations between the MOH and my hospital	<input type="checkbox"/>				
2- There is regular knowledge exchange between my hospital, other hospitals and healthcare delivery institutions in the country	<input type="checkbox"/>				
3- There is an independent department for TQM (advisory board) in my hospital	<input type="checkbox"/>				
4- There is effective communication between the TQM department and other departments within my hospital	<input type="checkbox"/>				
5- There is communication on TQM between mine and other MOH departments	<input type="checkbox"/>				
6- There are regular and active communications through management channels (top ↔down) (management to nurses/other health professionals) at my hospital	<input type="checkbox"/>				
7- Personally, I try to build rapport with patients	<input type="checkbox"/>				

B. Effective implementation of patient-centred care

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8- I feel equipped to care for patients efficiently and effectively	<input type="checkbox"/>				
9- In our hospital, nursing care is provided according to patients' needs	<input type="checkbox"/>				
10- It takes a reasonable amount of time to react to patients' needs	<input type="checkbox"/>				
11- I provide services other than nursing, such as catering, education and social support	<input type="checkbox"/>				
12- My hospital considers religious, cultural and personal issues while providing care for patients	<input type="checkbox"/>				

C. Quality of care within your hospital

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13- The hospital operates government quality procedures	<input type="checkbox"/>				
14- The hospital applies quality control measures	<input type="checkbox"/>				
15- The hospital operates a quality control department	<input type="checkbox"/>				
16- Healthcare provision at my hospital is reasonably quick according to patients' conditions	<input type="checkbox"/>				
17- Ethical issues are considered while providing healthcare in terms of respect for patients' humanity	<input type="checkbox"/>				

18- The hospital has a qualified multidisciplinary team to deliver high-quality care to patients with different and complicated health conditions	<input type="checkbox"/>				
19- I am aware of individual needs and requirements while providing care for patients	<input type="checkbox"/>				

D. Nurses' perceptions of the implementation of and satisfaction with TQM

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20- Total Quality Management is applied and implemented in my hospital	<input type="checkbox"/>				
21- There are guidelines and sufficient information on TQM, and updates are available	<input type="checkbox"/>				
22- TQM implementation at my hospital follows and is consistent with the MOH's strategic vision and policies	<input type="checkbox"/>				
23- Hospital quality processes in TQM are updated according to research findings and best practice locally and abroad	<input type="checkbox"/>				
24- TQM is implemented equally on the national level in the KSA regardless of the healthcare sector	<input type="checkbox"/>				
25- I am satisfied with the job I do	<input type="checkbox"/>				
26- The hospital works to ensure nurses' job satisfaction	<input type="checkbox"/>				
27- I am satisfied with the TQM outcomes at my hospital	<input type="checkbox"/>				
28- I believe that TQM is at the appropriate standard	<input type="checkbox"/>				

that should be desired by patients					
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E. Nurses' perspectives on competency, development and training

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29- Training is required, to achieve higher quality	<input type="checkbox"/>				
30- Health educational resources are required to improve the quality of the care	<input type="checkbox"/>				
31- More training is necessary to enhance customer service skills	<input type="checkbox"/>				
32- More leadership training is required	<input type="checkbox"/>				
33- More management training is required	<input type="checkbox"/>				
34- Government investment in nursing training programmes is necessary and valuable	<input type="checkbox"/>				
35- Training on TQM is available for staff in my hospital	<input type="checkbox"/>				
36- The hospital supports nurse training in TQM through incentives	<input type="checkbox"/>				
37- Investment is needed for TQM training for other specific programmes	<input type="checkbox"/>				
38- Training coaches need to be part of TQM	<input type="checkbox"/>				
39- TQM and its trainees should be followed up through regular evaluations to update continuous training	<input type="checkbox"/>				

F. Related barriers to improving the quality of care

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
40- Shortage of nurses would be a reason affecting the quality of care in my department	<input type="checkbox"/>				
41- Language and communication may be barriers to the process of quality improvement	<input type="checkbox"/>				
42- Lack of staff knowledge may hinder quality improvement	<input type="checkbox"/>				
43- Lack of in-service training might be a barrier to quality improvement	<input type="checkbox"/>				
44- Lack of staff experience is a factor influencing TQM	<input type="checkbox"/>				
45- Lack of time for staff to provide training in TQM	<input type="checkbox"/>				
46- Staff are busy in administrative roles which limit their time working toward quality of care improvement	<input type="checkbox"/>				
47- We face difficulty in educating some patients in relation to quality improvement	<input type="checkbox"/>				
48- There is a lack of motivation from administration for better healthcare delivery and improving the quality of care	<input type="checkbox"/>				
49- The way the organisation is administered is a barrier to quality improvement	<input type="checkbox"/>				

55- Are you interested in training?

Please √ (tick) appropriate box

- Yes No, if no, please ignore the next question.

56- What should the frequency of training be?

Please √ (tick) the appropriate box

Weekly

Monthly

Yearly

57- How do you prefer to be trained?

Please √ (tick) the appropriate box

Online

Face-to-face

Group learning

58- How often should a nurse's wages be reviewed?

Please √ (tick) the appropriate box

Monthly

Every 6 months

Annually

Thank you again for taking time to answer this questionnaire

Appendix 9: Patients' Questionnaire

Research study: Patients' Questionnaire

Questionnaire Instructions:

تعليمات وضوابط الاستبيان

- The questionnaire should take approx. 20 minutes to complete
الوقت المتوقع لإكمال الاستبيان 20 دقيقة تقريبا
- Please try NOT to leave any question without an answer
الرجاء إجابة جميع الأسئلة وعدم ترك خانة فارغه
- All information you provide will only be used for research purposes
كل المعلومات المقدمة من طرفكم سوف تستخدم فقط لهدف البحث
- Any information you provide will be CONFIDENTIAL and ANONYMOUS
كل المعلومات المقدمة من طرفكم سوف تكون سرية ومجهولة
- If you any further queries, please contact the researcher by email at
i.e.m.alqasimi@edu.salford.ac.uk

للاستفسار بموضوع يتعلق بالاستبيان الرجاء التواصل مع الباحث عن طريق الايميل أع

- Please note the abbreviations below

الرجاء قراءة الاختصارات أدناه

Abbreviation الاختصار	Its meaning المعنى
TQM	Total Quality Management إدارة الجودة الشاملة
PCC	Patient-centered مركز عناية المريض Care
MOH	Ministry of Health وزارة الصحة

Part I:

الجزء الأول

Demographic information

المعلومات الشخصية

Please ✓ (tick) the appropriate box

الرجاء وضع علامة ✓ أمام المكان المناسب

1. **Name of hospital:** _____ اتركها فارغه _____

2. **How old are you?**

كم عمرك؟

Please ✓ (tick) the appropriate box

الرجاء وضع علامة ✓ أمام المكان المناسب

18-20 من 18 الى 20

21-30 من 21 الى 30

31-40 من 31 الى 40

41-50 من 41 الى 50

>50 اكبر من 50

3. **What is your gender:** ما هو جنسك؟

Please ✓ (tick) the appropriate box الرجاء وضع علامة ✓ أمام المكان المناسب

Male ذكر

Female انثى

4. **Hospital patient-centred care**

Please ✓ (tick) the appropriate box

الرجاء وضع علامة ✓ أمام المكان المناسب

5. **Have you been admitted to hospital in the past 12 months?**

هل سبق وان دخلت المستشفى اخر 12 شهر السابقة؟

Yes نعم No لا ... *If NO, please ignore the next question.* في حالة الإجابة لا الرجاء تجاهل السؤال القادم

6. **How long was your stay in hospital the last time?**

كم استغرقت مدة دخولك في اخر زيارة للمستشفى؟

5 hours من ساعه الى 5 ساعات

6-10 hours من 6 ساعات الى 10 ساعات

1-24 hours من 11 ساعه الى 24 ساعه

One day يوم كامل

الجزء II Part II

Patients' الثاني

perceptions of Total Quality Management

إنطباع وتصور المرضى من إدارة الجودة الشاملة

Please ✓ (tick) the appropriate box next to each statement. On the scale, show the extent to which you agree or disagree with the statement provided.

الرجاء وضع علامة ✓ أمام المكان المناسب أمام كل خانة توافق أو لا توافق عليها

A. Patients' perceptions of organisational communications effectiveness

أ- تصور المريض عن فعالية التواصل داخل المنظمة

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
1- Nurses have communicate well with patients through providing care المرمضات يملكون مساحة ضيقه للتواصل مع المرضى من أجل تقديم الرعاية الصحية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2- Staff have frequent communication with patients during their shift (more than two times) يتمتعون الموظفون بالاتصالات المتكرره مع المرضى خلال عملهم بأكثر من مرتين	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3- The hospital contacts me after discharge regularly, to ask me about any health issues يتواصل المستشفى معي بعد خروجي للإطمئنان على حالي الصحية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4- Staff in hospital usually contact me to remind me about appointments الموظفين في المستشفى يتواصلون معي لتذكيري بالمواعيد	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5- Hospital staff provide internet access for patients to follow up their conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

المستشفى يوفر الدخول للانترنت للمرضى لمراجعة حالتهم					
6- Staff in the hospital usually send me a text message if anything necessary is needed الموظفين يرسلون رسالة نصية في حالة الاحتياج الضروري	<input type="checkbox"/>				
7- I am able to order my medications online for delivery to my home انا قادر على طلب ادويتي من خلال الانترنت لتوصيلها للمنزل	<input type="checkbox"/>				
8- Service is computerised, so no documents get lost الخدمة محفوظة آلياً,,اذن ولن تكون هناك مستندات معرضة للضياع	<input type="checkbox"/>				

B. Patients' satisfaction with the implementation of patient-centred care

ب. رضى المرضى في تطبيق عناية المريض

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
9- Nurses recognise patients' needs and deal with them in a professional way الممرضات يتفهمون احتياجات المرضى ويتعاملون معها بكل مهنية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10- Patients do not need to wait a long time for service or healthcare لا يحتاج المريض للإنتظار لفترة طويلة للأستفاد من الخدمة الصحية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11- When asking nurses about things related to patients' health, nurses usually refer the question to a doctor عند سؤال الممرضات عن الأمور الصحية, عادة يوجهون لسؤال للأطباء	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12- Nurses are able to answer any question patients ask, without the need to refer to any health professional الممرضات يتمتعون بمعلومات صحية كافية , ولا يحتاجون لإعادة توجيهها إلى الأطباء	<input type="checkbox"/>				
13- When providing care, nurses recognise and respect patients' religious, cultural and personal needs عند تقديم الخدمة الصحية , الممرضات يتفهمون ويحترمون العامل الديني والثقافي والشخصي	<input type="checkbox"/>				
14- Service is quick and available all the time in the hospital الخدمات الصحية سريعة ومتوفرة في كل الأوقات في هذا المستشفى	<input type="checkbox"/>				
15- Nurses pay attention to every patient and to every point patients discuss الممرضات تعطي الأهتمام الكافي لكل مشاكل ومناقشات المرضى	<input type="checkbox"/>				
16- Nurses deal with patients' issues in a confidential way الممرضات يتعاملون بطريقة سرية مع مشاكل المرضى	<input type="checkbox"/>				

C. Patient' perceptions of total quality management as a way of improving practice

ت. تصور المرضى في إدارة الجودة الشاملة كطريق لتطوير المهنة الصحية

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
17- Total quality management is necessary to set guidelines for higher quality of patient care إدارة الجودة الشاملة عنصر ضروري للتوجيه في رفع كفاءة جودة رعاية المريض	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18- Total quality management can increase patients' satisfactory care إدارة الجودة الشاملة تساهم في رفع رضا المرضى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19- Total quality management can ensure more comprehensive nursing care, thus meeting individual patients' needs إدارة الجودة الشاملة تضمن رعاية تمريضية شاملة تحقق إحتياجات المرضى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20- Total quality management can save time and money for both the hospital and the patient by decreasing readmissions due to poor quality care تستطيع إدارة الجودة الشاملة توفير الوقت والمال للمستشفى والمريض معاً من خلال تقليص إعادة الإدخال نظراً لضعف جودة الرعاية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21- Total quality management can work with hospital management إدارة الجودة الشاملة تستطيع العمل مع إدارة المستشفى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22- Total quality management is vital to updating policy on patient care إدارة الجودة الشاملة نظام حيوي لتحديث السياسات الخاصة برعاية المرضى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q 29 How often do you believe communication is carried out at the hospital?

متى تعتقد أن يكون التواصل داخل المستشفى؟

Please ✓ (tick) the appropriate box الرجاء وضع علامة ✓ أمام المكان المناسب

Daily يومياً

Weekly اسبوعياً

Monthly شهرياً

Q30 Which areas in the hospital require improvement (you can pick multiple options)?

ما هي الأماكن التي تحتاج في نظرك الى تحسين؟ (يمكن إختيار اكثر من إجابة)

Please ✓ (tick) the appropriate box الرجاء وضع علامة ✓ أمام المكان المناسب

Service الخدمات

Operational التشغيل

Clinical العيادات

Other (please specify) أخرى _____

D. Existing Availability of TQM in hospitals

ث. وجود إدارة الجودة الشاملة في المستشفى؟

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
36- The hospital displays procedures and updates on quality of care provided to patients المستشفى يعرض إجراءات وتحديث الجودة الشاملة للمرضى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37- The hospital implements TQM measures المستشفى يطبق ممارسات وقياس الجودة الشاملة	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

38- The hospital has an effective TQM department المستشفى يملك إدارة جودة شاملة فعالة	<input type="checkbox"/>				
39- Staff understand what is meant by a good TQM system الموظفين على دراية جيدة بنظام إدارة الجودة الشاملة	<input type="checkbox"/>				
40- More nurse training should be in TQM المقترض يكون هناك تدريب أكثر لكادر التمريض في إدارة الجودة الشاملة	<input type="checkbox"/>				

Q36 Would you prefer regular training for nurses on total quality management?

هل تفضل تدريب منتظم للممرضات في إدارة الجودة الشاملة؟

Yes نعم No لا

Q37 Would you prefer incentives (e.g. money) for nurses to provide higher quality care?

هل تفضل حوافز أكثر مثل المال مثلاً للكادر التمريض الذين يقدمون رعاية صحية عالية؟

Yes نعم No لا

Q38 How often should training be offered to hospital staff?

متى تعتقد المدة المناسبة لتدريب الموظفين؟

Please ✓ (tick) the appropriate box أمام المكان المناسب

Daily يومياً

Weekly اسبوعياً

Monthly شهرياً

Annually سنوي

Q39 How often should a nurse's pay be reviewed?

في اعتقادك متى يفترض إعادة تقييم رواتب كادر التمريض؟

Please √ (tick) the appropriate box الرجاء وضع علامة √ أمام المكان المناسب

Monthly شهري

Every 6 months كل ستة أشهر

Annually سنوي

E. Patients' perceptions of nurses' training on TQM

ج. تصور المرضى في تدريب كادر التمريض في إدارة الجودة الشاملة

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
41- Training is important in helping nurses deal with medications and their actions التدريب عنصر مهم لتمكين كادر التمريض من التعامل مع الأدوية ومع أعمالهم	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42- Training is important in helping nurses learn about health problems and how to deal with them التدريب عنصر مهم لكادر التمريض لمعرفة المشكل وكيفية التعامل معها	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43- Training on TQM can improve nurses' skills in communicating with patients and their families التدريب في إدارة الجودة الشاملة عنصر مهم لكادر التمريض لتطوير مهارات التواصل مع المرضى وعائلاتهم	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44- Training on TQM can show nursing managers their scope of practice التدريب في إدارة الجودة الشاملة يسهم في التركيز على التطبيق	<input type="checkbox"/>				
45- Staff require more quality training الموظفين يحتاجون تدريب في الجودة أكثر	<input type="checkbox"/>				
46- Government should support staff training, in order to achieve the optimum level of management skills المفترض تدعم وزارة الصحة تدريب الموظفين لتحقيق أعلى المهارات الادارية	<input type="checkbox"/>				
47- Nurse's pay should be increased with training ينبغي زيادة أجور كادر التمريض المدرب	<input type="checkbox"/>				

Q47 Should patients become involved in implementing nurse training procedures?

هل ينبغي للمريض ان يكون مشمولاً في إجراءات تدريب كادر التمريض

Please ✓ (tick) the appropriate box الرجاء وضع علامة ✓ أمام المكان المناسب

Yes نعم No لا If no, Why? في حالة الجواب لا لماذا؟

Please fill in the box if your answer was "NO" in the previous question

في حالة الجواب (لا) الرجاء كتابة السبب

Q48 How should responses from patients be collected in relation to healthcare service delivery?

كيف ينبغي جمع الردود من المرضى فيما يتعلق بتقييم الخدمة الصحية؟

Please ✓ (tick) the appropriate box الرجاء وضع علامة ✓ أمام المكان المناسب

- Electronic feedback رد إلكتروني
- Written feedback رد كتابي
- Telephone feedback رد هاتفي
- Other (Mention) أخرى _____

F. Related barriers to applying quality of care principles

خ. معوقات تطبيق معايير جودة الرعاية الصحية

	Strongly Disagree أوافق بشدة	Disagree غير موافق	Neutral محايد	Agree موافق	Strongly Agree لا أوافق بشدة
48- There are no sufficient number of staff on this ward to provide care properly ليس هناك عدد كافي من الموظفين لتقديم الخدمة المثالية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49- High numbers of patients in wards require higher numbers of nurses. عدد كبير من المرضى في الجناح الطبي يحتاجون عدد كبير من الكادر الطبي	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50- Staff can seem unprofessional at times, as they deal with things individually, which means that they are not trained for quality management الكادر الطبي على ما يبدو لا يستخدم الطريقة المهنية, ويتدخل فردياً في الأشياء وهذا يدل على عدم التدريب في مجال الجودة	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51- We face difficulty when interacting with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

hospital staff نواجه مشاكل في التعامل مع موظفين المستشفى					
52- Staff in this hospital do not talk in a friendly manner with patients الموظفين لا يتعامل بصدافة مع المرضى	<input type="checkbox"/>				
53- Nurses sometimes use language which is not understandable to us, which means we are not aware of what to do الكادر التمريضي يتكلمون لغة غير مفهومه مما يؤدي إلى عدم فهمها	<input type="checkbox"/>				
54- Nurses in this hospital lack the knowledge required to answer our questions	<input type="checkbox"/>				
55- We cannot always find nurses, as they take part in other activities apart from nursing, such as management لا نرى الكادر التمريضي كثيراً حيث انهم يفضلون الأعمال الإدارية	<input type="checkbox"/>				
56- I cannot see motivation for nurses in this hospital to provide quality service to patients لا أرى تشجيع للكادر التمريضي في هذا المستشفى لتقديم خدمة صحية ممتازة للمرضى	<input type="checkbox"/>				
57- Cultural issues such as gender, religion and education may prohibit nurses from talking to patients about their health conditions المشكل الثقافية مثل الجنس، الديانة، والتعليم ممكن تمنع الكادر التمريضي من الحديث مع المرضى	<input type="checkbox"/>				

Thank you again for taking time to answer this questionnaire

Appendix 10: Head Nurse Sample Interview

MOH N1

Nurses Interview – Prompt Questions

Title: Can TQM improve the quality of care in Saudi Arabian hospitals – the patient and service provider perspective

Mansour-y

Thank you very much Mansour for your coming for this interview. I would like to appreciate your time to attend this interview and want to assure you that everything you say in the interview will be definitely confidential

I: Rose you have signed the consent form, haven't you?

M: Yes

The aim of my study is to identify the quality measurement requirements needed to implement high quality care in Saudi Arabian hospitals

I: Rose, what nursing area are you working in at the moment?

M: Head of nurse

I: Do you like this area?

R: Yes,

I: How long have you been working in this area?

M: 30 Year

Q10: What is your perception of TQM?

Q11: Do you think TQM exist in this hospital?

Q12: Has TQM been integrated successfully within this hospital?

Q13: How is TQM implemented?

Q21: Considering TQM management in your hospital, do management implement a proper TQM system, so that healthcare is offered at high levels of quality and efficiency?

Q14: Is there a quality department within this hospital?

Q24: To implement a perfect TQM policy for improving the quality of healthcare, is your hospital ready for that in terms of human capital?

Q15: What essential factors can lead to the provision of high-quality healthcare? How can we identify these factors and achieve high-quality care?

Q17: In what capacity do nurses contribute to promoting the level of the healthcare quality in teaching hospitals?

Q18: How do nurses contribute to promoting the level of the healthcare quality in teaching hospitals?

Q19: In what way do nurses participate in decision-making regarding any improvements to the quality of healthcare?

Q26: Nurses play a central role in providing good quality healthcare, but do they take different approaches to their practice? Are there any standard procedures or guidelines in your hospital prepared especially to promote similar practices of a high quality?

Q25: If you were a physician, what would you do differently in order to improve the quality of healthcare in the hospital?

Q1: What is your perception of patient-oriented care?

Q3: Within patient-oriented care and delivery, are there people-related issues that influence patient care?

Q7: Can you describe the culture that prevails in this hospital in relation to delivering patient-oriented care?

Q23: Do you think that it is relevant that Saudi patients' cultural values have a significant influence on healthcare quality in your hospital?

Q5: Can you discuss what you think of government visions about patient-oriented care within the Ministry of Health?

Q4: What resources do you currently deploy to attain patient-oriented care?

Q8: From your interaction with your colleagues, are they satisfied with their role of delivering patient-oriented care?

Q9: Is job satisfaction important to delivering patient-oriented care?

Q2: What factors do you think affect the delivery of healthcare in hospitals?

Q6: Do hospitals lack any resources that can hinder the delivery of care?

Q20: How many patients are treated during a routine day? Are these patients satisfied by the care they receive and other services offered in the hospital?

Q22: What would you change if you had the opportunity to change something regarding the quality of nursing in your hospital?

Thank you very much for your time

Appendix 11: TQM Manager Sample Interview

KFMC M2

Rose_M

Thank you very much Rose for your coming for this interview. I would like to appreciate your time to attend this interview and want to assure you that everything you say in the interview will be definitely confidential

I: Rose you have signed the consent form, haven't you?

R: Yes

The aim of my study is to identify the quality measurement requirements needed to implement high quality care in Saudi Arabian hospitals

I: Rose, what nursing area are you working in at the moment?

R: Emergency Room

I: Do you like this area?

R: Yes,

I: How long have you been working in this area?

R: 12 years.

Q10: What is your perception of TQM?

Q11: Do you think TQM exist in this hospital?

Q12: Has TQM been integrated successfully within this hospital?

Q13: How is TQM implemented?

Q14: Is there a quality department within this hospital?

Q15: Do hospital administrators consistently participate in activities to improve the quality of care and services?

Q16: What do you consider to be the most significant factors in quality care?

Q17: Do you think that TQM benefits hospitals? Why?

Q21: In your opinion, which factors could promote the implementation of TQM in Saudi hospitals?

Q18: In what way does the implementation of TQM provide quality care in Saudi hospitals?

Q2: What factors do you think affect the delivery of healthcare in hospitals?

Q6: Do hospitals lack any resources that may hinder the delivery of care?

Q19: What are the reasons behind the fact that some patients choose private hospitals instead of government healthcare?

Q22: What measures that can be taken to make Saudi teaching hospitals the hospital of choice for the patient?

Q25: Do you believe that the implementation of TQM can improve quality of care and decrease costs?

Q1: What is your perception of patient-oriented care?

Q3: Within patient-oriented care and delivery, are there people-related issues that influence patients?

Q4: What resources do you currently deploy to attain patient-oriented care?

Q5: Can you discuss what you think of government visions about patient-oriented care within the Ministry of Health?

Q8: From your interaction with your colleagues, are they satisfied with their role of delivering patient-oriented care?

Q9: Is job satisfaction important to delivering patient-oriented care?

Q20: To what extent can patient care be improved in your hospital?

Q7: Can you describe the culture that prevails in this hospital in relation to delivering patient-oriented care?

Q23: In what capacity do Saudi cultural norms affect the implementation of TQM in Saudi hospitals?

Q24: If you were given the chance to change something within the management of the Saudi hospitals, what would it be?

Thank you very much for your time

Appendix 12: Participant Invitation and Information Sheet

Dear Participant,

I am currently conducting a study within my third year at Salford University, and I hope you will be able to complete the survey

The research title is: **Can TQM improve the quality of care in Saudi Arabia hospitals – the patient and service provider perspective**

The basis for the study identifies TQM in order to facilitate and improve hospital nurse services. The research focuses on both nurses and patients. There are two research groups within this research, who are: Nurses and Current Patients.

Background:

For the advancement of this study, the completion of a short questionnaire is vital, as it investigates the quality measurement requirements needed to implement high quality care in Saudi hospitals.

Participation: If you are able to participate in this much-required research and complete the questionnaire to the best of your capabilities, it will be immensely appreciated. The questionnaire will take approximately 15 to 20 minutes to answer, and the completion and return of the questionnaire with the consent form below will constitute your acceptance of participation. This is voluntary, which means that you are free to withdraw without reason at any moment, and it will be your personal decision to request any acquired data to be deleted when desired. Furthermore, responses will be completely anonymous, and confidentiality is 100% guaranteed.

The results will be published as part of the PhD thesis. Hence, your participation will provide a vital contribution to the study.

Your individual participation is greatly appreciated and improves the success of the study and future professional developments. If you have any questions or concerns, please contact me at

Thank you

Kind regards

Ibrahim Alqasimi

Appendix 13: The TQMQOC Framework

Theoretical contributions of the research

The concept of TQM and the health sector is a burgeoning area of interest for academic and practitioners. Due to globalisation, which has had a definitive effect on active migration patterns across the world, there has been great diversity in healthcare settings. This has increased the complexity and the drive to understand better how best to serve customers or patients in such contexts. Saudi Arabia has a growing expatriate population employed throughout the kingdom as a whole, and the healthcare sector is no exception. This research set out to acquire an understanding of the dynamics of TQM and how the evolving environment may affect quality of care and patient satisfaction. Of particular interest in this study was gaining a deeper understanding of the issues and challenges facing the sector and understanding of the ways in which TQM can be effectively implemented to the benefit of sustainable TQM practice, quality of care and patient satisfaction.

The key theoretical contribution of this study is the identification of five critical successful factors (CSFs), two of which may be entirely unique in terms of TQM and health sector modelling (Figure 26 for CSF 1 and CSF 2). The other CSFs, namely CSF 3, CSF4 and CSF 5, while not unique TQM principles, must be fairly well developed in the Saudi context to ensure sustainability of TQM practice and success in terms of positive outcomes such as quality of care and patient satisfaction. It is also noted that CSF 3 is an advanced level relative to education and training, espoused in the extant literature, while CSF 4 relates not only to leadership, but also to the institutionalisation of transformational leadership. Furthermore, there is often the generally universal appeal of simply adopting best practice and modelling from the Western context, without due consideration for context or environmental concerns. However, based on the review of the extant literature via primary data collection and analysis, the researcher proposed the total quality management quality of care (TQMQOC) framework, as shown in Figure 26, which clearly highlights the CSFs necessary in the Saudi healthcare context for effective TQM implementation and delivery of care. Another key theoretical contribution is the proposed inter-institutional communications strategies put forth by this researcher to deal with the severe communication shortcomings identified via interview data and survey findings (Figure 26 P 202).

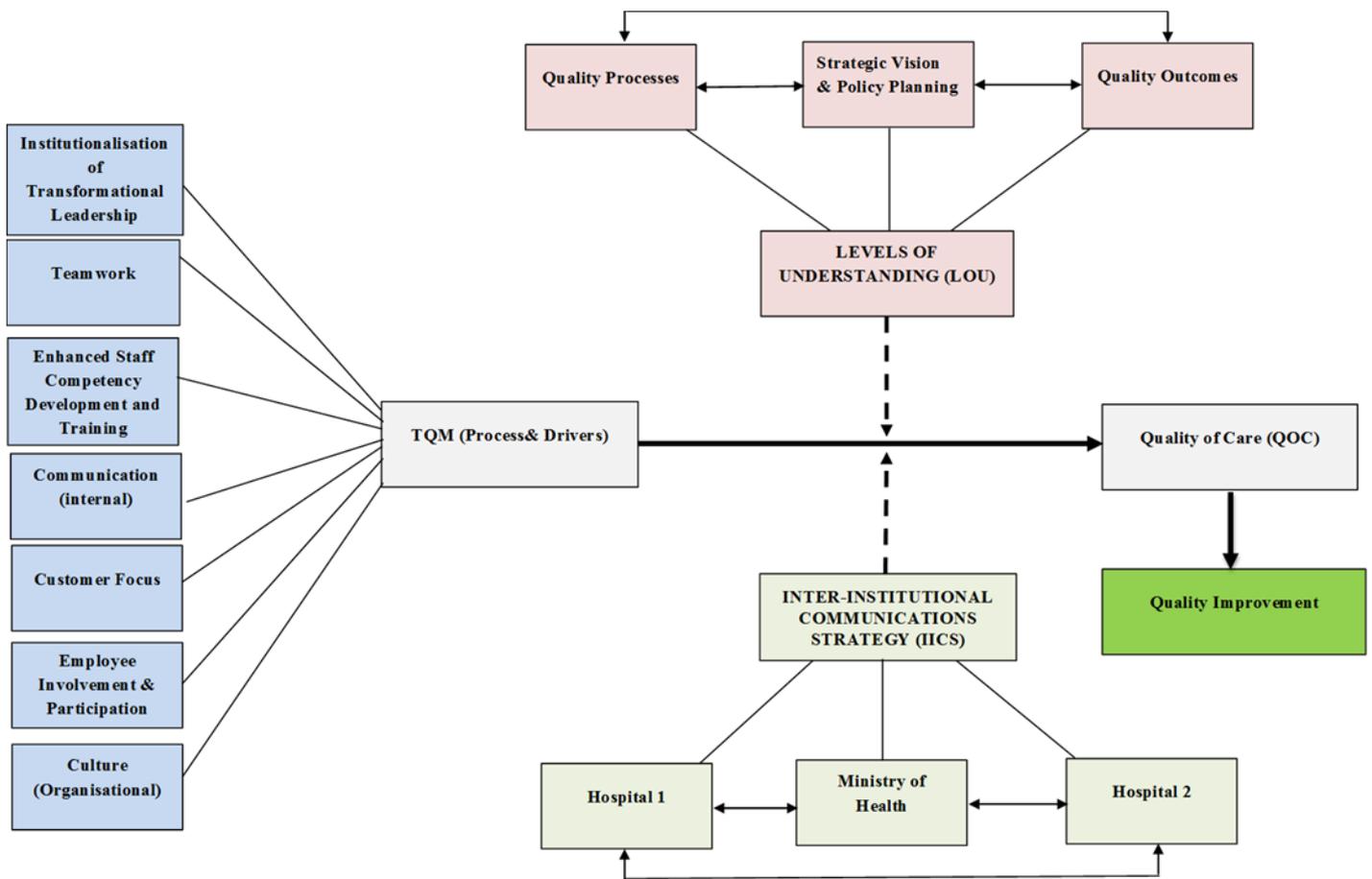


Figure 26. Illustration of critical success factors in the TQM/QOC framework created by this study

The TQM/QOC framework

The current study perceived that by drawing from the literature specific to achieving TQM, combined with findings from the primary research on quality of care practice, it is possible to establish the best approach to attaining quality of care. The proposed TQM/QOC framework has three main aspects that collaborate successfully to deliver quality of care. One aspect, TQM process and drivers, strongly draws its impact on quality of care from best TQM principles of practices or critical success factors for implementation. As detailed in the literature review, the successful application of a CSF, such as leadership, teamwork, training and education, organisation culture, employee participation and effective communication, results in improved quality in an organisation. Thus, when applied to a hospital, TQM processes and drivers should have a significant impact on quality of care, albeit they will depend on other factors. The second aspect is the overall perception or level understanding (LOU) of quality by top leadership (MOH) and down to operational level

(nurses et al. in hospitals). There must be homogeneity in terms of vision and mission, quality processes should be understood and supported by policy and quality outcomes should be well established, documented and measurable for evaluation and continued improvement as part of the LOU. The LOU is critical for ensuring that TQM process drivers are in place and are being realised through facilitation and regulation (MOH). At this level, the LOU and IIC work simultaneously in transforming TQM processes and drivers to realise better quality of care (QOC). However, this quality will require continuous improvement so that hospitals can increasingly learn from past failures and deliver a high-class service to patients.

Practical/empirical contributions of the research

TQM practice provides many organisational advantages to firms. The practical implications of this study specifically surround the identified TQM CSFs in Saudi public hospitals. These CSFs are essential factors in helping Saudi public hospitals enhance TQM practice and infuse the necessary culture to improve productivity efficiency, quality of care and patient satisfaction. Again, these were based on data gathered from both providers and patients' perspectives, which to some extent facilitate verification. The discourse surrounding these CSFs provides management or practitioners with valuable information on critical issues and challenges as well as solutions to augmenting TQM practice throughout hospitals.

The work also highlights provider links to other research that validates the findings of this study at various points. For the most part, this research provides some very useful findings that can inform TQM practice in the Saudi Arabian context and could lead to improved TQM implementation, not only in the Saudi healthcare sector, but also in other sectors where it can be employed as a meaningful competitive advantage to distinguish firms from competitors. It is also possible that these findings in the Saudi context could be applied to hospitals and healthcare sector in general in the Middle East region and other GCC countries.

Research through the TQM/QOC framework provides a quick reference guide to TQM professionals in the healthcare sector on the major areas requiring the most focus, in order to enhance productivity and efficiency and ultimately improve quality outcomes and patient satisfaction. According to Ronnback and Witell (2008), there has been increased emphasis on TQM practice, and thus, through this empirical research work, the researcher has reiterated and emphasised its importance as a critical management practice to be

adopted by firms as a competitive advantage. In addition, the research adds to quality management knowledge and practice in a developing country, which to date has received limited attention (Al-Khalifa and Aspinwall, 2000), and aided in filling the information gap on TQM in Saudi Arabia.

It has also been documented that the cost of healthcare in the Kingdom of Saudi Arabia is steadily on the rise (Safi, 2016), and as such, this thesis offers solutions for improving efficiency and productivity and ensuring cost savings in the sector. The research also points to the major issue of human capital and the need for an even stronger emphasis on the education and training of personnel at the institutional and personal level. This is especially pertinent, as it has been reported that there is high turnover in the Saudi healthcare workforce (Almutairi et al., 2013; Safi, 2016).

The timing of this thesis work is also consistent with the Saudi government's focus on expanding its healthcare network and effecting its mandate to the MOH to make drastic improvements in healthcare delivery throughout all state-run hospitals (Safi 2016). This research work has gone some way to identifying key issues and challenges and made suggestions for areas of improvement through recommendations. In addition, the findings of this study should lead to improved productive use, as it is noted that the ratio between quality outcomes and significant capital outlay by the MOH – and by extension the Saudi government – is poor (Ishfaq et al., 2016).

The study's strengths

The current study's methodology is a vital strength, as it combines different methods that function to achieve an overall aim. Accordingly, the mixed quantitative and qualitative method enabled explanatory, exploratory and/or complementary analysis, even though it was not undertaken in regards to a specific case study. Nonetheless, the methodology from a case study would have also been able to compare theoretical concepts with the varied experiences of nurses, as well as their individual attitudes, together with cultural and educational influences throughout the Saudi health sector. Moreover, most research studies that were reviewed utilised only one of the qualitative or quantitative methods and refrained from a combination thereof in their data analysis (Gott et al., 2004, Magnan and Reynolds, 2006, Saunamaki et al., 2010).

Yet, the attitudes of nurses, which were shown through the quantitative methods, did not entirely reflect their overall practice, as it was only through triangulating data that this was

achieved. Triangulation presented the quantitative data in connection with the qualitative answers from the interviews and helped establish reliability and validity. Consequently, studies that rely purely on quantitative measures in order to evaluate the conclusive attitude of nurses need to be understood as limited. Indeed, information gathered in the present study in relation to implementing TQM in Saudi government hospitals was improved by the more in-depth qualitative (head nurses and heads of TQM departments) aspect of the interviews.

In addition, the translation of the new questionnaire, as well as the interview schedule to an equivalent level, increased the research's validity, as it diminished bias on the basis of language between participating nurses, which then allowed the responses to reflect the truth, whether in Arabic or in English. Therefore, more reliable data were accrued due to a reduction in misunderstanding or mistranslation.

Limitations of the study

Communications barrier

Certain limitations existed during the research process, as well as challenges, which were commonly found to relate to the communication factor. In particular, English is not my native language, which meant that it was challenging to converse fully with the interviewees, who spoke in many different native tongues. It was felt during many of the interviews with the nurses that some of the expatriate contingent could not correctly express what they wanted to say, or answer in the way that they had hoped. Moreover, certain individuals were continuously searching for the right expression to state their thoughts, and even though further clarity was provided, at times the information in its entirety could have been lost. What is more, the variety of accents that were spoken in the English language during the interviews created a number of challenges for the hired translation agents; consequently, additional time was required to transcribe the interviews.

Lack of research support in the Saudi context

Despite the researcher's belief that the mixed method approach helped in meaningfully addressing the research objectives, limited research on TQM in the Saudi context, as well as specifically on healthcare, provided some challenges. The researcher found it difficult to compare the findings unearthed in this study with previous TQM work in the sector or other sectors. The topic of TQM management, to date at least, has not been widely researched in the Saudi context. No studies were found with similar or related aims to

enhance comparison and increase rigour in terms of critical analysis, and even when utilising a sub-theme approach, for example the individual constructs that collectively reflect the TQM construct, there was limited empirical research in the Saudi case. The researcher thus had to rely on international research for comparison and linkages. For example, there was little or no research found on the management commitment and leadership, or training and education sub-themes of TQM and its relationship to quality of care or patient satisfaction. Shoqirat and Cameronb (2012) reported similar problems in their research with respect to nurses' role in health promotion and practice.

Researcher's future plans

Advanced quantitative testing of the proposed framework

The TQMQOC framework developed herein was devised and analysed as a future requirement. The created framework is still theoretical in nature, and although it was designed through the use of evidence-based findings and an extensive literature review, it now requires further research to test the proposed constructs and the precise nature of the potential relationships elaborated in this study and in the TQMQOC itself.

For now, it serves as a useful tool to highlight key areas requiring further enhancement and focusing on government managerial and operational levels (patient interface). Advanced statistics such as structural equation modelling will be essential in future work looking to test and validate the findings and conclusions drawn and based on the exploratory work conducted in this study.

Post-doctoral work

I have planned one research project for post-doctoral development, which focuses on comparing patient care between the healthcare system in Saudi Arabia and the NHS in the United Kingdom. I am extremely interested in testing the model that was proposed and the questionnaires in this thesis for its applicability in a Western, developed country context. I believe that this cross-national work will make a significant contribution to the extant literature on TQM in the future.

Appendix 14: The Reflection on the Research Process

Personal reflection

This personal reflection has been constructed to explain the way in which learning journey has taken place. The following model displays some of the key challenges faced on the PhD journey.

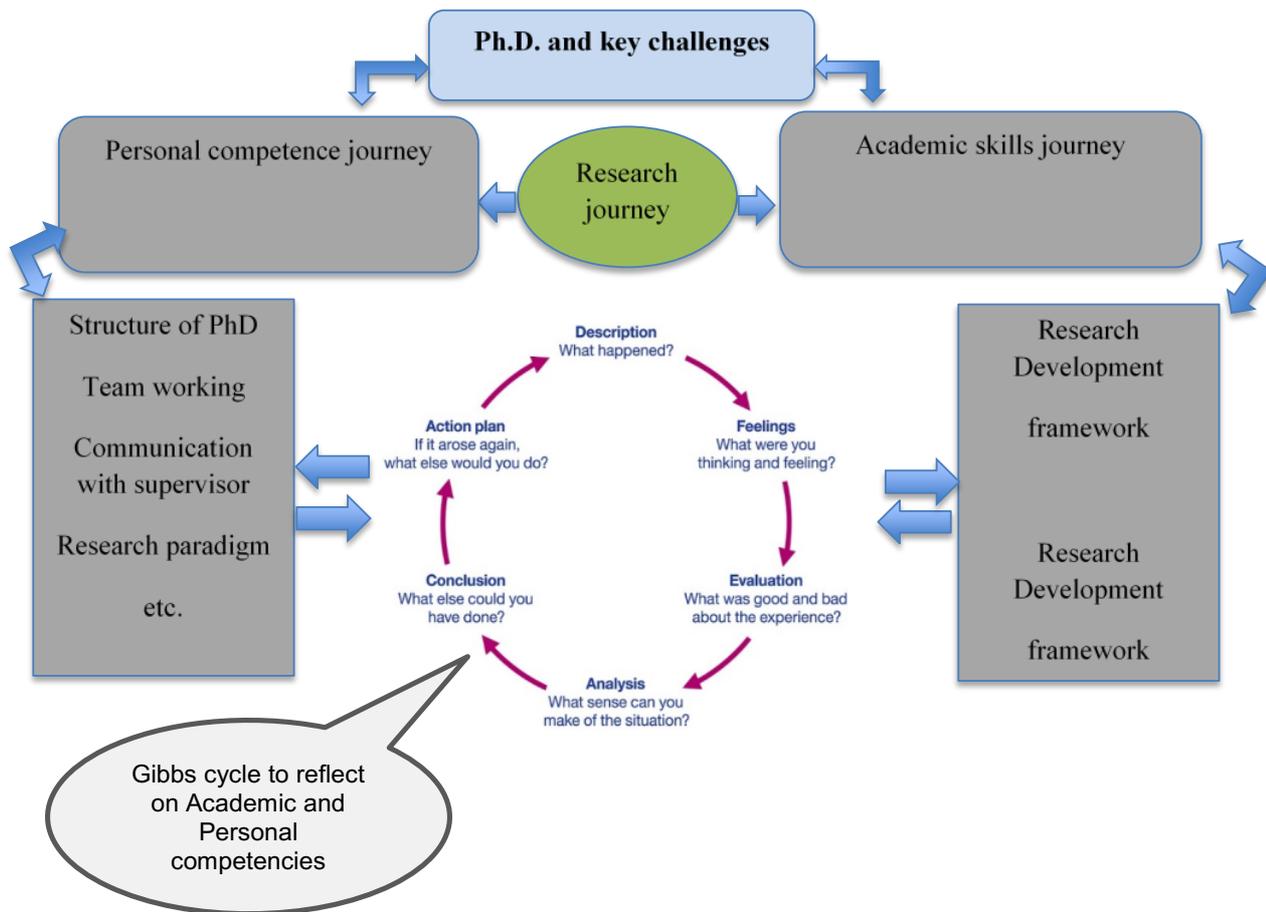


Figure 27. Personal reflection in a graphical illustration adapted from Gibbs (1988)

This personal reflection examines the key learning points that enhanced the research journey for the researcher throughout his PhD. From an academic viewpoint the personal journey has been both fulfilling and rewarding. Coming from an operational background, the key competencies learnt on reflection have been planning, the cognitive process, self-bias identification and understanding of research philosophy. Gibbs' reflective statement below defines and highlights my own personal considerations on reflection.

“It is not sufficient simply to have an experience in order to learn. Without reflecting upon this experience it may quickly be forgotten,

or its learning potential lost. It is from the feelings and thoughts emerging from this reflection that generalisations or concepts can be generated. And it is generalisations that allow new situations to be tackled effectively.'
(Gibbs 1988)

From Figure 26, above there are a number of key aspects that need to be reflected on, to illustrate this journey accurately. At the top of the diagram, there are two main considerations, the first of which is personal competence and the second the academic skills journey.

Personal competence

One of the major challenges for me as an international student, studying in a country in which the main language of communication was not my native language, was a significant issue. This commenced with my Master's studies in the United Kingdom. At that juncture it was a major challenge; however, as I completed my Master's and transitioned to PhD level, the challenge diminished somewhat. As my command of the English language improved throughout my Master's studies, my understanding of the research process in a second language also increased, and so by the time of enrollment in PhD programme, I was more confident personally of my ability to embark successfully on and complete a PhD.

Another major challenge related directly to family commitments, specifically the needs of my wife and children, which placed significant demands on my personal time during the ongoing adaptation to a new country environment. More often than not this infringed on my study time and the level of dedication necessary to navigate through the PhD and the rigorous demands it places on one's time – a constant tug-of-war between family and study. This aspect continues to be a challenge today, as human needs evolve in an ever-changing environment.

On the other hand, there were positive experiences of note that improved me as an individual. At monthly meetings with my PhD supervisor, Professor Tony Warne, I received valuable guidance on the development of my thesis, its structure and content knowledge during the research process. In addition, the offering of useful course training, which covered every key aspect of the research process, from idea generation to thesis submission, was invaluable and timely for me as a researcher. The opportunities to present our work as doctoral researchers to peers and doctoral committees were instructive and invaluable experiences for my classmates and me. Also, the diversity in the faculty is noteworthy, and it resulted in fruitful sessions that broadened my perspectives as a student

and gave me the opportunity to interact and engage with qualified and trained academics in my area of specialisation.

The research process itself was extremely beneficial, because as an administrator employed in the health sector, my focus or exposure to research had been limited. However, the PhD journey provided me with a new and enhanced skillset in the practice of research, research development to execution and report submission, to a point where I can now consider myself both a researcher and a practitioner with extensive knowledge on the health sector in the Saudi context. These new skills will no doubt aid me in being more rigorous and informed in my decision-making, particularly in senior positions later on in my career. The exposure gained through interacting with various stakeholders in the industry was irreplaceable. Through semi-structured interviews and the qualitative approach employed, my research participants provided rich insights and understanding that will serve me well as my career develops and I assume roles that can have great impact and influence on serving my country and its people. This exploration of TQM and quality of care from the governmental (MOH) through the managerial and operational levels helped the researcher identify a number of issues and challenges in healthcare delivery in the Saudi context. This was informative, since optimal utilisation of the country's resources and the good health and well-being of its citizenry is an absolute necessity, particularly in a rapidly growing society such as Saudi Arabia.

Academic skills

This reflective journey began with the researcher development framework (RDF) shown below and is broken down into a number of domains which are linked to my personal journey, intimated in part above. However, my development from an academic perspective has been noteworthy and is illustrated utilising the RDF. The domains segmented below emphasise the areas of development: Domain A: Knowledge and intellectual abilities, Domain B: Personal effectiveness, Domain C: Research governance and organisation and Domain D: Engagement, influence and impact. Below, in Table 29

I highlight some of the salient aspects related to my PhD journey.

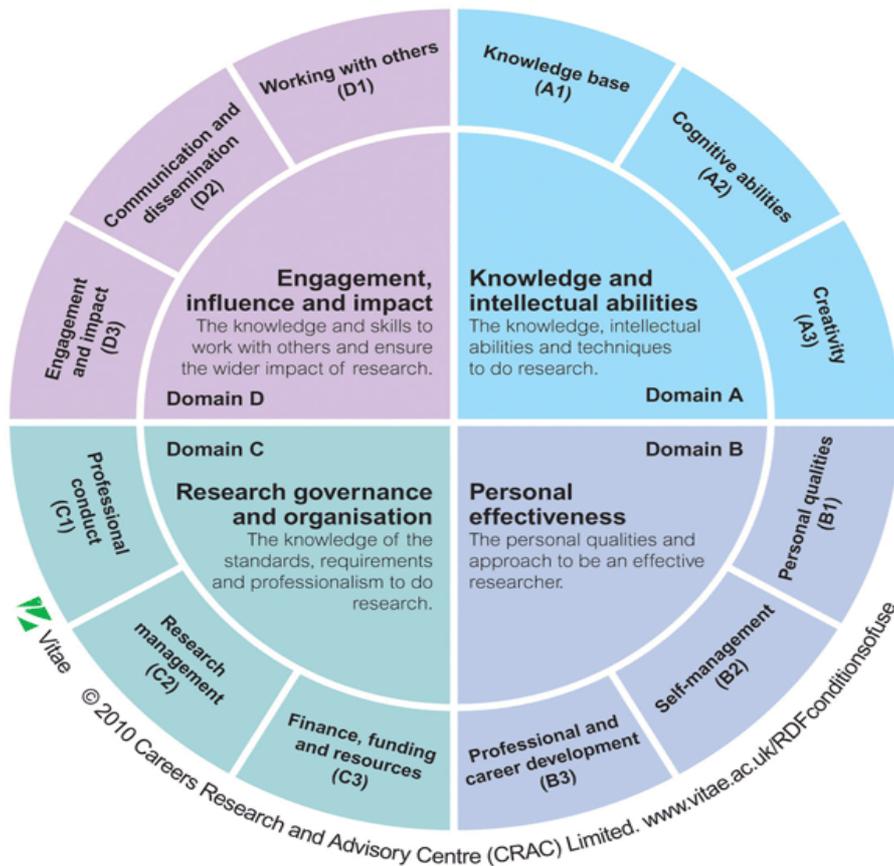


Figure 28. introducing the vitae researcher development framework (RDF) to employers (2011).

The vitae model enables any researcher to define their understanding of and approach to the PhD process. Each domain focuses on one specific aspect that the researcher needs to be aware of and tackle.

Table 29 Researcher Development Assessment

<p>Domain A: Knowledge and intellectual abilities</p>	<p>Knowledge base</p> <ul style="list-style-type: none"> • Read relevant journal articles from the literature review. • Read books on quality, research. • Read reports from the NHS in regard to quality, patient satisfaction, organisation culture, quality improvement. • Very good knowledge base from the MSc programme in Leadership and Management of Healthcare Practice. • Internal courses and workshop via the nursing school at University of Salford, such as SPSS courses, literature reviews, qualitative and quantitative methods, philosophy and the research paradigm. • External courses from outside Salford University, such as the fifth and sixth PhD student conferences at Hull University. • Some related online courses from websites in regard to quality, leadership, improvement, patient satisfaction, SPSS and NVIVO • Using Salford SOLAR, which includes huge database links. 	<p>Cognitive ability</p> <ul style="list-style-type: none"> • Take a process and evaluate sources of information and use them to make decisions. • Evaluate each chapter in the research and explain the outcomes. • Use professional experience to support the research from a practical point of view. • Evaluate some theses in regard to quality and try to identify their weaknesses and strengths. • Prioritising supervisor meetings, attending on the time and understanding what the supervisors are talking about generally. • Fully understand communication between my supervisors and me. 	<p>Creativity</p> <ul style="list-style-type: none"> • Design a new type of study to incorporate all major stakeholders in health provision, from government to operational level. • Design a new way to view the way in which patients respond to new quality in health alongside nursing providers.
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<p>Domain B: Personal effectiveness Domain</p>	<p>Personal qualities</p> <ul style="list-style-type: none"> • Commitment to the PhD and tenacity towards completing things in a stage gate manner. • Time management in terms of meeting project milestones. • Teamwork with other colleagues, both in the UK and Saudi Arabia. • Knowledge acquisitions meant I could learn at a rapid rate. • Self-motivation to work alone and achieve the aims and objectives of this project. 	<p>Self-management</p> <ul style="list-style-type: none"> • Motivation to plan, direct and execute project-related activities. • Project planning using software to plan every project milestone until completion. • Self-confidence in my ability to complete the work and understand the dynamics of the work to succeed. 	<p>Professional and career development</p> <ul style="list-style-type: none"> • Attained a job role in the school of public health in terms of quality delivery of public health services via hospitals. • The ability to complete work. • Specific CQI and IRCA quality qualifications relating to QMSs (quality management systems)
<p>Domain C: Research governance and organisation domain</p>	<p>Professional conduct</p> <ul style="list-style-type: none"> • Responsible attitude towards work. • Formal communication protocols adhered throughout the lifecycle of this project, not only with supervisors, but also with hospital management in Saudi Arabia. • Learnt and used a number professional conduct approaches aligned with RACI (responsible, accountable, consulted and informed). This key principle ensured that all relevant stakeholders were dealt with in a timely and professional manner. 	<p>Research management</p> <ul style="list-style-type: none"> • From the Gantt chart, research was planned according to the PhD handbook. • Ethical approval received from the University of Salford Ethical Committee. • Similarly, approval from the Ethics Committee from the Saudi MOH was received; however, this was a lengthy and highly challenging process. 	<p>Finance and funding</p> <ul style="list-style-type: none"> • Supported by my Embassy for the PhD throughout the research journey.

<p>Domain D: Engagement, influence and impact</p>	<p>Work with others</p> <ul style="list-style-type: none"> • Working with others internally and externally. • External with supervisors and colleagues inside the school and university, also with some managerial and academic staff. • External with friends outside the university campus, also with participants at the data collection stage. • Communicate with PhD students to share ideas. • Communicate with academic staff for consultation. 	<p>Communication and dissemination</p> <ul style="list-style-type: none"> • Written elements were disseminated via emails, written updates and Skype meetings. • The researcher will seek to publish findings in regional and/or international journals. 	<p>Engagement and impact</p> <ul style="list-style-type: none"> • The impact of this work will assist the MOH develop tools to assess quality within hospitals and realise the key factors in terms of quality provision and quality acceptance in these hospitals. • TQM is a new field of integration in the Saudi healthcare system, and so this work will highlight the perspectives of various stakeholders from the MOH and the way in which operational input can maximise the operational visions of quality healthcare in Saudi in a patient-centric way.
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From the above domains there are a number of key academic skills that were refined and developed for the purpose of personal progression. This tool was not only pivotal but also essential for the research process to be successful and relevant.



Figure 29. Gibbs' Model

Key reflections

Several academics have proposed models on reflective cycles or stages/levels of reflection.

I was very impressed by the Gibbs Model process cycle, as it helped me to carry out a number of key reflections in terms of personal development as well as academic development. I feel it fulfilled my own personal ambition of becoming a principal researcher in the future. With the correct reflective cycle there are a number of ways in which this not only influenced, but also helped to ensure that the correct level of pertinent skills acquisition could be planned for.

Summary and conclusion

The table below highlights the key points learnt from Gibbs' cycle of reflection and the key concepts gleaned from this module.

Table 30 Gibbs' learnt points

What happened?	The purpose of this reflection is to review the essence of the learning journey for this PhD	
Feelings	I feel there are a few key deficiencies that have been overcome from the personal competence and academic skills levels	
Evaluation	What went well?	What went not so well?
	The academic learning aspects using key learning workshops, peer-to-peer learning, using PhD-specific frameworks such as RDF. Using project planning software Microsoft Project and Endnote for bibliography management. Also previous PhD studies from the Saudi Digital Library, which helped with the scholarship.	Aspects of the personal competence journey were difficult, especially in terms of language and communication, as English is not my first language. Also, understanding the relationship with both of my supervisors was important. Albeit understanding hierarchical relationships and the culture of research in the UK took some time to adjust to.
Analysis	Learnt: There are a number of tools that can enable a researcher to fulfil their potential, once people can be understood and direction negotiated. Barriers in communication or personality may cause some problems, but in understanding the cognitive basis of personality and environment, behaviour can be modified.	
Action	If presented with a similar situation once I go back to Saudi Arabia, I feel that I would be able to utilise these techniques to comprehend, analyse and ratify any piece of research work. This is due to the fact that I can understand the basis of research from both a personal competence perspective and an academic perspective as I prepare for postdoctoral research.	

This personal reflection has examined the key learning points that have been essential in this research journey in the field of healthcare research, not only from an academic viewpoint, but also from a personal perspective.

Appendix 15: Ethical Approval University of Salford

University of
Salford
MANCHESTER

Research, Innovation and Academic
Engagement Ethical Approval Panel

College of Health & Social Care
AD 101 Allerton Building
University of Salford
M6 6PU

T +44(0)161 295 7016
r.shuttleworth@salford.ac.uk

www.salford.ac.uk/

23 September 2014

Dear Ibrahim,

RE: ETHICS APPLICATION HSCR14/47 – The quality measurement requirements needed to implement high quality care in Saudi Arabian hospitals

Based on the information you provided, I am pleased to inform you that application HSCR14/47 has been approved.

If there are any changes to the project and/ or its methodology, please inform the Panel as soon as possible.

Yours sincerely,

Rachel Shuttleworth

Rachel Shuttleworth
College Support Officer (R&I)

Appendix 16: Ethical Approval Acceptance Letter Ministry of Health KSA

Kingdom of Saudi Arabia
Ministry of Health
King Fahad Medical City
(162)

المملكة العربية السعودية
وزارة الصحة
مدينة الملك فهد الطبية
(١٦٢)

وزارة الصحة
مدينة الملك فهد الطبية
King Fahad Medical City

February 24, 2015

TO WHOM IT MAY CONCERN:

Subject: End of data collection process

This is to certify that Ibrahim AlQasimi undertook and complete his research here from 11 November 2014 to 23 February 2015. The topic of research was 'The quality measurement requirements needed to implement high quality care in Saudi Arabian hospitals'.

Sincerely yours,


Prof. Omar H. Kasule
Chairman Institutional Review Board--IRB.
King Fahd Medical City, Riyadh, KSA.
Tel: + 966 1 288 9999 Ext. 26913
E-mail: okasule@kfmc.med.sa

وزارة الصحة
مدينة الملك فهد الطبية
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