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Exploring staff perspectives of the barriers and facilitators to implementation of total quality management in two Jordanian hospitals

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ ﴾

سورة المجادلة (11)

In the Name of Allah, the Most Beneficent, the Most Merciful

﴿ Allah will raise those who have believed among you and those who were given knowledge, by degrees. And Allah is acquainted with what you do ﴾

Sorah Al-Mujadilah (11)

ABSTRACT

Background and Rationale: 'Total quality management'(TQM) is defined as the philosophy of seeking to satisfy customers' needs and continually improve quality (Stevenson, 2002). In the 1980s, the concept of TQM first emerged in Japan's industrial sector, moving to the West and Australia in the 1990s. It grew in importance and many companies strove to implement it as a means of developing and upgrading their services. It is significant for healthcare organisations in the enhancement of their care service quality, as well as helping them to improve their management, achieve more effective organisation, increase staff satisfaction, promote commitment to the organisation, encourage teamwork among staff and management, and increase patient satisfaction.

TQM is therefore a relatively new philosophy, but it has rapidly become one of the most widely used strategies for enhancing organisational performance. TQM has only very recently been adopted in Jordan's service sector, particularly in its healthcare organisations, where it has faced major challenges. A review of the literature in this study revealed a gap in the area of TQM implementation in Jordanian healthcare organisations, indicating the pressing need to understand and manage the factors that impact on it.

Purpose: The purpose of this study was to explore the barriers and facilitators of TQM in order to gain a better understanding of TQM implementation in the Jordanian healthcare sector; particularly from the staff perspective, namely managers, nurses and doctors in two Jordanian hospitals.

Methods: This study is qualitative in nature, using a multiple case study methodology. It was conducted in two hospitals in Jordan, one private (Hospital A) and one public (Hospital B). Three data collection approaches were used: face-to-face semi-structured interviews, document review and observation. The interviews comprised the main data collection tool, whereby a sample of 35 participants were interviewed at the two hospitals (managers, nurse and doctors). Documentary review and partial-participant observation were then employed for the purpose of triangulation and to obtain a deeper understanding of TQM barriers and facilitators. The data collected from the case studies were subjected to thematic analysis, using a framework analysis technique and guided by Normalisation Process Theory (NPT). The Application of NPT promoted a better understanding of the implementation process and provided an appropriate theoretical framework for this study.

Findings: Eleven themes were derived from the synthesised study findings, using NPT. Thus, the key barriers and facilitators of TQM were explored to promote successful TQM implementation in Jordanian hospitals. The interviews, document review and observations suggested that commitment and support from the top management were important

facilitators of TQM implementation; increasing training and staff awareness, and thereby empowering staff in the workplace. Other important TQM facilitators included communication; the recruitment of qualified and efficient hospital managers; patient involvement and engagement, and teamwork, with the breaking down of professional barriers in Hospital A. However, conflicting results were obtained for motivation, wages and benefits, which proved to be facilitators in Hospital B and barriers in Hospital A. In short, the Hospitals faced three main barriers to TQM: cost, especially evident from the interviews and document review in both Hospitals; lack of motivation, and low salary and incentives (leading to staff shortages and high staff turnover), and resistance from doctors, particularly in Hospital A. Staff resistance in general was also found to be a significant barrier to TQM implementation, but this was more evident in Hospital B.

Conclusion: This study explored the main barriers and facilitators of successful TQM in Jordanian hospitals, based on responses from managers, nurses and doctors. The main barriers were found to be cost, lack of motivation, low salary and incentive, staff shortages and high staff turnover, excessive workload, doctors` resistance, and general staff resistance. If these barriers are not promptly addressed, they can impede TQM in hospitals and negatively affect the quality of services provided, with potentially serious outcomes. In contrast, successful TQM implementation depends on important facilitators such as commitment and support from top management, training, staff awareness, communication, teamwork, patient involvement and engagement, the recruitment of qualified and efficient hospital managers, motivation, and attractive wages and incentive. Attention to these areas could improve the effectiveness and efficiency of TQM programmes in Jordanian hospitals.

The present study makes an original contribution to existing knowledge, as it is the first empirical exploration of TQM implementation in Jordanian hospitals; endeavouring to provide an in-depth understanding of the factors affecting this process. It therefore also contributes to the literature in the wider context of the Middle East. It is hoped that these results will be used in future to help healthcare service providers understand the importance of TQM practices and overcome the difficulties encountered when attempting to implement them. Therefore, it offers valuable insights to managers and policymakers in the Jordanian healthcare context, with regard to the future planning and monitoring of TQM programmes.

Keywords: Total quality management, implementation, barriers, facilitators, hospital, hospitals healthcare sectors, Jordan, qualitative, case study, NPT, managers, nurses and doctors.

Dedication

To the *Messenger Mohammad (Peace and blessing be upon him) for his endless guidance toward the right path....*

To the pure soul of my father who had dreamt to witness these moments....

To my kind-hearted mother for her unlimited love, inspiration, sacrifices and prayers....

To my sweetheart and beloved wife for her endless love, patience, encouragement and support....

To my beloved children for their smiles and love that give me energy to work....

To all my brothers and sisters for their help, support and encouragement....

To my parents-in-law for their endless help and continuous support....

To all my friends in Palestine for their friendship and brotherhood....

I dedicate this work hoping that I made all of them proud....

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Finally, I dedicate this work to my lovely country, Jordan. This work is a small expression of my love and gratitude for you.

Abdullah Alqunmeeyn,

March, 2019

Declaration

The research described in this thesis was conducted in the School of Health Sciences, Division of Nursing, the University of Nottingham between October 2016 and April 2019. I declare that the work is my own and has not been submitted for a degree of another university.

Abdullah ahamad abadullah ALgunmeeyn,

March, 2019

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Abbreviations

TQM	Total Quality Management
QMS	Quality management system
ISO	International Organisation for Standardisation
QA	Quality assurance
CQI	Continuous Quality Improvement
IOM	Institute of Medicine
JCAHO	Joint Commission on Accreditation of Healthcare Organisations
JCI	Joint Commission International
IPSG	International Patient safety Goal
PDCA	Plan-Do-Check-Act
GDP	Gross domestic product
ICU	Intensive care unit
UK	United Kingdom
USA	United States of America
IRB	Situational Review Boards

Definitions of Key Terms

Total Quality Management. A system of management based on the principle that every member of staff must be committed to maintaining high standards of work in every aspect of a company's operations.

Quality Management (QM). A management philosophy that ensures consistency within product or services of an organisation. It is comprised of four parts, including quality assurance, quality improvement, quality planning, and quality control.

Accreditation. A self-assessment and external peer review used by healthcare organisations to accurately assess their level of performance in relation to established standards, and to implement ways to continuously improve the healthcare system.

Joint Commission International (JCI). Identifies, measures, and shares best practices in quality and patient safety with the world. It provides leadership and innovative solutions to help health care organizations across all settings improve performance and outcomes.

Quality assurance (QA). An effort towards changing or improving service level as per quality measures (Charantimath, 2017).

Quality Improvement (QI). A formal and systematic analytical approach that examines efforts and practice performance aimed towards improvement of performance.

Total Quality Control (TQC). An application of principles of quality management on all designing and delivery areas of business rather than limiting them to production processes and activities only.

Continuous Quality Improvement (CQI). A management concept which is used by companies for minimising waste, increasing internal satisfaction of employees, enhancing efficiency, and increasing external satisfaction of customers. It is also termed as a continual process which examines working and ways of improvement of processes within an organisation (Charantimath, 2017).

Customer satisfaction. The extent to which expectations of customers are either exceeded or met related to any service or a product.

QC is a set of activities for ensuring quality in products. The activities focus on identifying defects in the actual products produced. QA aims to prevent defects with a focus on the process used to make the product. It is a proactive quality process.

Chapter 1 Introduction

1.1 Introduction

This chapter outlines the structure of the thesis, as shown in Figure 1.1, and introduces the topic of total quality management (TQM) implementation in Jordanian hospitals. In particular, barriers and facilitators of TQM implementation are explored in this context, viewed from the perspective of managers, nurses and doctors. The research background and rationale are hereby presented in this introductory chapter, in a general description of TQM and a statement of the need to implement such programmes in healthcare organisations. Total Quality Management (TQM) is a comprehensive strategy of organizational and attitude change for enabling personnel to learn and use quality methods, in order to reduce costs and meet the requirements of patients and maximization of patient's satisfaction " (Ovretveit, 2000).

This chapter also details the aims and objectives of the current study, together with the research question, significance of the study, research methodology, context, research limitations, and definition of key terms.

1.2 Research Background and Rationale

TQM has developed as a prominent and highly significant management practice over the past two decades. In the early 1980s, the concept of TQM first emerged in Japan and became prevalent in Australia and other Western countries. Later, in the 1990s, the application of TQM became the norm across most of the industrialised world, where it was employed to develop and enhance businesses (Raut et al., 2017).

TQM is defined as a management approach that relates to work processes and human resources. It involves enhancing organisational performance to attain customer satisfaction (Taiwo, 2001, Kapaki and Souliotis, 2017). It is also defined as a management and leadership method, aimed at examining a system to detect potential deviation and error, in contrast to the so-called 'blame culture'. It therefore consists of looking closely at: processes; measuring improvement in a system based on accurate data; arranging effective collaborative meetings to support teamwork; ensuring that staff engage with set targets; generating results in the form of feedback; making minor incremental steps to accomplish long-term improvement; developing long-term associations with internal and external suppliers; promoting staff involvement in the examination and improvement of systems; providing training to managers and supervisors, so that they can lead the

improvement process, and reflecting on the need for strategic planning, on behalf of senior executives (Aladwan and Forrester, 2016).

TQM is sometimes also referred to as 'quality improvement' (QI), 'total quality control' (TQC), 'continuous quality improvement' (CQI), and 'quality management' (QM). The key principles of TQM include dedication to quality, long-term commitment, continuous improvement, training, unity of purpose, employee empowerment, customer focus, a scientific approach, teamwork, education, freedom via control and employee involvement (Al-Ali, 2014).

At present, various challenges are faced by most healthcare organisations, namely the high cost of providing health services; the consequent pressure to reduce these costs; high demand to satisfy patients' needs; dependence on rapidly advancing technology; pressure to improve quality as a healthcare organisation, in order to gain a competitive advantage worldwide; the obligation to adhere to established standards; the pressure to maintain top quality services, and the need to improve quality to gain licenses from international entities (Safety and Care, 2012). In consideration of these challenges, health planners are required to adopt quantifiable healthcare management systems, which will allow them to provide high quality services, in accordance with hospitals' quality management programmes. It is suggested that all these challenges may be overcome, if healthcare organisations adopt TQM systems (Raut et al., 2017).

Jordan's service sector makes up 70% of the nation's gross domestic product (GDP) and hospitals are among the main players in the service industries. As such, they have redirected their outlook towards implementing TQM (Al-Shdaifat et al., 2015). Even though a substantial amount of literature has examined the effectiveness of implementing TQM in Jordanian hospitals, no study has hitherto identified and examined the barriers and facilitators that impact on its implementation in the above-mentioned context (Abu-Aysheh, 2014). Therefore, this study represents an attempt to fill the gap in the literature. Moreover, it should be noted that dramatic changes have recently taken place in the Jordanian hospital sector, due to the establishment of healthcare systems and implementation of novel managerial approaches, i.e. TQM. Nevertheless, despite the fact that TQM practices play an integral role in enhancing business performance, many companies have demonstrated poor performance during the implementation of their quality programmes (Al-Zu'bi and Judeh, 2011). Therefore, another rationale for conducting this study was that it would analyse TQM implementation in hospitals in Jordan; identifying the barriers and facilitators of their success or failure to provide quality healthcare.

Over the years, Jordan has developed into one of the main destinations in the region for medical tourism, and it is swiftly gaining an international reputation for high quality healthcare at a reasonable cost (Ministry of Health Jordan Website, 2016). In the course of the past eight years, some Jordanian hospitals have sought and even gained international accreditation. A proportion of these hospitals have also attempted to adopt TQM, sometimes successfully (Dammaj et al, 2016). In practice, however, TQM implementation is usually beset with numerous difficulties, to which hospitals in Jordan have not been immune (Ajlouni et al., 2010; A'Aqoulah et al., 2016). Instances of failed TQM initiatives have consequently led researchers to focus more directly on the barriers and facilitators bearing upon the success or failure of TQM implementation. However, the current researcher is aware that the existing literature on TQM implementation in Jordanian hospitals has not fully addressed these barriers and facilitators in relation to the outcomes (A'aqoulah et al., 2016). The consequent research gap therefore points to the pressing need to study this aspect of hospitals' operations.

1.3 Significance of the Research

According to Al-Ali (2014), TQM can be implemented effectively through the monitoring of output, processes and input. In this regard, the extent of TQM implementation may be evaluated by exploring the barriers and facilitators of TQM implementation in Jordanian hospitals. This research is important, because it examines the ways in which these barriers and facilitators can either lead to the success or failure of TQM implementation. Moreover, TQM is considered pivotal to enhancing organisational performance and achievement (Ozdal and Oyebamiji, 2018). However, there are only a limited number of studies that have identified both the barriers and facilitators affecting TQM implementation in hospitals in developing countries, which reinforces the significance of this research.

It is essential that any hospital in Jordan that embarks on a TQM journey also recognises the barriers and facilitators associated with this process. By understanding the possible severity of such barriers, Jordan's hospitals will be better placed to anticipate the difficulties and develop solutions to them, where these issues would otherwise hinder successful TQM implementation. Finally, hospitals that expend adequate time in planning for the cultural aspects of implementing TQM schemes will increase the probability of their successful implementation (Dixon-Woods and Martin, 2016).

Another significant aspect of this research is that it identifies the facilitators and interlinks TQM with operational flexibility in the context of Jordanian hospitals. As a result, it has helped reveal the relationship between TQM, hospital performance, operational flexibility, and hospital efficiency (Alolayyan et al., 2011). Conversely, this study also identifies the

facilitators of successful TQM implementation, thereby offering guidance to Jordanian hospitals as they seek to improve their performance. In this way, the current study findings could help healthcare leaders ensure successful TQM implementation by avoiding the barriers and exercising the facilitators. Consequently, Jordanian hospitals will learn how to employ TQM as a means of enhancing patient satisfaction, improving their performance as healthcare organisations, providing optimal healthcare services, and increasing their profitability or productivity (El-Tohamy and Al Raoush, 2015).

In terms of the healthcare industry, the key stakeholders, namely clients and patients, demand high quality services. Jordan is a developing country, in which TQM implementation is still uneven in its application as a strategic tool. This shows that hospital quality management is a neglected domain in the context, despite being of crucial importance. Therefore, poor delivery of quality healthcare services has led to low customer satisfaction and declining staff performance (Huq et al., 2010, Yousefinezhadi et al., 2017). It points to a great need to enhance performance and quality management in Jordan's healthcare sector, due to inefficient leadership, poor managerial skills, low staff performance, low accountability, and weak strategic planning (Al-Shdaifat et al., 2015). Hence, this study will be significant in that it explores both the barriers and facilitators of TQM implementation, so that an effective quality management approach can be determined, adopted, implemented, evaluated and then monitored to improve efficacy, competitiveness and flexibility (Al-Zu'bi and Judeh, 2011). Moreover, Al-Shdaifat et al. (2015) reports that a number of private and public hospitals in the Middle East in general and more specifically, in Jordan are currently in the process of applying TQM to attain international standards.

A detailed review of the literature on implementing TQM in hospitals reveals no parallel studies, but rather a gap in the investigation of barriers and facilitators of TQM implementation in Jordanian hospitals. Thus, this current study is expected to assist health professionals and managers in establishing and meeting TQM standards successfully in the corresponding context. It explores the issue in a sample consisting of a public (state-sector) and private hospital in Jordan.

1.4 Research Aim and Objectives

This PhD attempts to gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector, from the perspectives and experiences of staff; including managers, nurses and doctors at two selected Hospitals. This broad aim will be accomplished by fulfilling the following specific objectives:

1. Exploring the main barriers, if any, which affect the application of TQM in Jordanian hospitals.
2. Identifying the factors that are most likely to facilitate successful TQM implementation in Jordanian hospitals.
3. Exploring the experiences of managers, nurses and doctors, with regard to TQM implementation in Jordanian hospitals.
4. Categorising the common barriers and facilitators involved in meeting TQM standards in Jordanian hospitals.
5. Making recommendations for enhancing the sustainability of TQM implementation in the context of Jordanian hospitals.

1.5 Research Question

The literature on TQM implementation in both the developed and developing countries is limited in its scope, and this also applies to Jordan. On this basis, the following research question was formulated:

1. What are the barriers and facilitators associated with implementing total quality management (TQM) practices in Jordanian hospitals, from the perspective of nurses, managers and doctors'?

1.6 Originality of the Research and Its Anticipated Contribution

The most important contribution made to current knowledge by this PhD and hence, its originality, stems from its in-depth exploration of the barriers and facilitators on the implementation of TQM programmes in Jordanian hospitals, with the subsequent understanding that might be gained from such a study. The identified barriers and facilitators were then utilised to assess the process of TQM implementation, thus filling the gap in the limited literature on this topic and bolstering the body of available knowledge on TQM in the healthcare sector. More precisely, the results should offer a clearer understanding of TQM implementation in hospitals across the Middle East in general and Jordanian hospitals in particular; including the categorisation of those factors that lead to successful TQM implementation. As mentioned previously, the necessity for such a study arises from the fact that no case study research exists to date on the barriers and facilitators of TQM implementation in Jordanian hospitals.

1.7 Research Methodology

Two main study approaches were considered, before selecting a suitable methodology for this research. In this case, a qualitative method was adopted as it would permit the

investigator to gain an in-depth view of the subject, in order to draw meaningful conclusions. Qualitative research is characterised by its potential to gather rich descriptions and explanations of processes in identifiable local contexts (Creswell, 2013).

A case study design was adopted, as it was deemed to be best-suited to meeting the current study aim and objectives; namely to gain an in-depth understanding of the process of implementing TQM in Jordanian hospitals. Additionally, a case study is appropriate for answering 'How?' or 'Why' questions (Yin, 2015) and this points to its application in an exploration of the barriers and facilitators that impact on TQM implementation in the chosen context (Starman, 2013).

Aside from the above, a phenomenological (constructivist) method was selected as the underpinning research philosophy (see Section 5.2). The choice of a constructivist theoretical perspective for this study was anticipated to enable the investigator to interpret the experiences communicated by the study sample, composed of managers, nurses and doctors. Moreover, two key opposing research paradigms exist: positivism and interpretivism. Interpretivism stresses the importance of understanding individual experience, both inductively and holistically within specific settings. Thus, according to Creswell (2013) and Ritchie et al. (2013), it is an approach that centres on comprehending experiences from the participants' point of view.

As the aim in the current study was to understand the barriers and facilitators of TQM implementation from the perspective of managers, nurses and doctors, an interpretivist approach was adopted. This decision was made in order to best answer the research question, which refers to the experiences of the above-mentioned staff, who participated in the TQM implementation process. The overarching aim here was to gather rich and deep data on the change imposed on the corresponding organisations, via implementing a method in a real-world context. Meanwhile, constructivism also recognises that in order to be able to understand an object, one must observe or discover how it is experienced, thereby influencing the construction of its meaning. Therefore, constructivists argue that nothing exists in isolation, and human experience is essential to understanding meaning (Schwandt, 2003).

Using a case study method within a broad qualitative framework, the data in the current study were gathered in a series of face-to-face interviews, as well as through document review and observations (see Section 5.10). Semi-structured interviews are deemed to be suitable for obtaining data that can be compared (Lincoln et al., 2011, Fraenkel and Wallen, 2000). This approach can also help to reduce researcher bias and facilitate the organisation and analysis of research data (Lincoln et al., 2011, Yin, 2015, Keightley, 2010). Moreover, since the current study involved multiple levels of participants (managers, nurses and

doctors), as well as two hospitals in different sectors, one private and one public, the need arose for the researcher to be able to match the respondents' perspectives across these different dimensions. The semi-structured interview format allowed the researcher to make these comparisons in an organised manner whilst also providing the flexibility to ask further and probing questions.

As mentioned above, document review and observation were the two other methods employed in this study to confirm and support the data gathered in the semi-structured interviews. In this way, the interview data were triangulated to enhance their credibility and validity (Yin, 2015). Therefore, three types of data collection were exercised to gain a wide variety of information on TQM and to benefit from the strengths of each method; consequently, gaining a deeper understanding of the barriers and facilitators of TQM implementation in Jordanian hospitals. This study also used a framework approach to analyse the data, guided by Normalization Process Theory (NPT) (Section 5.11). The data gathered from semi-structured interviews, document review and observation were then analysed thematically to produce findings in response to the research question.

Convenience and snowball sampling were used in the current study (see Section 5.6.3). The rationale for choosing this sampling method was based on the expectation that it would better yield a better a representative study population, and prove to be convenient for conducting semi-structured interviews with an identified population (Green et al., 2015). The interviews were then conducted on the premises at each Case Study Hospital. The sample selected for interview consisted of 35 participants from the three occupational areas mentioned earlier: 11 were managers, 12 were nurses, and 12 were doctors. The sample size was determined by data saturation. Data collection continued until data saturation was achieved in this selected group of participants (Creswell, 2013) (see Section 5.10.1.1). This method was used in place of other sampling techniques as it was most appropriate to meet requirements of the research objective, qualitative design, and in generating rich data from a variety of participants' perceptions towards TQM implementation (Bryman, 2016). As the final interviews were conducted, no new or relevant information emerged with respect to the research question.

1.8 Outline of the Thesis

This thesis is divided into eight chapters to cover the background information, motives for conducting the study, review of the literature, theoretical framework, research methodology, results, discussion, conclusion, and implications of the findings, as illustrated chapter by chapter in Figure 1.1, below.

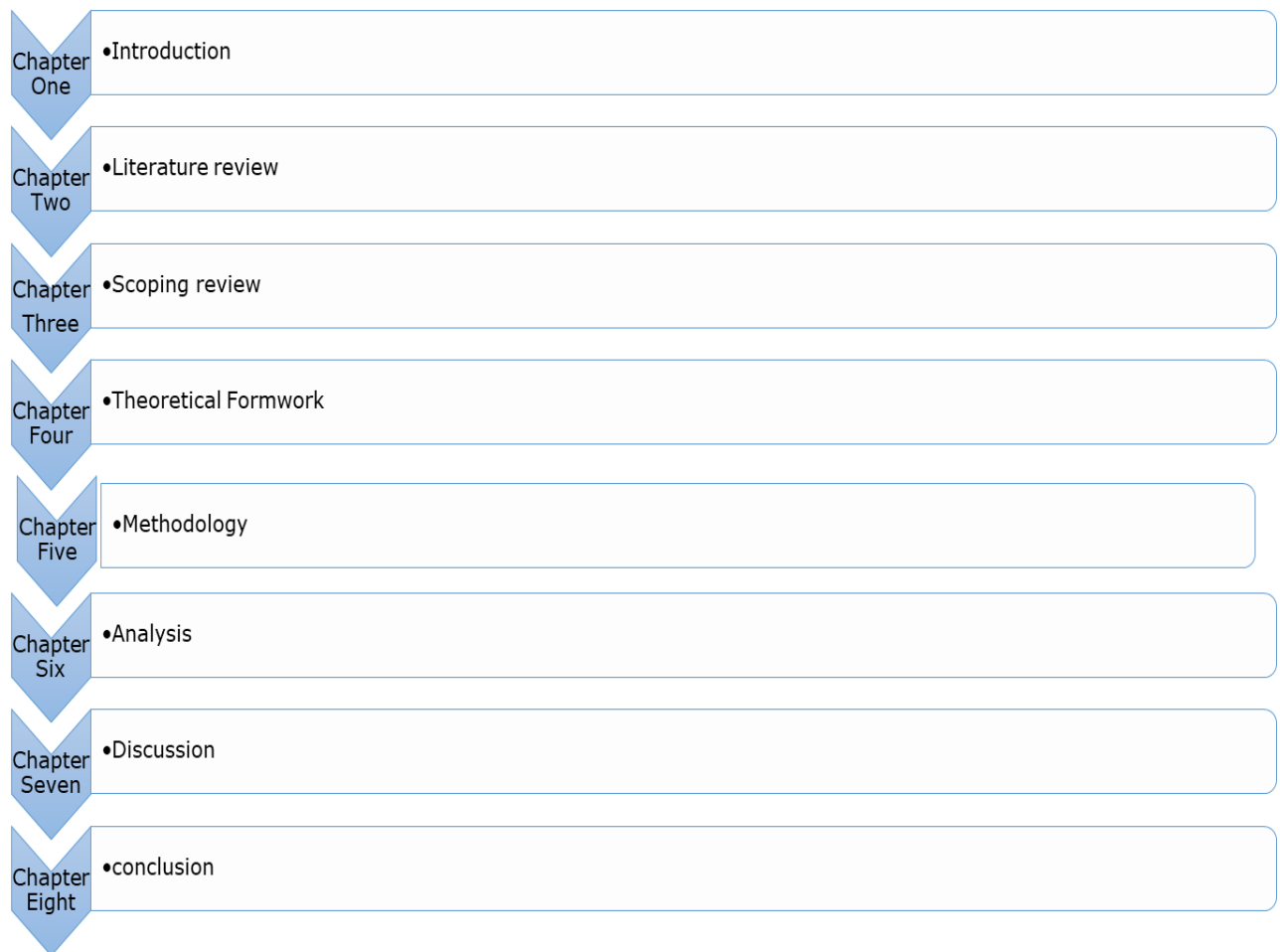


Figure 1.1: Outline of the thesis

A brief summary of the content of each chapter is presented below.

Chapter 1

The Introduction chapter gives an overview of the entire study, together with the researcher's own reflections. It therefore presents a short summary of the background to the study, as well as the research aim and objectives, research question, significance and justification of the study, a brief explanation of the research methodology, and an indication of the study's limitations. It ends with an outline of the thesis as a whole and definitions of the key terms.

Chapter 2

The second chapter presents a critical review of the literature relating to TQM implementation. It is divided into several parts: the first introduces the chapter, and the second discusses quality in healthcare. The third section then examines the history of TQM and its definitions in the healthcare context, according to the current literature on the topic. The fourth section of Chapter 2 reviews the literature on TQM in healthcare, outlining the

philosophy and concept of TQM, and its implementation (both globally and in the Middle East, as well as specifically in Jordan). The fifth section looks at the pros and cons of TQM, in terms of its failure and success, placing it in the present study's theoretical context. The final part of Chapter 2 is dedicated to the study context, namely Jordan and its economy, education system, healthcare, the general health profile of its population, and main quality trends.

Chapter 3

The third chapter critically evaluates the abundant literature on quality programmes and TQM within industrial, service, and the healthcare sector. Its focus is on the role of TQM in the Jordanian healthcare industry, with a view to formulating the interview questions, while also identifying potential gaps in the research. In short, therefore, Chapter 3 presents a review of the relevant literature on the implementation of TQM in hospitals worldwide. It enables the researcher to comprehend the concept of TQM implementation in the healthcare sector in general, so that a suitable research methodology could be selected for this study, and the interview questions could be developed. The researcher subsequently highlighted the main points for discussion, in order to determine how TQM implementation could be better understood.

Chapter 4

In Chapter 4, the theoretical framework for this current research project is clarified, with an explanation of Normalisation Process Theory (NPT), whereby NPT is reviewed, compared and contrasted to other potential theories, in order to justify its application to this study.

Chapter 5

In Chapter 5, the researcher presents his philosophical stance, namely constructivism, where the methodology for the current study is described, as well as the rationale for selecting this methodology, and a description of the study design. In particular, this chapter gives a detailed explanation of the multiple qualitative case study approach adopted. Also described is the research process, including the study setting, recruitment of interviewees, sampling strategy, research approach, and criteria for selecting the cases (the Hospitals). Moreover, the data collection, management and analysis are outlined, as well as the ethical considerations involved in the case study approach, through which the rigour of the study is enhanced. Here, it was also imperative that the researcher's own potential for bias was accounted for, in terms of his social background and personal assumptions, prior to embarking on the study.

Chapter 6

Chapter 6 provides background on the interviewees and the profiles of the two Case Study Hospitals. The actual data-gathering methods utilised are described, as well as the method of data analysis, in order to fulfil the research objectives and address the research question. The individual case study interviews are contextually analysed, combined with cross-case analysis to explore and compare the similarities and differences in the themes emerging in relation to the staff and their roles in a private and a public hospital in Jordan. The results are reported in the interviewees' own words. This chapter concludes with a summary of the overall results from the three data sources. This is followed by the results obtained from this study were mapped into the two constructs of the NPT.

Chapter 7

Chapter 7 provides an overall discussion of the findings. In this chapter the researcher discuss the key findings in relation to current literature. The chapter presents reflect on the theory and methodology used in this research. Finally, the researcher's personal reflection on the research journey is presented.

Chapter 8

This final chapter concludes the study, presenting its outcomes in response to the research question. In particular, it highlights the study's effectiveness in meeting the research objectives. It also mentions the study's implications for future work in this area, as well as highlighting its limitations. Finally, it makes recommendations for Jordanian hospitals, with respect to implementing TQM more effectively.

1.9 Links between the Thesis Chapters

Figure 1.1 interlinked in the previous section (Section 1.8) illustrates the relationship between the different chapters of this thesis and their component parts, while Figure 1.2 below, depicts the conceptual links between the Chapters.

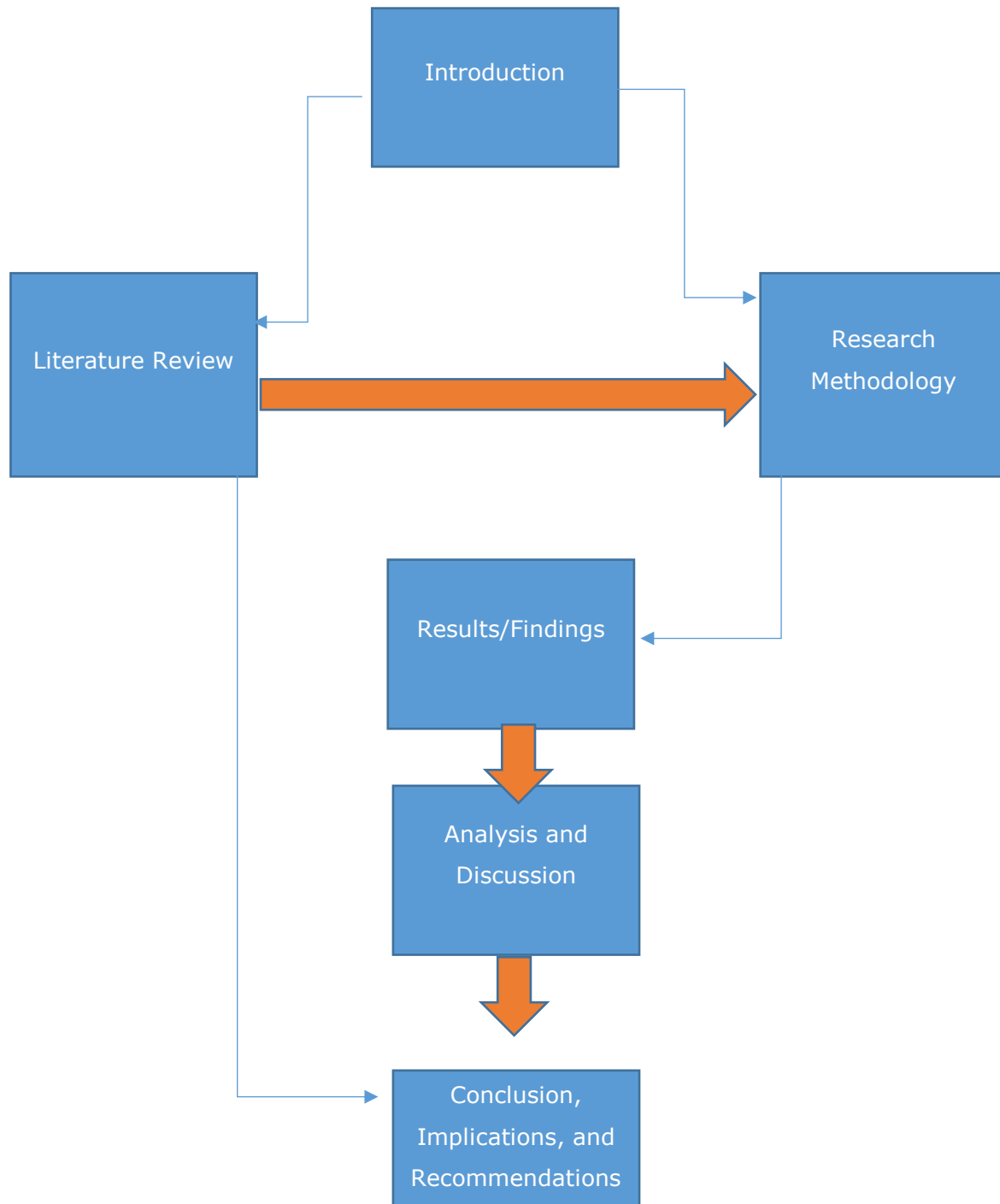


Figure 1.2: Relationship between the thesis chapters

1.10 Summary of the Chapter

This chapter has outlined the overall PhD by introducing the research aim and objectives, formulating the research question, presenting the research significance and justification, discussing the research methodology, outline the thesis, mentioning study limitations, and defining the key terms.

Chapter 2 Literature Review

2.1 Introduction

The TQM concept may be considered as the philosophy of undertaking various types of professional activity in the most cost-effective and efficient manner possible. However, in order to be effective in managing cultural change in an organisation, a quality management system needs to be effectively devised and implemented. In other words, the proponents of TQM will be guided by the social, cultural and environmental components of their respective institutions with regard to overall quality. In addition, by improving the way in which quality management is assessed, leading industries in the international sphere can attract, develop and retain the best personnel, thus achieving long-term success through customer satisfaction. Furthermore, the implementation of a TQM system will assist in planning, organising, leading and monitoring industrial practices. In this overview of the value of quality management, most previous research has considered it from the perspective of a management strategy, aimed at embedding individual awareness of quality in industrial processes.

Therefore, this contribution to the literature looks critically at the various implications of TQM; examining the topic in detail in the context of healthcare institutions, both from an international perspective and more specifically, in Jordan. Moreover, in order to improve the implementation of TQM, it is also important to address the reasons behind its failure in some organisations or organisational areas. Hence, to ensure a flow of information, this work also highlights the ways in which TQM systems have led to progress, as well as the failure of existing practices in some cases, from both a historical and contemporary perspective. Furthermore, total quality management practices as they exist in the Middle East in general, and Jordan in particular, will be explored with regard to culture, education, the economy, religion and the overall health of the populations concerned. Earlier research has suggested that total quality management practices are fundamentally associated with the end-users (for example, customers and patients), operations, and innovation. In addition, TQM has been found to promote the evolution of global quality in organisations, thus leading to greater industrial productivity, and enhanced employee engagement and empowerment, thereby enabling work-life quality to flourish.

2.2 Quality

Quality in leading organisational practices is employed via a set of strategic processes, policies and procedures, which are necessary for planning and execution in any core business assessment. As suggested by Koehler (2017), this fundamental organisational practice is directly related to an organisation's ability to meet individual requirements. Conversely, quality can be measured in terms of the global expansion of organisational practices through an emphasis on evolving industrial methods. In the opinion of Kearney (2018), the quality of a management system will depend greatly on the basic approach to providing support for quality in an organisation.

To clarify the above, in order to improve organisational practices, there are numerous principles of quality management that can be implemented internally as part of progress, and these are listed below:

- Leadership
- Customer focus
- The engagement of people
- Improvement
- Evidence-based decision-making systems
- Relationship management
- A systematic approach to management.

These principles are also presented as a hierarchy in the following Figure 2.1 :

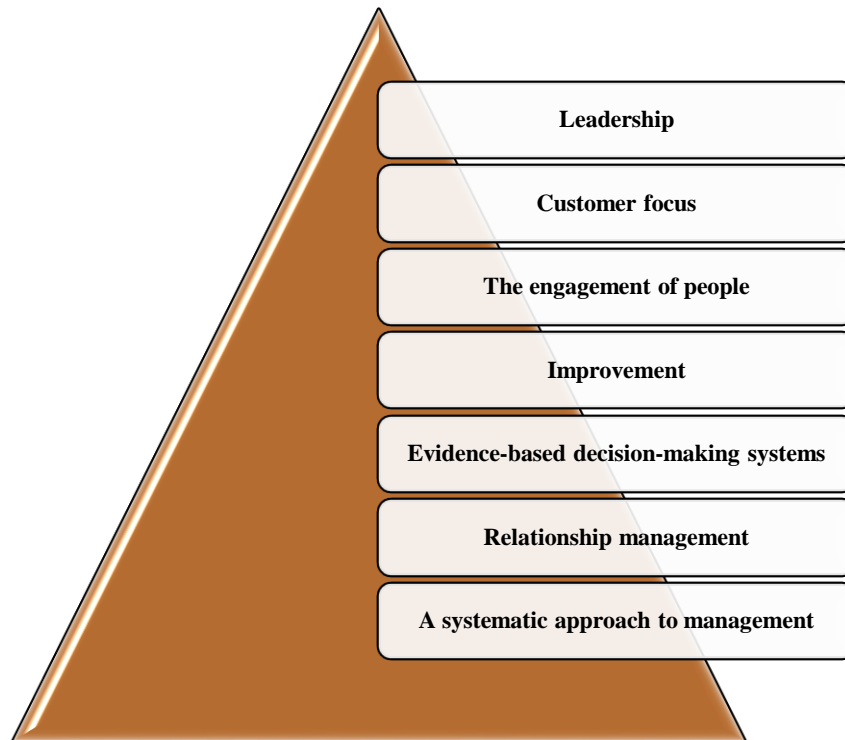


Figure 2.1: Principles of quality management

The above-mentioned principles are all considered to be equally important for ensuring consistent quality. Furthermore, in accordance with Fukuda (2018), TQM can be successfully implemented to achieve the desired results, both nationally and internationally. However, this success will not only depend on the organisational culture involved, but also the wider national culture (Harrison and Lock, 2017). Hence, TQM may be summarised as striving towards industrial value by expanding opportunity in a highly effective and efficient manner.

Therefore, as suggested by Chugani et al. (2017), quality is referred to as a degree of reliability, level of service, grade of product, level of consistency and safety, and the customer's perceptions. In addition, the notion of management quality is often subsumed by the differentiation between services and products. Hence, quality refers to a degree of excellence; implying a favourable comparison, as well as conformity with preferences and the need for the services and products delivered. Therefore, from this point of view, dimensions of quality management quality need to be presented, as listed below:

- Degree of reliability
- Fitness of the product
- Friendliness, durability and courtesy
- Ease of use (based on the ability to anticipate customer requirements)
- Aesthetics

- Serviceability knowledge
- Reputation.

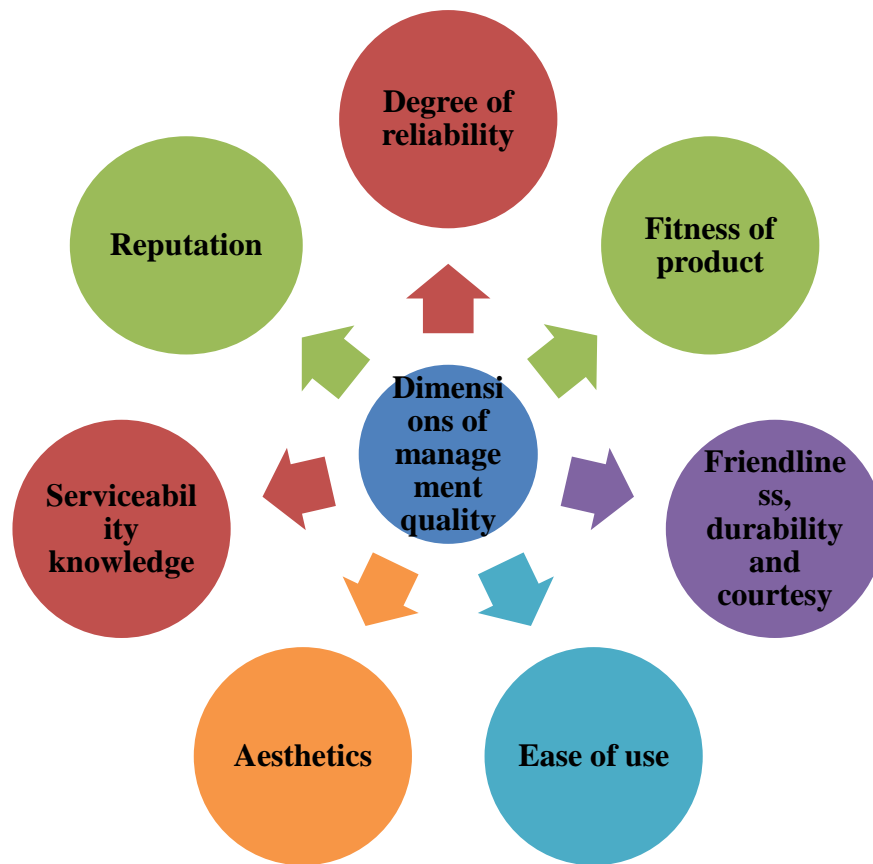


Figure 2.2: Dimensions of management quality (source: author's own)

Quality of healthcare is defined as the degree to which healthcare services can increase the likelihood of desired outcomes in a population. In the opinion of Ziadat (2017), care-based quality plays a crucial role in the so-called 'iron triangle' of healthcare; referring to the intricate relationship between accessibility, cost and quality in the healthcare services that are available to a community. Moreover, quality in healthcare services is closely associated with various dimensions of quality, consisting of:

- Safety
- Effectiveness
- A patient-centred approach
- Timeliness
- Efficiency
- Equitability

The dimensions of healthcare quality listed above serve the purposes of assessment and are indicators of quality, providing an evidence-based and relatively standardised

evaluation of healthcare services. Moreover, this strategic approach to healthcare quality is positively inter-related with TQM systems that help to measure healthcare outcomes, patients' perceptions, healthcare processes, and the capacity of an organisational structure to enhance industrial productivity.

2.3 Total Quality Management (TQM) Systems

2.3.1 Definitions of Total Quality Management (TQM)

According to Sinha et al. (2016, p 55), "TQM is an integrated management philosophy that seeks to continuously enhance the performance of products, processes and services, in order to attain and exceed customer expectations". TQM is defined in three different ways in the context of healthcare services, whereby diverse approaches to TQM may be identified. One of these definitions refers to TQM as a comprehensive strategy that changes the attitudes and behaviour of an organisation, with regards ongoing learning, and techniques for ensuring quality that also help to reduce costs and meet other requirements of organisations. Secondly, it is defined as maximising the satisfaction of consumers' needs – where these consumers are patients – or their families, friends and other interested parties. Here, quality management will help reduce the risk factors, such as losses, patients' dissatisfaction, and so forth. In terms of TQM, organisational performance may be improved across all sectors (Mashal and Ahmed, 2015). This definition also refers to TQM as a system of continuously improving quality in management methods and management philosophy. In addition, there are a number of key elements that can help organisations to enhance their management at a fundamental level and in the Jordanian context, they are as follows:

- The development and establishment of a multidisciplinary approach to enhancing conventional professional and departmental lines of management in Jordan's healthcare sector.
- The adoption of rules and regulations governing consumer satisfaction and the need to enhance quality in organisations.
- The empowerment of managers and clinicians to enhance improvement and analysis in an organisation (Sabella et al. 2015).
- An organisation's actions towards motivating the implementation of processes and satisfying patients' needs.

Even though there are numerous definitions of TQM, what really matters is for leaders to apply its basic concepts in an appropriate manner for its specific business conditions. Lua and Anderson (1998) and Gooran (2016) offer a simplified digest of the key mechanisms of TQM, from which a definition can be derived, as presented in Table 2.1, below.

Table 2.1: The main components of TQM (Lua and Anderson, 1998; Goorn, 2016)

Total (T)	Quality (Q)	Management (M)
Requires employee participation and teamwork	Customer-driven (internal and external)	Needs support from the leadership (Anderson 1998)
Everyone must develop a sense of quality ownership	Emphasis on continuous improvement	Establishes the organisation's aims and values
Involves every level and function in the company	Technical issues: training in skills and knowledge	Leadership becomes important
Applies system thinking	Human issues: encouraging innovation	Makes suitable changes in the organisational culture.

2.3.2 History of TQM

The origins of total quality practices may be traced back to the 1920s, when statistical theory was first implemented in the quality control of organisational products and services. According to Amui et al. (2017), the concept of quality management first emerged in Japan in the 1940s, but was later developed further in the United States. Since then, its scope has extended from product quality to management-oriented quality across all domains, whereby the notion of a TQM system has evolved. However, even prior to the Industrial Revolution of the 18th and 19th centuries, skilled craftsmen and manufacturers would inspect the work of others to ensure the quality of their products and services, in which they took considerable pride. As the Industrial Revolution progressed, however, production was completely transformed into a process involving interchangeable parts. This took a great deal of the control over the finished product out of the hands of the individual and gave rise to the need for quality control at a later stage of production.

After the conception of TQM in Japan, it spread all over the West, including Australia. In 1990s, the concept of TQM practices became a key component of many organisational activities, with most companies taking an active interest in enhancing industrial quality. However, as reported by Miroshnychenko et al. (2017), the term 'quality management system' was coined by the US Naval Air Systems Command to describe a Japanese-style management approach to improving quality. It is an umbrella methodology for continuously developing TQM practices. Moreover, it has helped to draw up sets of principles codes of practice for the following areas:

- Process style
- Behavioural science

- Logical and empirical analysis
- Analysis of non-quantitative and quantitative datasets.

Table 2.2: The evolution of the quality management system

Year	Implication
1920s	<p>The seeds of TQM were planted as a core component of the scientific management sweeping through US industry. Most notably, business management systems were breaking down planning processes into stages, in order to implement appropriate industrial action-planning techniques. This resulted in opposition from unions, as employees were deprived of a voice in the delegation of their functions and responsibilities.</p> <p>By the end of 1920, Hawthorne experiments were initiated to ascertain workers' productivity, which was a further reflection of their ability.</p>
1930s	<p>At the end of 1920 and beginning of 1930, Walter Shewhart began to develop a statistical analytical method of controlling quality management.</p>
1950s	<p>The implementation of an empirical analytical method of TQM was not yet familiar to industrial employees and so US statistician, Edwards Deming, taught methods of statistical analysis to control management quality amongst Japanese executives and engineers. This may be considered as the origin of the TQM system. Economist and statistician, Joseph Juran, taught the philosophy of maintaining managerial breakthrough and total quality. In the mid-1950s, Armand Feigenbaum published a book that clarified the concept</p>

	of TQM, paving the way for improvements in industrial quality.
1968	Early in 1968, Japanese organisational practices embraced the total quality approach. In addition, a synthesis of the philosophy of Kaoru Ishikawa, a chemical engineer who pioneered quality control, contributed to the ascendancy of Japan as a leader in the field of quality.
Current status	In the contemporary global competitive markets, TQM systems are associated with a broad philosophy and systematic approach to managing industrial quality. Quality-oriented award programmes and standards to promote the progress of total quality, such as the Malcolm Baldrige National Quality Award and the ISO 9000 series, have laid down specific processes and principles for TQM implementation

Abu Zeinab et al. (2017) claims that a statistical empirical approach to controlling management quality was first adopted at Western Electric Electrical Engineering Company in Chicago, where a separate inspection division was established. Pioneers of quality management, such as Edwards Deming, Walter Shewhart and Joseph Juran were all employees of the Western Electric Company at the time. After World War II, Japan decided to resume its quality planning activities by applying theories of management quality control. Over the next two to three decades, managers in the United States focused increasingly on production quality, marketing, and financial performance, whereas Japanese managers aimed at enhancing industrial quality at an unprecedented rate. As a result, Japanese products and services found greater favour on the market than their US counterparts. As a result, American companies suffered immensely, until the US business management sector realised the importance of quality in management and the nation underwent a minor industrial revolution in the 1980s (Sabet et al., 2016). Therefore, the 'quality of the management' was ultimately considered to be more important rather than 'the management of quality'.

2.3.3 Philosophy and Concept of TQM

In the contemporary context, the philosophy of quality management receives attention worldwide, across most international and domestic industries. As Basu (2017) observes, the notion of management quality has fundamentally evolved to change the way in which the global economy is measured. In addition, measurement in relation to the global economy can also increase demand in the market. The implication is that TQM can be employed worldwide as a core focus for all kinds of business. Sabet et al. (2016) suggest that this implication for strategy is intertwined with the continuous quest for excellence in industry, based on promoting the right attitudes and skills across all actors. In contrast, White et al. (2018) asserts that TQM will not only ensure the satisfaction of existing customers, but also of potential ones; even acting as a preventive measure against negative outcomes. From this perspective, effective TQM is defined as a wide-based set of activities within industry.

In terms of action planning for quality, Lobo et al. (2017) identify five main components of TQM philosophy:

- A focus on the customer
- Total participation
- Capacity to resolve problems in a systematic manner
- Service and product dimensions
- Process dimensions

This is elaborated upon in the diagram below (Figure 2.3), which illustrates the cyclic relationship between these elements:

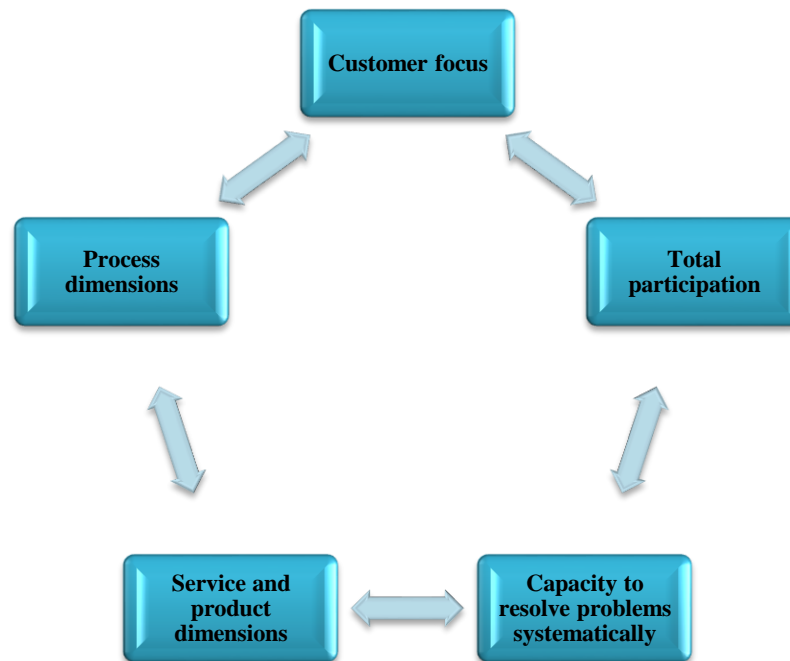


Figure 2.3: Core characteristics of a TQM-oriented management committee

It may be summarised from this discussion that a quality hierarchy facilitates two main processes: detection and prevention. As opined by Hameed and Abbott (2017), the detection quality approach is further subdivided into inspection and quality control, whereas the prevention approach is classified into quality assurance and quality management.

However, according to the quality cost theoretical model, there is no relationship between an emphasis on quality and increased cost. Despite this, Kanamori et al. (2016) cite a number of reasons for estimating the cost of quality:

- To determine the primary areas for cost reduction
- To recognise organisational opportunities to reduce customer dissatisfaction, along with the associated threat to product saleability
- To quantify the scale of any quality problems, thus facilitating communication between senior and middle management.

Hence, the philosophy underpinning TQM primarily focuses on enabling both internal and external quality-based practices to flourish, with respect to the correlation between the customer and the business, and the employer and employee, following Deming's 14 industrial principles (Lameijer et al., 2017).

Table 2.3: Elements of Deming's 14 industrial principles

Establishing consistency in the goals for improving services and products
Adopting a new philosophy of quality
Ceasing dependence on mass inspection as a means of achieving quality
Ceasing from applying business practices as a means of reducing total cost
Ensuring constant development in service and production systems
Instituting a training programme
Instituting and adopting leadership concepts
Eradicating fear
Breaking down internal barriers
Eliminating exhortations, slogans and targets for employees
Eliminating numerical organisational objectives and quotas for managing people
Removing any internal or external barriers that prevent employees from taking pride in their work
Encouraging self-improvement
Taking action to achieve transformation

TQM systems are integrated as key factors of quality in the optimisation of healthcare facilities (Gardner et al., 2018). As Sainidis and Robson (2016) have commented, this philosophy of healthcare quality and assessment comprises three main principles: customer focus, continuous quality improvement, and teamwork. Furthermore, in order to align with a healthcare quality system, the key concept of TQM practice may be considered as the consistent achievement of excellence, which is ongoing and requires effort from all those involved. In the field of healthcare philosophy, it may also be observed that the study of TQM has been divided into two further primary areas of practice: the process

approach to industrial business challenges, and commitment from the top management in healthcare organisations. Similarly, in the opinion of Shah et al. (2017) the philosophy of TQM in healthcare organisations is to support healthcare teams in a collaborative manner, as they are responsible for striving to develop internal as well as external processes of healthcare delivery. In short, a TQM programme requires all employees within the respective organisation to work towards the single goal of making continuous improvements to problem-solving, with the aim of improving quality, especially the quality of care provided, thereby achieving patient satisfaction (Talib and Rahman, 2015). Furthermore, TQM is directed towards ensuring that a healthcare organisation continuously seeks to exceed patients' expectations, and this is a long-term commitment (Kanamori et al., 2016).

2.3.4 Total Quality in Healthcare Institutions

The application of TQM to the healthcare sector was limited when it was first introduced in the late 1980s and this was due to a number of reasons, such as the major cash flow problems in hospitals and their cultural concerns. However, the most significant barrier to the acceptance of TQM in the healthcare sector was a practical one, relating to the lack of agreed standards for assessing deviation and noncompliance (McLean, 2006).

In a study by Mclean, (2006) in the United States, it was found that 98,000 Americans died every year; pointing to numerous medical errors made in the healthcare sector. McLean therefore called for the extensive use of TQM in healthcare settings. TQM was consequently introduced to reduce the rate of medical error, thereby enhancing the outcomes achieved by healthcare providers. TQM is applied to resolve hospitals' quality of care issues more efficiently and at grass roots level (International and Organizations, 2007, Talib et al., 2010).

The relationship between TQM and the Joint Commission International (JCI) lies in their similar standards, which centre on ensuring that all organisational functions and activities correspond to the aims of the hospitals concerned, and enhance patient satisfaction (Hashmi et al., 2004, Pomey et al., 2004). In summary, TQM, including the JCI and all other quality management systems, is utilised in frameworks that integrate all hospital functions and activities to achieve hospital goals and objectives, encourage continuous enhancement, and ensure patient satisfaction.

Quality in healthcare organisations differs from quality in other types of organisation, because the product, i.e. health care, is multifaceted, multidimensional and provided to clients on an individual basis. Interaction between the deliverer and consumer therefore has a significant effect on the perception of quality (Gupta, 1999). Total quality practices are first and foremost affiliated with a philosophy of quality, which is then translated into

healthcare. According to Whitelaw et al. (2017), healthcare systems are fundamentally complex organisations, with a complexity that is compounded in a service. It is therefore anticipated that optimal service provision is in some way deficient. Therefore, quality emerges as a primary issue in healthcare institutions, with the implementation of TQM practices as long-term industrial strategic initiatives. This type of long-term strategic initiative in an organisation is said to be positively related to healthcare services. Furthermore, in order to align with that concept, it is necessary to understand that TQM in the healthcare service sector should be closely affiliated to the leadership, whereby it requires a highly collaborative approach to its implementation. The reason for implementing TQM practices in healthcare systems is to enhance the position of an organisation in a competitive market, while delivering high-quality services, with the latest medical technology, and at an affordable cost.

However, to improve institutional quality, it is essential to establish a strong inter-relationship between organisational practices and customer requirements, using appropriate means of implementation. Moreover, in the opinion of Miroshnychenko et al. (2017), the effectiveness of TQM in healthcare facilities stems from the emerging inter-connectivity between the efforts of the management committee, and a focus on the customer, education and training, supplier quality management, employee empowerment and encouragement, and performance measurement, amongst other components. Furthermore, improving an institution's capacity to deliver satisfactory outcomes must be a matter of concern to any healthcare organisation. In a healthcare system, quality can be achieved, if the desired health-oriented outcomes are produced as a result of the service provided.

Two factors drive the introduction of TQM into healthcare organisations: "survival in a shrinking market", as out-patient care begins to overshadow in-patient care, "and the cost-containing pressures imposed by the payers of health care" (Talib and Rahman, 2015). Moreover, the successful implementation of TQM in the service and industry sectors has encouraged healthcare leaders to adopt it in hospitals (El-Tohamy and Al Raoush, 2015). Therefore, according to Alharthy et al. (2016), hospitals are applying quality management processes to meet the needs of their consumers, while the trend towards quality is growing day by day across the entire health sector. However, the healthcare sector implements TQM quite differently from industry. Zehir et al. (2012) give two explanations for this, citing differences between the healthcare sector and consumer product industries. Firstly, they refer to the Population Reports (1998), where it is stated that most patients are not sufficiently informed to be able to judge the technical quality of their healthcare. Secondly, the Population Reports (1998) emphasise that a patient's well-being, or even life, may

depend on the quality of the healthcare that they receive, so it is not merely a case of engaging and satisfying them.

Aside from the above, Øvretveit (2000) mentions a number of ways in which TQM can enhance quality in healthcare organisations. The first of these is through training in TQM approaches and principles, whereby TQM can help improve the efficiency and effectiveness of healthcare managers. This will also involve a change from a controlling management style to one that facilitates and empowers. This change in the role of the management will lead to managers taking control of quality in teams, with major implications for the majority of healthcare organisations. The second point made by Øvretveit (2000) is that TQM approaches involve multiple professions, where changes must be analysed and agreed upon in intricate care organisations. Moreover, McCarthy (1991) states:

“TQM is culturally a good fit with the hospital industry and a logical approach to a multidisciplinary service industry with a common focus on patient health. It induces cross-training and communication between departments better than other productivity tools. Other than an expenditure in time, TQM uses few other hospital resources”. (p.20)

Whitelaw et al. (2017) adds that another reason for hospitals embracing TQM is that patients are becoming increasingly well informed about their healthcare requirements, and regulatory bodies are more and more involved in healthcare provision. Therefore, hospitals are under pressure to control their costs, while also increasing their market share and enhancing the outcomes of patient care. TQM presents a possible solution to these challenges.

2.3.5 TQM in the Global Context

It is 30 years since the concept of quality management was first analysed in the global context (Anil and Satish, 2016). In 1995, the Journal of Decision Sciences published a paper on why the study of global quality management was deemed to be necessary, based on an outline of its components and definitions. More recently, global quality management (GQM) has been conceptualised and systematically integrated into the next phase of formulating TQM, associated with products and processes that enable greater organisational functionality and customer acceptance (A'aqoulah et al., 2016). Sabet et al. (2016) state that GQM needs to function as a motivating factor behind the management of quality worldwide and as a standard for evaluating quality management practices across nations.

However, when TQM is implemented on a global level, national culture should also be considered, in order to minimise conflict that could potentially affect productivity and

quality (Babatunde and Low, 2015). Moreover, as organisations cross borders, the implementation of TQM and a broader comprehension of its processes become more intricate. A possible outcome of this is that organisations compete internationally; developing their global competitiveness through a focus on quality (Gallear et al., 2012). As a result, the concept of GQM can function as a foundation for the 32 potential achievements defined in the global index of international competitiveness (Goetsch and Davis, 2014). Similarly, Oakland (2014) points to GQM being considered as the basis for business performance and international languages in the global context. Meanwhile, Goetsch and Davis (2014) argue that TQM, as a substantial component of the future of GQM in the 21st century, will be influenced by four key factors:

- (1) Increasing global competition
- (2) Rising customer expectations
- (3) Opposing economic pressures
- (4) New management methods

2.3.6 TQM in the Context of the Arab World

Many countries across the globe have a better rate of TQM implementation than is found in the countries of the Arab world (Mohammad Mosadeghrad, 2013, Abanumy and Alshitri, 2015). Indeed, the majority of Arab countries are unaware of TQM's potential to completely transform productivity, international competitiveness, and overall efficiency. However, there is some evidence that awareness of this potential is increasing (Lameijer et al., 2017). Two quite distinct trends are identified as the main factors enhancing understanding of TQM in the Arab world: fluctuation in petroleum and gas prices on the world stage, and globalisation (Gerges et al., 2017). The effect of these factors has been experienced across public, private and manufacturing sectors in the zone (Goetsch and Davis, 2014). Nevertheless, TQM in the Middle East, especially in Arabic countries, has hitherto received limited attention and so there is very little empirical investigation analysing the topic in this context (Shafiq et al., 2017). In fact, no formal TQM programme was recommended in any Middle Eastern country until 1990, where the subject was addressed at the Persian Gulf International Quality Conference in Bahrain (Lobo et al., 2019). Subsequently, from 1994 onwards, new studies started to emerge with regard to TQM implementation (Shafiq et al., 2017, Chugani et al., 2017). The above researchers have attempted to assess and reduce the challenges facing service and industrial organisations in the Middle East, thus promoting the frequency and amount of national empirical studies in this area.

Initially, Sinha et al. (2016) carried out an investigation that developed a national method of analysis in Qatar, designed to evaluate the effectiveness of TQM implementation nationwide. As a result, the effectiveness of TQM in the participating organisations was found to be incredibly low. Indeed, a full comprehension of TQM implementation in the Arab world has yet to be fully grasped in certain sectors, such as healthcare, even though a number of other domains have begun to explore it in recent years, especially in the service and industrial sectors. For example, Chapman and Al-Damen (2017) have assessed the standard and effectiveness of TQM in Jordan's industrial sector, whereby staff productivity in Jordanian organisations was found to be clearly improved after introducing structured TQM.

Additionally, a study was conducted in the Yemen; seeking to address the 33 identified challenges to implementing and understanding quality management (Habtoor, 2016), where it was found that lack state support, together with advanced TQM comprehension and change within an organisation's culture, were distinct problems that could negatively affect TQM implementation. Furthermore, another study, conducted in Saudi Arabia to assess the importance of elements of TQM, concluded that it was imperative to provide formal education and training in quality management (Alhwairini and Foley, 2012).

2.3.7 TQM in Jordan

Despite the many advantages and widespread adoption of TQM worldwide, what has been observed in the Middle East is a slow adoption rate for TQM processes. As such, Jordan is currently endeavouring to improve its quality management in different sectors (Ross (2017), namely banking, hospitality, and education, aside from ordinary business and manufacturing industries.

However, the health sector, especially hospitals, are somewhat different in the types of personnel and end-users involved, given that high quality services are a prerequisite of treatment. For this reason, TQM may be described as crucial to the health sector worldwide. Jordan's hospitals provide a wide range of specific services, where consumers expect high quality. In the healthcare sector, TQM practices are therefore aimed at attracting and retaining staff and customers, as well as keeping abreast of the competition (Hassanain et al., 2017). According to Jordan's Healthcare Accreditation Council, professional healthcare activities have in fact been improved to define the responsibilities of quality coordinators, as well as promoting the importance of quality in health facilities. In addition, a US Agency for the international development of healthcare projects in Jordan was initiated in 2008, in order to maintain a strong relationship with Jordan's Ministry of Health (Shafiq et al., 2017). Recently, several Jordanian hospitals have adopted TQM processes, in a bid to enhance the quality of care that they deliver. Moreover, as stated by Waring et

al. (2016), this management procedure has been crucial over recent years, as there is greater focus on the quality of services and products delivered by businesses and other types of organisation. Certain factors are essential to consider for proper development, utilising quality management strategies, as listed below:

- Active and visible assistance made available from clinical to management level, so that the leadership are included and continuous improvement in quality is ensured.
- A focus on enhancing objectives and goals.
- The elimination of unnecessary deviation.
- The revision of strategies by personnel management.

The literature discussed above relating to TQM practices in Jordan indicated that although a few studies have been carried out on TQM in Jordan’s service sector, limited studies have been conducted on the topic of TQM in a healthcare setting (Al-Zu’bi and Judeh, 2011, Al-Shdaifat, 2015).

2.4 The Jordanian Context

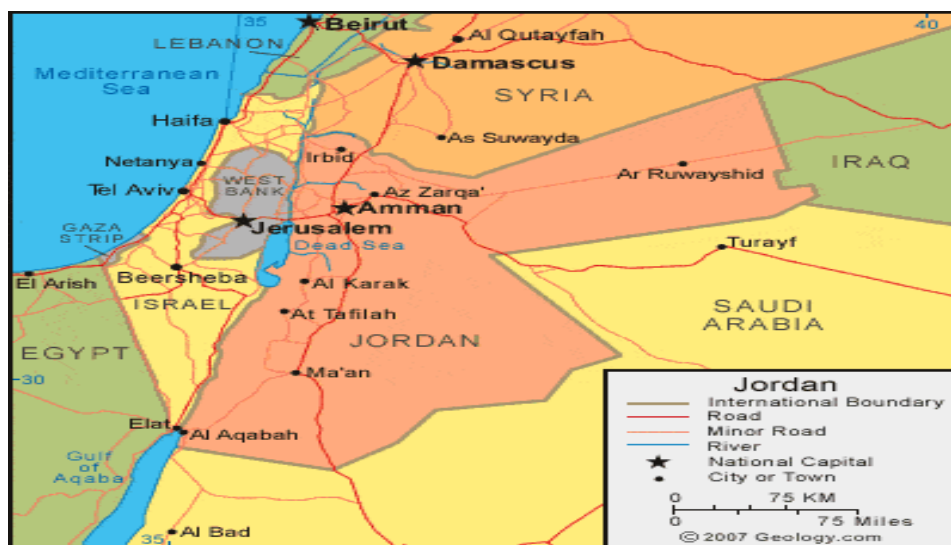


Figure 2.4: Health map of Jordan (WHO, 2019)

2.4.1 Jordan: General Background

2.4.1.1 Religion

Jordan is an Arab nation, located on the east bank of the Jordan River. It is an Islamic-majority state, although the population is multi-faith, with people of all religions residing on the territory; practicing their religion without any issues (see Figure 2.5). Out of this population, 92% are Sunni Muslims and 1% are Sufi or Shia Muslims. Moreover, Eskin et al. (2017) clarify that the cities in the south of the country have the largest Muslim populations in Jordan. Aside from Muslims, Jordan has a Christian minority population,

amounting to 6%, with a further 1% representing other religions. Jordan's Christians tend to favour Amman and the Jordan Valley to settle in. In addition, Salehi-Isfahani (2016) reports that Jordan's Christians are neither Catholic nor Orthodox, as numerous missionary groups have settled or operated in Jordan, both historically and in modern times. For example, there are several old churches in the country, such as Mount Nebo, Bethany beyond the Jordan, Altar of Incense and many others.

Prayer and other services are offered at Muslim places of worship, namely the mosques, which also minister to non-Muslims. The administration of the mosques is in the hands of the Imams, who play a crucial role in all Muslim countries. For example, El-Katiri and Fattouh (2017) state that Imams serve as political leaders in small rural communities, which they lead according to their own perspectives.

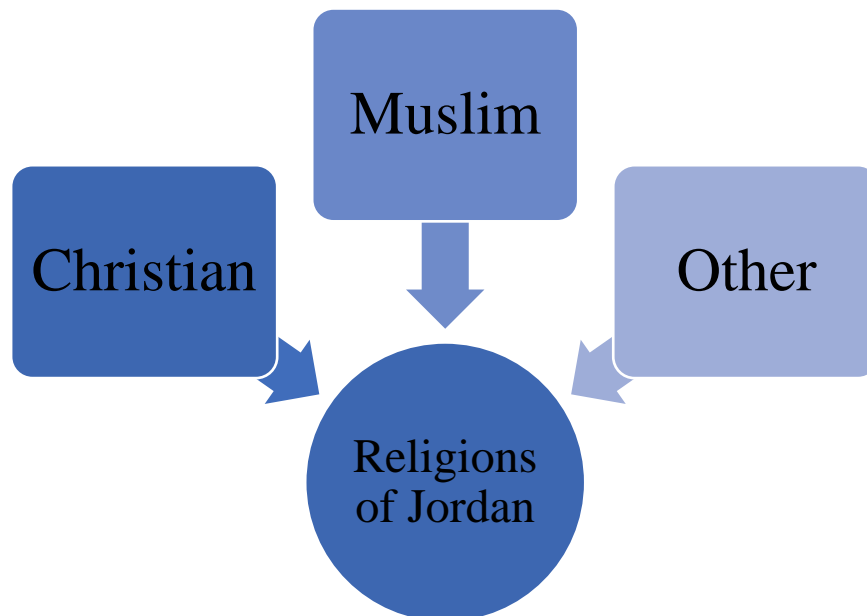


Figure 2.5: Jordan's religious diversity

2.4.1.2 Culture

Jordan's culture incorporates various crafts, such as mosaic, ceramics, weaving, needlework, and jewellery-making, as well as music, history, its cuisine, and so forth. Vranken et al. (2016) state that Jordan is famous for its handicrafts, especially in the tourist sector. Amman has a huge number of shops that sell these items to tourists and locals alike. In addition, there is great diversity in the ceramics and mosaics that are produced across Jordan Asante et al. (2016), although the production of these goods has deep roots throughout the Levant.

Similarly, Jordan is famous for its woven goods, produced by villagers using both upright and ground looms. Aside from this, traditional Arabic music, based on a five-tone scale,

plays an important role in the nation's everyday life (Aizenman et al., 2016), whereby traditional instruments, such as the *oud*, is a common feature of Middle Eastern music. Finally, Bormann et al. (2017) describe Jordanian cuisine as consisting of cheese, grains, fresh and dried fruit, vegetables, chicken, lamb and other nutritious and wholesome ingredients. For example, Jordan's national dish is *mansaf*, which is made of lamb cooked with fresh herbs and spices.

2.4.2 Jordan's Economy

Jordan's overall score for economic freedom was 64.9 in 2018, which makes it the 62nd freest economy in the world. However, according to Saeed (2017), its position had declined by 1.8 points since 2016 and this was indicated by government spending, right of property indicators and fiscal health. Nevertheless, Jordan is still ranked among the top five Middle Eastern countries in this domain. Conversely, Mehtap et al. (2017) point out that the Economic Council of Jordan has launched various initiatives to boost its economic growth, with the help of economic reforms. Funding for these reforms come from both the private and government sectors, for the purpose of developing their business environment. Moreover, the Jordanian government intends to continue its fiscal consolidation, which includes measuring increases in revenue and reviewing the tax collection process.

Jordan has been experiencing some progress in its labour market, as well as greater freedom in its economy, judicial system and political influences. As stated by Fiddian-Qasmiyeh (2016), the country is referred to as the Hashemite Kingdom of Jordan, having gained its independence from the United Kingdom in 1946. However, the conflict in Syria and Iraq have affected Jordan's economy and what is more, there are approximately 700,000 Iraqi and Syrian refugees in the country, with only limited resources to meet their needs (Gerges et al., 2017)

2.4.3 Education in Jordan

Jordan's education system has been obliged to deal with a very high rate of population growth, as from the year 1920. Consequently, the country has many schools, colleges, universities and other specialist educational institutions. Warrick (2016) observes that Jordan has developed its education system comprehensively to a high standard, thus fostering the development of its human capital. At present, there are 1493 private schools, 2787 government-funded schools, 19 universities, and 48 community colleges. Moreover, Caputo et al. (2016) highlight the fact that their education system is linked with all their development plans for the nation.

Therefore, Jordan is a country that is rapidly extending its educational provision to rural areas and less affluent citizens. Moreover, Selby and Tadros (2016) point out that

education in Jordan is compulsory and free of charge for all children of primary and secondary school age, up to the age of 15. The country has observed more than 95% educational enrolment at its schools and colleges, indicating an improvement from previous levels. Finally, Jordan has more specific policies for its education system, whereby more time is dedicated to basic education than to higher education (Musallam et al. (2016), which has ultimately boosted the rate of educational enrolment and the level of literacy amongst the general population. Jordan's education system meets the relevant international standards and the approach adopted has put it in a relatively advantageous position.

Nevertheless, Jordan does faces a number of issues in its education system, in that the nation's youth is demanding ongoing expansion in this area (Iemmi et al. (2016). Moreover, they expect and need high quality teaching and facilities. In addition, there is a deficit of vocational skills in the labour market, as most of the population aspire to academic education.

2.4.4 Health in Jordan

Jordan provides high-quality healthcare for its citizens, and this is mainly available in Amman. In accordance with Molnar (2017), 68% of the population of Jordan use government facilities for healthcare, while 55% have health insurance. These percentages include all ages, as revealed in the most recent census in 2017. Furthermore, Arar (2016) states that there are approximately 312,000 children receiving healthcare services free of charge by Royal Decree. However, the rate of health insurance cover has dropped to 63% for Jordanians, with uptake of 52% of the entire population. Nevertheless, one study on health insurance cover has revealed extensive duplication of health insurance and this may be considered as a burden imposed by the Jordanian government to provide insurance to non-Jordanians in accordance with the Department of Statistics. In contrast, Bush and Gao (2017) argue that nine out of every 10 Jordanians have medical and life insurance, usually relating to military and public health insurance. Moreover, this rate is higher in Tafleeh and Karak than in Amman or Zarqa. However, as stated by Hinnebusch (2016), the Jordanian government spends 9.3% of its GDP on healthcare. Aside from this, the World Bank has ranked Jordan among the top five global destinations for medical tourism. The outcome of this investment and activity is that fewer than 0.1% of the population have been infected by human immunodeficiency virus and the country has been free of malaria for several years.

2.4.5 Jordan's Healthcare System

As discussed above, Jordan's healthcare system (see Figure 2.6) has developed with greater relevance to the needs of the nation, compared to most other Middle Eastern countries. Antillón et al. (2017) observe that Jordan has a relatively advanced healthcare. Moreover, its healthcare system is divided into two sectors: private and public. With regard to public healthcare institutions, there are 1245 healthcare centres operated by the Jordanian Ministry of Health, 27 of these being hospitals that provide 37% of all hospital beds across the country. All kinds of preventive, therapeutic, organisational and management services are provided in Jordan's public and private health sectors. Health insurance is also available for Jordanian citizens and the Jordanian Ministry of Health delivers primary, secondary and tertiary care (Secretariat, 2016). However, Yusuf et al. (2016) mention 11 hospitals that are operated by an arm of the military services, known as the Royal Medical Services. These Services account for 24% of all hospital beds in Jordan, in institutions that generally offer secondary and tertiary care. The Royal Medical Services organisation is accountable for providing healthcare, with inclusive medical insurance for military and security employees. It also sustains a major political role by contributing to the provision of wellness services in disaster areas and conflict regions.

Conversely, in the private sector, 56 hospitals provide 36% of the total number of hospital beds in the country, along with primary, secondary and tertiary services. Moreover, Jordan hosts a number of non-profit organisations, such as the United Nation Relief and Works Agency (UNRWA), which is responsible for providing a healthy living environment for refugees in Jordan. Certain other healthcare centres are of particularly high quality like the King Hussain cancer centre, which offers cancer treatments and works towards reducing the incidence of cancer in Jordan. In fact, it has a world class reputation as one of the best of its kind. Despite the many options for health provision, Khan et al. (2016) claim that most of Jordan's inhabitants have health insurance from an early age.

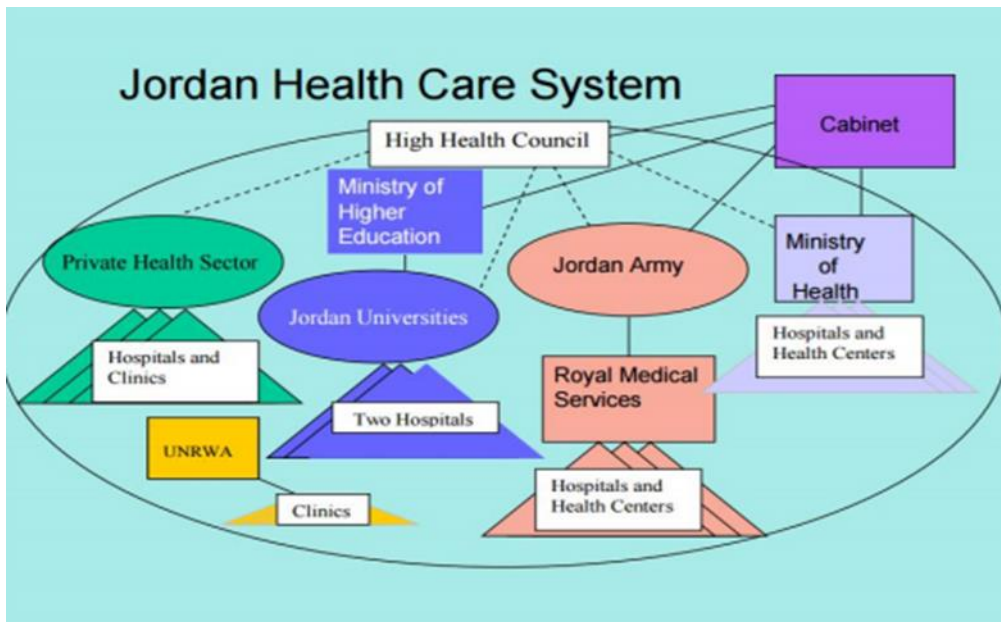


Figure 2.6 : Jordan’s healthcare system (WHO, 2018, p.24)

2.4.6 Quality Trends in Jordan

Quality trends are maintained to a high degree in Jordan across several areas of activity. Moreover, as stated by Sandikci et al. (2016), Jordan’s healthcare system offers high quality treatments and care to its citizens and incomers. The nation’s hospitals have also sought and obtained domestic and international accreditation, with Jordan’s healthcare accreditation council being itself accredited by the International Society for Quality in Health Care (ISQ), which endeavours to align healthcare systems with international standards. Moreover, Lawry et al. (2017) specify that Jordan has doctors who perform to a high standard and are proficient in the English language, with the availability of most pharmaceutical drugs and medication. In addition, emergency treatment is free of charge in Jordan, providing that hospitalisation is not necessary. In fact, over the past few years, Jordan has made some remarkable achievements in developing its healthcare services(Saleh et al., 2017).

A`aqoula (2016) point out that the cost of medical treatment is generally 10-30% lower than in the United States and what is more, the quality of healthcare delivered in Jordan is high. Consequently, the healthcare service industry has been advantageous to the Jordanian economy by offering excellent services at a reasonable cost.

2.5 Conclusion

What may be concluded from this chapter is that TQM should ideally be applied in all organisations, as those already implementing it have demonstrated improvements in their

services and products. Moreover, these improvements have been directly connected with levels of customer satisfaction, thus leading to a competitive advantage. TQM is a key factor in being able to provide patients with consistently excellent services. In terms of TQM in the Middle East, it was found that countries in this zone have been slow to adopt TQM; it has been inferred in some of the previous work in this area that religion and culture present certain barriers to TQM implementation in the Middle East.

In light of the above, it was deduced that while Jordan is a Middle Eastern country, it is one that has nevertheless attempted to improve its quality management processes in a relevant way. Jordan is predominantly Muslim, although there are other religions practiced in the country. Moreover, the country's different regions are characterised by diverse cultures. In addition, Jordan generally has a stable economy and a healthcare system that has embraced quality trends. In fact, most of Jordan's healthcare institutions are well-established and apply the latest quality principles to the treatment of patients. Likewise, Jordan has widening access to education, where quality is acknowledged as a key component of education provision. The next chapter presents a scoping review and offers more detailed considerations of TQM implementation and the study context.

Chapter 3 Scoping Review

3.1 Literature Review

The previous chapter presented an overview of the literature concerning TQM implementation in healthcare settings. However, limited studies are available on the barriers and facilitators of TQM implementation in healthcare settings, particularly from the perspective of managers, nurses and doctors. Thus, in this current scoping review of the literature, attention will be given to areas of TQM that have been researched in significant depth. This body of evidence is fundamental to an exploration of the barriers and facilitators of TQM implementation. As such, it will be given close consideration here.

The aims of this review are therefore:

- 1- To explore existing evidence of the barriers and facilitators of TQM implementation.
- 2- To explore the methodologies and research methods employed in the studies included in this review.
- 3- To identify gaps in the literature.

The review question formulated to guide the strategy for searching the literature reads as follows: What are the barriers and facilitators of implementing total quality management (TQM) in a healthcare setting?

3.1.1 Method of Conducting the Literature Review

Due to the paucity of evidence that evaluates TQM from the perspective, experience and understanding of staff in Jordan, the review question and aims of this literature review were not appropriate for a systematic review. Thus, the researcher applied a scoping review method to comprehensively explore studies of relevance to TQM implementation in a healthcare setting, and to identify gaps in the available literature. According to Arksey and O'Malley (2005), a scoping review can be employed to map the key concepts underpinning a study area, as well as the key sources, and the types of evidence that exist in the literature. Moreover, it elucidates the working definitions or conceptual boundaries of a topic (Anderson et al., 2008). Thus, a scoping review is deemed suitable for emerging evidence that it is still unclear, whereby questions can be modeled and meaningfully addressed (Arksey and O'Malley, 2005).

Furthermore, the importance of scoping reviews to evidence-based practice rests in their capacity to facilitate a broad examination, aimed at identifying research gaps in the existing evidence. This is achieved by drawing conclusions from the available literature on the barriers and facilitators of TQM implementation in healthcare settings, ascertained from

previous studies or pertinent systematic reviews (Davis et al., 2009). Table 3.1, below, shows the Joanna Briggs Institute (JBI) framework for carrying out a scoping review.

Table 3.1: Scoping review framework (JBI, 2015)

N Steps in Conducting a Scoping Review	
1	Identifying the research question
2	Identifying relevant studies
3	Study selection
4	Charting the data
5	Collating, summarising and reporting the results
6	Consultation (optional)

3.1.2 Identifying Relevant Studies

The question formulated to guide this scoping review was in three manageable parts, referring to population, concept and context (PCC); corresponding to elements of the inclusion criteria (Algozo et al., 2016).

- **Population:** managers, nurses and doctors.
- **Concept:** TQM implementation
- **Context:** healthcare, service and industrial settings.

3.1.2.1 Search Strategy Employed in the Literature Review

The search strategy adopted for this scoping review comprised three stages, as outlined in Table 3.2, below.

Table 3.2 : Stages of the search strategy

Stages	Description
Stage One	A limited initial search of Google and Google Scholar was undertaken, using keywords such as 'Total Quality Management', 'hospital', 'nursing', 'managers', 'doctors', 'Jordan', 'healthcare', 'barriers', and 'facilitators'. This was followed by an analysis of the text words included in the titles of the studies and abstracts, and the index terms used to describe the article.
Stage Two	A further search, employing all recognised keywords and index terms across all the databases that were included – namely MEDLINE, CINAHL, Embase, and PubMed - was carried out from December 2016 to February 2017; giving specific attention to the subject headings in each case. No

time limit was imposed on the review. Common abbreviations and alternative spellings (British or American English) were considered in relation to the topic during the search. The terms used in the search strategy were linked by the Boolean operator, 'OR' between each element of PCC and the key findings of each PCC element were combined with 'and' to obtain the final number of articles, titles and abstracts.

The search was limited to studies published between 2008 and 2016. In 2008, the Jordanian Health Care Accreditation Council (JHCAC) was created as an independent organisation to ensure that hospitals meet the requisite standards and demonstrate a high level of service quality. Jordan's hospitals subsequently launched their agenda for change, with the aim of creating a modern and sophisticated accreditation process in primary and secondary care. During the search, various terms and keywords were used, including 'TQM', 'hospital management', 'TQM in hospitals' and 'implementation of TQM in healthcare'. Moreover, quotation marks (" "), alternative words, and synonyms were also used to search for relevant literature. The investigator utilised the literature on implementing accreditation and QMSs in hospitals to identify the barriers and facilitators that impact on the implementation of TQM standards, because of similarities between the principles underpinning TQM and accreditation standards (Joint Commission International), as elucidated in Chapter One, section 1.7 and detailed in Table 1.1. However, the researcher found that some of the literature did in fact refer to the implementation of TQM standards. This list of studies from the literature reviewed is given primary importance and is listed in Table 3.5, Table 3.6, Table 3.7 and Table 3.8

Stage Three A total of 537 studies were found. The reference lists and bibliographies of all the studies retrieved were screened against the eligibility criteria outlined in this review, so as to identify pertinent studies.

3.1.3 Eligibility Criteria of This Review

Table 3.3: Eligibility criteria of this review

Criteria	Inclusion Criteria	Exclusion Criteria
Types of participant	<ul style="list-style-type: none"> • Managers • Nurses • Doctors 	<ul style="list-style-type: none"> • Patients • Customers
Types of intervention	Total quality management (TQM)	Other management strategies
Outcome measures	Barriers and facilitators of TQM implementation in hospitals	Any outcome that is unrelated to barriers and facilitators of TQM implementation in hospitals
Study design	All kinds of study method published in the English and Arabic language	Any study that does not provide clear information on the barriers and facilitators of TQM implementation
Language	English and Arabic	Other languages and translations
Paper available	Full paper available	Paper not available in full

3.1.3.1 Screening the Studies

According to the criteria for eligibility (Table 3.3), the full dataset of 537 studies was imported into the bibliographic software package, Endnote. When all duplicates had been removed, an on-line software package was implemented, designed to screen and extract study data for scoping reviews (see Figure 3.1). The articles were screened on two levels.

3.1.3.2 Level 1 (Screening Titles and Abstracts)

All studies were evaluated for eligibility, according to their titles and abstracts. The researcher double-screened these titles and abstracts, with the assistance of two other Ph.D. students, who screened all the studies independently. Any areas of conflict were resolved via a consensus. The screening questions were based on the inclusion and exclusion criteria described in Table 3.4, below. As long as there was one 'YES' in this list of criteria, papers were retained at this stage of the screening process.

Table 3.4 : Inclusion and exclusion criteria

1. Is this about TQM at all?	Yes/No/Can't tell (Exclude if No)
2. Is this about the barriers to TQM implementation?	Yes/No/Can't tell (Exclude if No)
3. Is this about facilitators of TQM implementation?	Yes/No/Can't tell (Exclude if No)
4. Is this about the factors influencing TQM implementation?	Yes/No/Can't tell (Exclude if No)
5. Is this about the reasons for TQM failure?	Yes/No/Can't tell (Exclude if No)
6. Is this about the TQM of a surgical, medical or diagnostic procedure?	Yes/No/Can't tell (Exclude if No)

3.1.3.3 Level 2 (Full paper screening)

Full paper screening was also conducted by the researcher and two other Ph.D students. Full studies were reviewed and a decision made to include or exclude them using a coding sheet which each coder completed in order to demonstrate why they had included/excluded each study. Studies were included if they were:

- Published between 2008 to 2016
- Address the barriers and facilitators of the TQM implementation
- Identified the success factors that are required in the implementation of TQM
- Examined TQM implementation in healthcare, service and industry organisations using an empirical approach (quantitative, qualitative or mixed methods)
- Identified reasons for TQM failure

- Published in the English and Arabic language; and
- Full paper available.

Studies were excluded if they were:

- Exclude any articles that not published between 2008 to 2016.
- Not related to TQM
- Not data a driven study e.g. editorial, commentary, opinion piece, letter; and
- The full paper was not available.

3.1.4 Charting the Data

Figure 3.1 displays a flow chart of the literature-scanning process and the findings. Eleven studies were finally identified as appropriate for inclusion in this scoping review.

The data extraction process in scoping reviews is referred to as 'charting' and the results derived provide the reader with a logical and descriptive summary of those collated findings that most closely align with the review question, which guides the scoping review (Peters et al., 2015). The data extracted in this review were collected and are presented in Table 3.5, Table 3.6, Table 3.7 and Table 3.8 and a charting table. The researcher recorded the following information:

- Author(s)
- Area
- Study methods
- Aim
- Significant findings relating to the review question.
- The review followed a narrative synthesis.

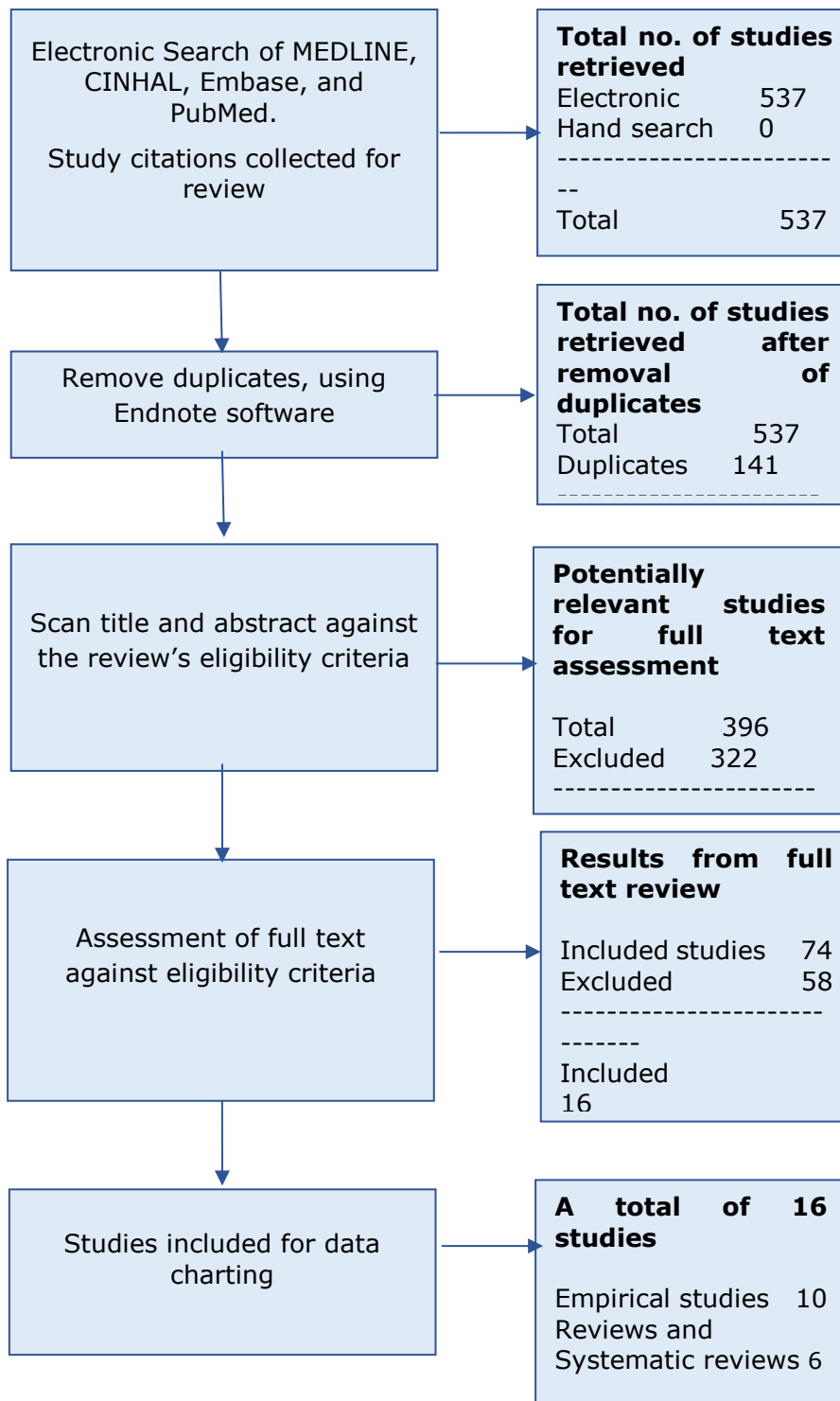


Figure 3.1: Flow chart of the literature-scanning process and its results

Table 3.5 : Summary of included quantitative studies

Quantitative Studies					
N	Authors	Area	Design	Aim	Finding
1	Subrahmanya Bhat and Rajashekhar (2009)	Industrial setting in India	Quantitative	To identify the barriers to TQM implementation, in order to make them known to managers in India's industrial sector	<ul style="list-style-type: none"> • Employees are resistant to change • Lack of planning for quality • Lack of resources • No benchmarking of other companies' practices
2	Al Tasheh (2013)	Service sector Education	Quantitative	To introduce the obstacles to TQM implementation in higher education institutions in Kuwait	<ul style="list-style-type: none"> • Lack of highly qualified professionals in the field of TQM implementation • Lack of knowledge of methods of continuous improvement
3	Shameer and Sing (2013a)	Industrial sector	Quantitative	To determine some of the barriers to implementing TQM in a population of medium to large Mauritian food manufacturing companies (MFMC),	<ul style="list-style-type: none"> • Employees' resistance to change • High staff turnover

				which were then compared with those identified in the Indian and US manufacturing sectors	
4	Alsughayir (2014)	Service organisation in Saudi Arabia	Quantitative	To investigate barriers to the implementation of TQM, as experienced by service organisations in Saudi Arabia	<ul style="list-style-type: none"> • High staff turnover • Resistance to change among employees • Lack of understanding of TQM • Low motivation among the management

Table 3.6: Summary of included qualitative Studies

Qualitative Studies					
N	Authors	Area	Design	Aim	Finding
5	Almuedo-Paz et al. (2012)	hospital	Qualitative	To describe the participation of health professionals as key agents of the successful definition of skills manuals to support professional accreditation in Andalusial (Spain)	<ul style="list-style-type: none"> • The main facilitators of the participation of health professionals in preparing accreditation manuals are as follows: involving the managing authorities from the outset; involving the stakeholders (medical societies, professional associations and clinical leaders); inclusiveness; the use of scientific evidence to support the development of the manuals, and the use of workgroups and committee co-ordinators to support the use of on-line tools. • The most significant barriers to this participative process were found to be: initial scepticism about participation; informal

					leaders emerging on some committees, which biased the outcome; variability across the committees, and excessive effort required by some participants.
6	Schmaltz et al. (2011)	Hospitals	Qualitative	To examine the association between Joint Commission accreditation status, and absolute measures of and trends in hospital performance, with regard to publicly-reported quality measures for common diseases	<ul style="list-style-type: none"> The hospitals accredited by the Joint Commission performed better than their uncredited counterparts on most of the publicly-reported measures. Accredited hospitals were found to have larger gains over time and were significantly more likely to demonstrate high performance in 2008 on 13 out of 16 standardised clinical performance measures and in all summary scores.
7	Hinchcliff et al. (2012)		Qualitative	To gather views of key Australian healthcare stakeholders, regarding the range of factors that influence the	<ul style="list-style-type: none"> Implementation is more likely to be successful when accreditation programmes and their standards are suitable and reliable, positively received by healthcare

				implementation of three Australian accreditation programmes in primary care, particularly the aged and acute sectors	professionals and organisations, and supported by regulatory initiatives. The alignment of accreditation with other regulatory initiatives and incentives is also supportive.
8		Hospitals	Qualitative	To compare self- and peer-evaluations of accreditation and to describe the early results of an accreditation programme	<ul style="list-style-type: none"> The programme of professional accreditation had the potential to describe, monitor and improve clinical organisational performance in internal medicine.

Table 3.7: Summary of included mixed methods studies

Mixed Methods Studies					
N	Authors	Area	Design	Aim	Finding
9	Abdullah Hokoma et al. (2010)	Industrial sector	Mixed methods	To investigate the present status of TQM implementation, just-in-time (JIT), and manufacturing resource-planning (MRPII) in Libya's iron and steel industry, and the management implications for this industry	<ul style="list-style-type: none"> • Lack of commitment from the top management • Insufficient planning
10	Gherbal et al. (2012)	Industry sector	Mixed methods	To identify critical success factors (CSFs) that affect the implementation of TQM in the Libyan construction industry	<ul style="list-style-type: none"> • To give reliable and valid TQM dimensions, namely organisational management, communication to improve quality, training, and development • Employee involvement and recognition • Culture.

Table 3.8 : Summary of included review studies

N	Authors	Area	Review	Aim
11	Wardhani et al. (2009)	Healthcare	Systematic review	<ul style="list-style-type: none"> To identify the problems and facilitating factors in the implementation of a hospital quality management system (QMS), via a systematic review
12	Talib et al. (2011b)	Healthcare	Systematic review	<ul style="list-style-type: none"> To identify a set of TQM practices, which would be helpful and applicable for resolving problems in a healthcare setting
13	Awuor and Kinuthia (2013)	Healthcare	Systematic review	<ul style="list-style-type: none"> To assess the existence of TQM systems in selected private hospitals in Nairobi, Kenya
14	Albejaidi (2010)	Healthcare	Systematic review	<ul style="list-style-type: none"> To discuss the healthcare system in Saudi Arabia, with an emphasis on the level of TQM development, structure and implementation
15	Mohammad Mosadeghrad (2013)	Healthcare	Systematic review	<ul style="list-style-type: none"> Lack of a quality-oriented culture Insufficient training Inadequate resources
16	Zarifraftar and Aryankhesal (2016)	Healthcare	Systematic review	<ul style="list-style-type: none"> Organisational challenges have been classified into: (i) management and organisation; (ii) human resources; (iii) financial and equipment resources, and (iv) quality improvement. The most frequently stated challenges are financial incentives and the perception of accreditation standards, while most papers mentioned an independent or dependent accreditation entity; development of standards; management and organisation, and human

				resources as the main challenges. Hence, both the programme and organisational challenges should be considered by policy-makers, before they establish accreditation systems.
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3.1.5 Characteristics of the Included Statistics

From the year December 2016, up until February 2019, the review returned no studies. The quality of the available literature will be discussed here in relation to four key areas within the included studies: the study aims, participants, methods, and key evidence.

3.1.5.1 Study Aims

The aims and scope of the studies were found to differ in the review. All of the studies were dedicated to identifying the factors of failure in the application of TQM and accreditation in the industrial, service and healthcare sectors (for example, (Mohammad Mosadeghrad, 2013, Talib and Rahman, 2015, Albejaidi, 2010, Awuor and Kinuthia, 2013, Wardhani et al., 2009, Almuedo-Paz et al., 2012). Two of the studies were aimed at identifying a set of TQM practices, which would be helpful and applicable for resolving problems in healthcare settings (Mohammad Mosadeghrad, 2013, Talib et al., 2011b). Two studies were designed to evaluate an organisational development programme (TQM) (Subrahmanya Bhat and Rajashekhar, 2009, Gherbal et al., 2012). Meanwhile, one study sought to identify employees' perceptions of the extent to which quality programmes were implemented in their organisations, and to explore whether or not they perceived any problems that had prevented the successful implementation of the TQM programme (Kozak et al., 2008).

3.1.5.2 Participants

In the studies included in this review, managers were the main cohort sampled. Two papers had recruited their participants from different levels of management: administrative, executive and operative (Subrahmanya Bhat and Rajashekhar, 2009, Alsughayir, 2014), while two other studies had recruited their participants from different departments and specialisations (multidisciplinary studies) (Al Tasheh, 2013, Shameer and Sing, 2013b). In addition to differences in the types of participant selected for these studies, the sample sizes also varied (ranging from 10-220), with only two of the studies mentioning their method of calculating sample size (Al Tasheh, 2013). When different sample sizes were used, it was difficult to match the types of sample and draw a consistent conclusion. Moreover, some of the samples included just one setting, whilst others included two or more. For example, Subrahmanya Bhat and Rajashekhar (2009) approached participants in 20 organisations, Abdullah Hokoma, Khurshid Khan and Hussain Abdullah Hokoma et al. (2010) sampled participants from 10 general organisations in Libya, and Alsughayir (2014) sampled just two Saudi organisations.

3.1.6 Collating, Summarising and Reporting the Results

The studies included here were carried out in service, industrial and healthcare settings, with the same aim of identifying the barriers to TQM and accreditation implementation in the respective organisations. However, most of these studies were carried out in service and industrial settings, with just a few in healthcare. Furthermore, the included studies were conducted in developed countries (the USA, European countries and Australia), as well as developing countries (Iran, Malaysia, India, Saudi Arabia, Kuwait and Thailand). Nine of these were empirical studies from the service and industrial sectors, while two systematic reviews were conducted in healthcare settings.

Based on the included literature, several barriers were found to face organisations in developed and developing countries, as they endeavoured to implement TQM. However, these studies also demonstrated specific ways of facilitating successful TQM in organisations. Successful TQM implementation requires a thorough understanding of the barriers that threaten to impeded its progress, as well as of the critical success factors for overcoming these barriers (Alsughayir, 2014).

Out of the 16 studies included in this scoping review, nine were centred on the barriers to TQM implementation in the service and industrial sectors (for example, Subrahmanya Bhat and Rajashekhar, 2009; Al Tasheh, 2013; Shameer and Sing, 2013). The remaining five indirectly addressed the impact of accreditation on services and the barriers to its implementation by focusing on other aspects of such programmes. Meanwhile, Hinchcliff et al. (2012) attempted to analyse the application of accreditation in three different countries; concentrating on the health policies and regulations underpinning the introduction of this intervention, and the funding available for it in each country. Additionally, the main purpose of a study conducted by Zarifraftar and Aryankhesal (2016) was to compare self-evaluation with the subsequent surveyors' evaluation. These included studies helped shed light on some of the defects in the process and emphasised the gaps observed while preparing the survey and making on-site visits (Awuor and Kinuthia, 2013).

Another study conducted by Hinchcliff et al. (2012) in Australia described the relationship between receiving a quality certificate and the organisational culture. They also aimed to ascertain the attitudes of healthcare professionals towards this change. In so doing, they identified the importance of a cooperative culture in directing the attitudes of professionals towards change. Meanwhile, studies conducted by Mohammad Mosadeghrad (2013) and Talib et al. (2011b) evaluated the development and implementation of TQM standards in healthcare, using a systematic review. However, they found just one study that outlined the implementation process by identifying several enablers and barriers, whilst all the other studies focused on the impact of standards on services.

Therefore, a limited number of studies have explicitly tried to identify the barriers and facilitators that contribute to or inhibit the successful (or unsuccessful) implementation of TQM programmes in hospitals. Thus, discussing certain common barriers in these studies is likely to be useful for this current research, as a means of exploring and gaining a deeper understanding of the barriers and facilitators of TQM implementation in Jordanian hospitals.

All the studies included exclusively identified barriers to TQM implementation. These will therefore be described below.

3.1.6.1 Lack of Teamwork

In hospitals, a team should be composed of employees from each department, with the capacity to improve the quality process. Moreover, one of the key aims of teamwork and participation is that they should resolve quality-related issues promptly and these teams are sometimes referred to as 'quality action teams' (Talib et al., 2011a). Therefore, teamwork and staff engagement are considered necessary in healthcare organisations, as they require collaboration between all related departments. Accordingly, team spirit is deemed to be a key factor in improving working conditions and so, ignoring this point can lead to failure. It may therefore be considered Lack of teamwork is a barrier to quality initiatives, as demonstrated by Mosadeghrad (2013).

According to the studies included in this scoping review, employees' roles have changed to accommodate problem-solving. Furthermore, a study by Zarifraftar and Aryankhesal (2016) argue that the most effective method of utilising the talents and ideas of all employees is through teamwork. This will help overcome the barriers to TQM implementation and provide a solution to existing problems. The formation of proper quality enhancement teams is important for an organisation to achieve TQM success (Talib et al., 2011a).

3.1.6.2 Organisational Culture

A number of studies have investigated the barriers leading to the unsuccessful implementation of TQM in organisations. Based on the literature, it has been established that TQM implementation can fail, due to inadequate attention to the specific cultural and structural variables in the corresponding institution. In this regard, Gherbal et al. (2012) explained that organisational culture consists of an organisation's set of values, beliefs, customs, norms and practices. Mohammad Mosadeghrad (2013) highlights this as a significant factor, which can either be a barrier or facilitator of TQM implementation. For example, several barriers are influenced by organisational culture, such as 1) the behaviour of the top management 2) education and training 3) employee involvement 4) the

enhancement of communication programmes 5) the modification of reward systems 6) and the evaluation and frequent revision of policies and procedures. Therefore, Gherbal et al. (2012) argues that in order to achieve successful and effective TQM implementation in any sector, an evaluation of the existing management approach and organisational culture should be considered, when an organisation attempts to implement TQM.

3.1.6.3 Lack of Middle and Top Management Commitment

The Top management can promote participation in an organisation by encouraging staff, and aiming to improve processes, rather than through personal accountability (Subrahmanya Bhat and Rajashekhar, 2009). Based on the literature included in this review, one of the main ingredients of successful TQM implementation is commitment from the management. It thus follows that the most significant factors of unsuccessful TQM implementation have been found to be a lack of commitment from the top management. According to Shameer and Sing (2013b), the senior management play a significant role through their direct supervision and involvement in the planning and implementation of certain policies. They also function as a source of support and motivation for the entire organisation. The above authors add that an organisation's senior management need to establish a climate of success to support the implementation of the entire quality programme. Another study, conducted by Subrahmanya Bhat and Rajashekhar (2009), found that a lack of commitment from middle managers is the main barrier to TQM implementation, and this arises from their fear of losing their position. Meanwhile, Mohammad Mosadeghrad (2013) claims that a lack of commitment from top management is the main reason for an organisation's failure to implement TQM programmes. Talib et al. (2011a) concludes that the leadership demonstrated by the management is an indispensable factor of TQM implementation, because it ensures best performance through its impact on staff, whereby it clarifies the organisation's mission and helps to devise suitable strategies for implementing TQM successfully.

3.1.6.4 Lack of Education and Training

In the studies included in this review, training and education were noted as supportive to the implementation of TQM programmes. It should also be noted here that finding solutions to work-related problems is dependent on innovative ideas from staff. Thus, the literature highlights training as another key aspect of successful TQM, alongside workplace culture, and collaboration between departments (Gherbal et al., 2012). Hence, a lack of adequate training can be a barrier to successful TQM implementation in an organisation. The studies in this scoping review report inadequate education and training as a major barrier to the implementation and development of quality programmes; in particular, training in areas such as group discussion, quality improvement skills, communication techniques, and

techniques for identifying and solving problems help promote the successful implementation of TQM programmes. Therefore, continuing education and training at all staff levels can contribute to successful TQM implementation in an organisation (Mohammad Mosadeghrad, 2013, Al Tasheh, 2013, Shameer and Sing, 2013b).

3.1.6.5 Staff Involvement in Decision-making and Interactions between Colleagues

TQM healthcare set-ups are dependent on healthcare providers being able to apply the values of health advancement and health education (Wardhani et al. (2009), since they are central to frontline service delivery. Key staff, such as nurses, who interface directly with patients, require strong institutional support. Aryankhesa Zarifraftar and Aryankhesal (2016) state that a lack of support and information can be a barrier to employees (healthcare providers) embracing the TQM concept. As such, these employees need to be given the appropriate tools, together with a sense of responsibility, so that they will be inspired to deliver quality services. A lack of empowerment will in fact be counterproductive to TQM implementation (Mohammad Mosadeghrad (2013). Moreover, Awuor and Kinuthia (2013) demonstrate that staff participation is a key facilitator of TQM implementation. Indeed, the studies included here reveal that staff morale can determine the level of success achieved in TQM implementation (Abdullah Hokoma et al. (2010). The central role of staff in this process has been strongly endorsed by some of the more prominent advocates of TQM, who state quite categorically that TQM implementation is impossible without employee involvement (Gherbal et al., 2012). One of the main questions facing the higher management is therefore how to engage staff, so that they feel committed to their organisations. The studies in this review highlight that employees' commitment to an employer is a function of their interaction and relationship with the organisation concerned, which is strongly related to management attitudes to employees (Hinchcliff et al., 2012). Therefore, management support and involvement may also be key factors in the fulfilment of objectives (Almuedo-Paz et al., 2012), although employees should be central players in achieving these objectives and feel part of the decision-making process (Mohammad Mosadeghrad, 2013).

3.2 Summary of the Scoping Review

The aim of this review was to explore existing evidence of TQM implementation and to identify any gaps in the literature. Most studies included in this scoping review have focused on the barriers to TQM implementation in the industrial and service sectors. For example, Subrahmanya Bhat and Rajashekhara (2009) aimed to identify the barriers to TQM implementation, in order to make them known to managers in India's industrial sector.

Schmaltz et al. (2011) also aimed to investigate barriers to the implementation of TQM, as experienced by service organisations in Saudi Arabia. These key findings include:

- Lack of teamwork
- Organisational culture as a barrier to TQM implementation
- Lack of commitment from middle and top management
- Lack of education and training.

A detailed review of the literature on implementing TQM in healthcare organisations indicated a gap in terms of tackling the barriers associated with the successful implementation of TQM in hospitals. This review also highlighted the lack of studies that have investigated the facilitators of successful TQM implementation in hospitals.

Moreover, there is evidence to suggest that there is a difference between TQM implementation in a healthcare setting and TQM in other sectors (service and industrial). Currently, the available empirical studies mainly present findings from various situations and cases as evidence of the failure or success of TQM implementation in service and industrial settings, with only a few being conducted in a healthcare setting. Therefore, there is a need for further studies on TQM implementation in a healthcare setting, in order to explore the barriers and facilitators of TQM implementation in Jordanian healthcare settings.

Aside from the above, most of the studies included in this review were carried out in developing countries, but only a limited number were conducted in Arab countries and none in Jordan. Therefore, there is a need to understand the barriers and facilitators of TQM implementation in this specific context. According to the literature on TQM implementation, scholars such as (Talib et al., 2011a, Zarifraftar and Aryankhesal, 2016) recommend further work to investigate the barriers and facilitators of TQM implementation. As a result, the current study could add to the paucity of research evidence in this area. The findings from the studies reviewed here were inconsistent, with the barriers of TQM implementation varying from country to country and according to the structure, size and ownership of the respective institutions.

This review also suggests that an in-depth understanding of the barriers and facilitators of TQM implementation in hospitals is required, because only a limited number of the studies reviewed attempt to identify the barriers to successful TQM implementation, while none have explored them in detail in a healthcare context. Mohammad Mosadeghrad (2013) and Talib et al. (2011b) recommend further research to explore these barriers and facilitators in depth, so that TQM can be implemented successfully in healthcare.

3.3 Gap in the Literature

This scoping review of the literature helps provide a preliminary understanding and evaluation of TQM implementation in industrial, service and healthcare settings. The subsequently identified gaps in the literature include the following:

1. Jordan has a higher proportion of Muslims than the countries in which previous studies have been conducted on this topic. Due to differences in cultural, economic and religious beliefs, as well as the nature of Jordan's healthcare system, a new study could produce unique findings to address Jordan's TQM problems.
2. Some previous studies have recommended further investigation into the barriers and facilitators of TQM implementation in healthcare settings (Das, Kumar and Kumar, 2011; Talib, Rahman and Azam, 2011).
3. All previous studies on TQM have been concentrated in governmental organisations, thereby presenting a localised, rather than national view. Therefore, what is now required is a study that looks beyond a single setting with a much broader and more diversified perspective.
4. There have been a limited number of studies that have explicitly attempted to identify the barriers to successful TQM implementation in the Jordanian health sector. However, identifying the barriers to TQM implementation in healthcare settings is not enough to determine what needs to be done to ensure the success of such implementation. Therefore, in order to achieve this, the present study also sets out to identify the facilitators of TQM implementation, so that this implementation can take place and be sustained in hospitals.
5. A detailed of literature on implementing TQM in hospitals indicates that there is a gap in tackling the barriers and facilitators associated with its successful implementation in hospitals. This project is a contribution to bridging this gap, so helping police makers and managers to implement the TQM in successfully Jordanian hospitals. This research study will discuss these barriers and facilitators with a focus on the private and public hospitals in Jordan.
6. Only a limited number of studies have explored the barriers and facilitators of TQM implementation in healthcare settings, and TQM has not been studied in Jordanian healthcare before, thus pointing to the need for this current study.
7. Finally, TQM is a relatively new philosophical system, especially in Jordan's service sectors and even more specifically, in its healthcare organisations. Consequently, this research could offer an evaluation of TQM implementation in the healthcare sector, identifying the barriers and facilitators of TQM implementation in hospitals

(Al-Zu'bi and Judeh, 2011). As such, this is an in-depth and robust methodological and theoretical approach, from the perspective of the managers, nurses and doctors, who are central to the process, thus making significant contribution to knowledge

3.4 Conclusion to the Scoping Review

In this chapter, a scoping review was conducted to explore the process of implementing TQM, as reported in the literature. What emerged was a core body of research on the barriers to TQM programmes in industrial and service sectors, with greater emphasis on the impact of TQM on quality in organisations, as opposed to the process of TQM implementation itself. Moreover, the general understanding of TQM programmes appeared to be poor and the literature added little to this, thus presenting research opportunities to explore the barriers and facilitators of TQM implementation in healthcare. In Chapter 6, which reports the interviews conducted with managers, nurses and doctors for this study, the findings on the barriers and facilitators of TQM implementation in hospitals will be interpreted in depth for the local context; enabling the results of the various research strands to be compared and contrasted in this study.

Chapter 4 The Theoretical Framework

4.1 Introduction

This chapter begins with a discussion of the integrated Normalisation Process Theory (NPT), and the purpose behind selecting NPT as a framework for this study. This is followed by describing how NPT was employed to underpin this research.

4.2 Integrated Theoretical Framework for the Research

Since the key aim of investigating healthcare delivery is to enhance patient care, it is not enough that the results are disseminated to the public. The science of healthcare delivery adopts a systems view to obtaining results at the level of the population (Pronovost, 2011). The difficulties and barriers involved in moving from a basic biomedical study to a clinical study and then to an implementation study mean that an investigator must address the gap between the development of new treatments and knowledge, and their implementation in practice amongst patients or population groups. This is often referred to as the 'T2 translational gap' (Woolf, 2008, Rapley et al., 2018). Here, it is essential to consider that implementation drives healthcare research by looking for theories that will inform both investigators and policymakers, with regard to the process of implementing new methods.

According to Patey et al. (2012), studies are conducted in healthcare settings to deliver results that can enhance the effectiveness and efficiency of patient care. However, as mentioned earlier, there is often a gap at the point of transferring research into routine practice; namely, a gap between the study findings and their practical implementation in healthcare settings (Woolf, 2008, Eccles et al., 2009). This will either mean a lack of obvious methodologies for guiding such implementation, or the poor applicability of the research results. The use of a theory on behaviour change amongst health professionals is therefore suggested to bridge this gulf between research and practice, as it is theory that will guide decisions over an implemented intervention under study (Craig et al., 2008, Grol et al., 2007). Therefore, the framework provided by the UK Medical Research Council for identifying and understanding the process of implementing TQM was deliberated upon in this present case (Craig et al., 2008).

Eccles et al. (2005) highlight the significance of applying theory as a means of guiding and understanding how to implement methods, especially complex multifaceted methods, like those relating to TQM in hospitals. As a result, it could simply be stated that TQM is a complex method that necessitates the application of theory. In order to achieve this, it is helpful to consider what is meant by theory. Theory has been defined as "a coherent and

non-contradictory set of statements, concepts or ideas that organises, predicts and explains phenomena, events and behaviour” (Bem & De Jong, 2013, p.109). One example of theory that can help shape implementation comprises the social cognition theories, which state that audit and feedback (in the form of implementation) can only produce change in motivated populations, and may not work in populations that lack such motivation (Eccles et al., 2005).

O'Donnell et al. (2017) propose three identified levels of theory:

- Grand theory: abstract and widely usable across a range of areas and topics.
- Mid-range or 'big' theory: addressing specific phenomena or notions and capable of being developed into testable questions, which can also be applied to inform the process of implementation.
- Programme theory: specifying particular components of an intervention in a logic model, usually linking a programme's processes and inputs with its intended results.

As Ferlie and Shortell (2001) clarify, implementation should take place at one or more of the following levels: for the individual health professional, in healthcare groups, in healthcare organisations, and in larger healthcare systems. The pertinent theory employed, therefore, will depend on the level at which the new method or programme will be implemented, with a view to translating the research results into routine practice. For this purpose, a full exploration of the theories that relate to the directed implementation must be carried out (Eccles et al., 2005). The appropriate selection of theory will rely on the reasoning and rationale underpinning that selection.

Accordingly, a case study design was determined as appropriate for this study, as will be explained further in Chapter 5. However, due to the large quantity of data that is often produced in case study research, data analysis becomes an intricate and critical matter. Consequently, the use of a robust theory can assist a researcher with organising and sorting the data, so that it is clear. In particular, the theory determined for use in this study needed to be suitable for examining the methods used for implementation in healthcare organisations, as TQM is targeted towards hospitals at organisational level.

In a study by Damschroder et al. (2009) current theories that consolidate the effective implementation of interventions were investigated. The above study resulted in the evolution of the Consolidated Framework for Implementation Research (CFIR), which presents an “overarching typology to promote the implementation of theory development and verification about what works, where and why in multiple contexts” (Damschroder et al., 2009), p.35). Since then, CFIR has been utilised extensively in implementation settings, particularly hospitals (Kirk et al., 2015). However, it is not the only implementation

research theory; there are in fact other commonly applied frameworks, including the RE-AIM Framework, Promoting Action on Research Implementation in Health Services (PARIHS), and Normalization Process Theory (NPT). These are included in a high-level review by Tabak et al. (2012).

While all these relevant theories are concerned with gaining further understanding of the process of implementing complex methods, Tabak et al.'s review identifies differences at healthcare system level, where each method is conducted. The above-mentioned authors were operating at the level of individuals, organisations and communities, but only NPT provided a lens through which to examine healthcare systems. Accordingly this was the rationale for selecting NPT as the theoretical framework in this current study. In recent years, it has been successfully utilised as a means of exploring and understanding the barriers and facilitators associated with typical implementation in healthcare settings (McEvoy et al., 2014).

4.3 Understanding Normalisation Process Theory (NPT)

NPT is a sociological theory of implementation that concentrates on the work to be carried out by individuals and groups, with a view to embedding or 'normalising' new methods in routine practice (May and Finch, 2009). It is a middle-range theory of socio-technical change, which offers a framework for understanding why implementation new methods in healthcare are routinely accepted and embedded in some hospitals, but rejected in others (Mari et al., 2008). It is employed to elucidate the factors that promote or inhibit the process of implementation in healthcare, such as TQM, from being implemented in healthcare (May & Finch, 2009).

NPT and its predecessor, the Normalisation Process Model, were originally derived from an empirical study, aimed at comprehending why implementation e-health methods were embedded in daily routine practice, and others not (May et al., 2007). It has, however, rapidly developed and is now used in a wide range of complex interventions in healthcare systems; including, for example, the treatment of chronic kidney disease in primary care (Blakeman et al., 2012), work undertaken among patients living with chronic heart failure (Gallacher et al., 2011), maternity care (Forster et al., 2011), speech and language therapy (James, 2011), diabetes (Furler et al., 2011) and process evaluation for complex new method in primary care (May et al.2007).

The intention behind NPT is that the new method practices become implemented and routinely embedded in healthcare contexts on a day-to-day basis, as a consequence of individuals working to implement them, whether alone or in groups. Thus, in order to understand how a practice becomes embedded, or is introduced as a new working method,

it is essential to look at what individuals actually do and how they work, both individually and in groups. In these terms, 'work' is defined by Franx et al. (2012) as a "purposive social action that involves the investment of personal and group resources to attain goals". Therefore, NPT is mainly related to what individuals actually do, rather than what they think. It will therefore help clarify for the current researcher, which factors prevent the implementation of TQM (the barriers) and which promote it (the facilitators), thus leading to new methods of sustainable (TQM) implementation in hospitals.

To summarise, NPT is an applied theoretical framework, which aims to explain and understand the factors that enable or inhibit the process of implementation in healthcare setting (May et al., 2011). The theory is concerned with:

- Implementation: the social organisation of bringing practices into action
- Embedding: the process of practices becoming or not becoming part of daily routine
- Integration: maintaining practices in their social context.

NPT focuses on how individuals make sense of a practice, participate in it and then evaluate what they do (May et al., 2011). It is thereby proposed that in order to comprehend the normalisation of practice, what individuals do and how they work must be explored (May et al., 2009). Hyett et al. (2014) highlight how NPT suggests that the work of implementing TQM is performed through the following constructs:

1. Coherence (the work of comprehending or making sense of a new method)
2. Cognitive participation (the work of involvement)
3. Collective action (the work performed to enable an implementation to occur)
4. Reflexive monitoring (appraisal, or work that assesses the benefits and costs of an implementation).

These constructs have their own supporting sub-constructs and there are four of these per construct, each of which can be established by questioning its suitability for the research, with a view to guiding the collection of data to be analysed (O'Donnell et al., 2017). There are presented Table 4.1. TQM is expected to be sustained by giving attention to these aspects.

Table 4.1: NPT mechanisms, as described by Gallacher et al. (2011)

Main constructions			
Coherence (Sense-making work)	Cognitive Participation (Relationship work)	Collective action (Enacting work)	Reflexive monitoring (Appraisal work)
Sub-constructions			
Differentiation How a set of practices and their objectives differ from each other	Enrolment The strategies used to engage (buy-in), sustain engagement, and help secure implementation	Skill-set workability The allocation work underpinning the division of labour and built up around a set of practices	Reconfiguration Redefining procedures or modifying practices
Communal specification Building a shared understanding of the aims, objectives and expected benefits of a set of practices (specification)	Activation Collectively defining the actions and procedures necessary for sustaining a practice and remaining involved	Contextual integration Managing a set of practices through the allocation of resources, and the execution of protocols, policies and procedures	Communal appraisal Collecting information to determine the effectiveness and utility of a technique
Individual specification Understanding specific tasks and responsibilities around a set of practices	Initiation Whether or not key participants are working to drive the process of implementation forward	Interactional workability Interactional work that people perform when operationalising TQM	Individual appraisal Participants working experientially as individuals to appraise the effects of that work on

			themselves and in the contexts in which it is performed
Internalisation Understanding the value, benefits and importance of a set of practices	Legitimation Ensuring that other participants believe it is right for them to be involved and that they can make a valid contribution	Relational integration Knowledge work to build accountability and maintain confidence in a set of practices	Systematic collection information to determine the effectiveness and utility of an intervention

NPT varies from decisions about diffusion or adoption, as it centres on the terms of use and behaviour of everyday users. Thus, this theory assists with foreseeing the barriers and facilitators that could drive decisions over adopting theory, as well as identifying the significant facilitators of something such as TQM practice to become sustainable within Jordanian hospitals. NPT may be operationalised at multiple socioecological levels, including amongst individuals, groups, systems and organisations. Numerous investigators have consequently implemented NPT in healthcare settings (Lauritsen et al., 2015, Williamson et al., 1999) and quality programmes, like hospital accreditation projects (Douglas et al., 2014, Hickson, 1987). NPT concentrates on the actions that individuals and groups perform, in order for an implementation to eventually become routine practice (normalised).

4.4 Rationale for Selecting Normalisation Process Theory (NPT)

In addition to the rationale mentioned in Section 4.2, as a theory conceptualising the factors that play a role in successful implementation, NPT would appear to be an apt model for describing the TQM process in Jordanian hospitals. The aim of the current research is to explore the barriers and facilitators to TQM, and gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector from the perspective and experience of the staff, including managers, nurses, and doctors of the chosen Jordanian hospitals. Thus, NPT provides a framework for identifying the factors that promote or inhibit TQM's normalisation into everyday practice (Taylor et al., 2013, Patey et al., 2012, Amemori et al., 2011). An additional advantage to selecting NPT for this study is that it is frequently used to guide various types of study design in specific qualitative studies, as is the case in the studies mentioned above. However, NPT has also been

employed to guide data extraction and coding in systematic reviews, including one that explored the impact of living with chronic disease (Gallacher et al., 2013) and another that provided information on the implementation of e-health initiatives (Mair et al., 2012). In this present study, the application of NPT will help the researcher explore the relevant barriers and facilitators linked with TQM implementation in hospitals.

The use of NPT theory is envisaged to improve the interpretability of the current research results (Tabak et al., 2012). Additionally, Davies et al. (2010) stress that the implementation of this theory will make it easier to overcome barriers to TQM implementation and to explore its facilitators, in order to promote successful TQM implementation in Jordanian hospitals. The use of NPT in this research will also help the researcher look at what individuals actually do and how they work. It emphasises the necessary group and coordinated actions for bringing about change at individual and hospital level (May and Finch, 2009). Creswell et al. (2007) explains that in qualitative studies, the use of theory differs from its application in quantitative studies. In this current study, NPT is used as a lens through which data can be examined and interpreted.

Moreover, NPT was selected as the most suitable theory for this study because, and as supported by McEvoy et al. (2014), it recognises the significance of what people do when they implement TQM in healthcare organisations. This lucidity and focus on practice is highly applicable to the current study objectives. Additionally, May et al. (2010) explained that it also recognises the need to identify the processes that inhibit (barriers) and promote (facilitators) implementation of complex method such TQM in hospitals. This attribute directly relevant to current study`s questions (see Chapter 1) and consequently represents a significant benefit in utilising NPT.

Nutley et al. (2007), proposed that it is also used as “a conceptual framework for exploring the gap between health research evidence, policy and practice” (p, 13). Additionally, the use of NPT in this study provides a framework that is generalisable across settings and individuals. It also offers an opportunity to improve and add to knowledge in the field and may guide the interpretation of the study findings (Davidoff et al., 2015, O'Donnell et al., 2017).

4.5 Employing Normalisation Process Theory (NPT) in the Current Research

The current research is based on a research design for exploring the barriers and facilitators to TQM implementation in practice, from the perspective of staff employed as managers, nurses and doctors in Jordanian hospitals. Thus, the use of NPT enabled the researcher to consider the barriers and facilitators to implementation of TQM in a more

nuanced way, considering how individuals and groups had to think about, engage with and monitor the impact of TQM in their own hospital settings.

Four key techniques are explained, in which NPT might be used to inform studies where qualitative methods are implemented, as outlined in Table 4:2 (Blakeman et al., 2012, Franx et al., 2012, Murray et al., 2010).

Table 4:2 Applying NPT in a qualitative study

1. NPT can be used to help formulate the research questions
2. NPT can be used to inform the interview schedule
3. NPT can be employed to facilitate the coding and analysis of qualitative data
4. NPT can help guide the interpretation of the research findings, providing a framework for making sense of the results and assisting with conceptualisation and reflection.

In this current study, the researcher has employed NPT as the underpinning theory in an exploration of the barriers and facilitators associated with TQM implementation in Jordanian hospitals. In the first step, the researcher utilised NPT as a heuristic device to review the context in which TQM had already been implemented; identifying the questions relating to existing TQM implementation across the four NPT constructs (see

Table 4.2).

The current study was designed to help the researcher to explore the barriers and facilitators to TQM, and gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector from the perspective and experience of the staff, including managers, nurses, and doctors of the chosen Jordanian hospitals. NPT was then utilised to develop the interview guide for this study; using the four constructs of coherence, cognitive participation, collective action and reflexive monitoring to generate interview questions related to the study aim and objectives, while also highlighting the necessary context, work and processes for implementation. In this study, the researcher used NPT to help make sense of and interpret the study findings, which included thematic analysis to analyse the interview, document and field note observation data. Likewise, NPT was employed to frame the study findings, with a view to implementation. Thus, the researcher adopted NPT to map and interpret the research results (Franx et al., 2012), details of which are presented in Section 6.12.

Table 4.2 Normalization Process Theory Mapping Framework for the Barriers and Facilitators to TQM in Hospitals

Coherence (Sense-Making Work)	Cognitive Participation (Relationship Work)	Collective Action (Enacting Work)	Reflexive Monitoring (Appraisal Work)
<p>Differentiation: knowledge and understanding of the accreditation process, its significance, scope and aims</p> <p>Do staff see TQM as new way of working? Is it different to current practice?</p>	<p>Enrolment: engaging with colleagues, facilitators, TQM focal persons, and heads of relevant hospital, and departments for support on TQM</p> <p>Are staff able to organize themselves, and others, to embed ? Will they invest/spend time and effort on it? Do they think they are the right people to be involved?</p>	<p>Skill set workability: laying down a strategy to ensure that TQM standards are entailed within the daily scope of work in hospital – this is more action oriented than laying down a strategy.</p> <p>How does it fit with existing work practices? Do those implementing the TQM have the correct skills and training? Does it impact on the division of labour?</p>	<p>Reconfiguration: revisiting TQM standards to make them more context sensitive and applicable to the reality of existing primary health care settings</p> <p>Will staff be able to modify the intervention based on evaluation and experience?</p>
<p>Communal specification: Attaining information about TQM from colleagues, MOH facilitators, TQM focal persons, TQM and quality directorate, and heads of TQM departments.</p> <p>Do all those involved have a shared understanding of the aims, objectives and expected benefits of TQM</p>	<p>Activation: managing to receive support from TQM specialists and focal persons</p> <p>Are those involved able to define the activities and procedures needed to take forward and sustain implementation activity?</p>	<p>Contextual integration: ensuring that financial and human resources are in place to enable the implementation of TQM</p> <p>Does it fit with organizational goals and policy – this can be at local, regional and/or national level? This can refer to human, financial, social resources.</p>	<p>Communal appraisal: evaluating the required alteration of initiated TQM standards and procedures for context sensitivity purposes, along with colleagues and TQM focal persons</p> <p>How will staff collectively judge the effectiveness of the TQM process?</p>
<p>Individual specification: seeking to understand more about TQM through relevant readings and research, and through one's own experience with TQM</p>	<p>Initiation: using given professional knowledge and skills to manage one's own contribution to the TQM process, such as</p>	<p>Interactional workability: implementing TQM standards and procedures, attending relevant meetings, seeking quality</p>	<p>Individual appraisal: personally assessing whether or not to continue abiding by standards and procedures as required by accrediting bodies</p>

<p>Do they understand their own specific tasks and responsibilities in the TQM process? Does it make sense to them?</p>	<p>following standards as set by accrediting bodies In particular, are key staff willing and able to drive forward implementation? Can they engage others in the implementation?</p>	<p>improvement measures in daily practice Does TQM process make it easier or harder to complete routine task</p>	<p>How will they individually judge the effectiveness of the TQM process?</p>
<p>Internalization: having and understanding of your experience vis a vis TQM, realizing its implications, knowing when and where to get support Do all staff understand the potential benefits and values of the TQM process?</p>	<p>Legitimizing: pursuing feedback from TQM focal persons to ensure that work is aligned with TQM standards and procedures Do those involved think they are the right people to be involved? Do they “buy into” TQM? Are they seeking reassurance from others about the appropriateness of the implementation plan?</p>	<p>Relational integration: establishing relationships with TQM focal persons and ensuring access to TQM related information when needed- establishing relationships more in the CP domains. Do those involved have confidence in the TQM process and in others implementing it?</p>	<p>Systematization: developing means to stay informed about the most recent information on TQM – this is more about how they are evaluating the impact. How will staff evaluate the impact and benefit of TQM? This may use formal and/or informal methods</p>

4.6 Chapter Summary

In NPT, the emphasis is on the work that people and groups must perform to normalise an implementation. After a review of the most pertinent theories, the researcher selected NPT for this study, due to its focus on identifying and explaining the barriers and facilitators that promote or inhibit implementation methods; specifically, the methods deemed to be ideally suited to TQM implementation in hospitals. NPT was therefore used to guide the interpretation of the current study findings. Accordingly, the next chapter will discuss the research methodology.

This chapter has highlighted the need to apply theory to guide the data analysis. It has also presented the rationale for choosing NPT as a means of accomplishing the above. Meanwhile, the data analysis technique has also been outlined, with an explanation of how NPT was used in this study.

Chapter 5 Research Methodology

5.1 Introduction

This chapter begins with a discussion of the theoretical framework underpinning the research aim, namely the philosophy behind the proposed study and the research design. It then describes and justifies the appropriateness of the methods selected for the study setting; looking at the target population and eligibility criteria, the sampling and sample size, recruitment procedure, data collection, ethical considerations and data analysis, this is followed by an outline of the rigour and trustworthiness of the study, ethical Approval, and conclusion.

5.2 Philosophical Underpinning of the Study

A study paradigm is the investigator's overarching philosophical set of assumptions or belief system; underpinning the study itself and offering a base from which knowledge is shaped. In nursing studies, an investigator's paradigm relates to his or her ontological standpoint (opinions about the nature of reality) and epistemological point of view (opinions about the nature of knowing). These philosophical beliefs guide the methodology (way in which knowledge is gained) and approaches of the study (means and methods utilised to gain knowledge). It is important to have a clear understanding of the philosophical basis for selecting a research strategy; this promotes clarity, as well as the focus and consistency of the research design. Thus, it is important for all researchers to have a clear understanding of the best philosophical position from which to derive a suitable research method.

According to Klenke (2008, p.17), the ontological, epistemological and methodological components of the research triangle, shown in Figure 5.1, are essentially about truth. However, what exactly is meant by 'truth' in this instance? Moreover, what is the nature of truthful knowledge, and how can truth be ascertained? The axiological questions associated with these problems concern the value of being, wherein human beings are to be valued, simply by virtue of what they are.



Figure 5.1: The study triangle (adapted from Klenke, 2008, p.18)

Table 5.1 presents some of the differences between two main investigative paradigms in the context of nursing and management studies, adopted from Creswell (2013, p.145) and Wahyuni (2012).

Table 5.1: The fundamental beliefs underpinning key research paradigms (adopted from Creswell, 2013; Wahyuni, 2012)

Fundamental Beliefs	Positivism	Phenomenology (Interpretivism)(Constructivism)
Ontology Position on the nature of reality	External, objective, independent	Socially constructed, subjective, may change, multiple options
Epistemology View on what constitutes acceptable knowledge	Observable, measurable, able to provide credible data, cause and effect	Subjective, focus on details and meaning behind details
Axiology Role of values in research and the researcher's stance	Objective, value-free and etic	Subjective, value bond and emic
Methodology model behind the research process	Quantitative	Qualitative
Theory of Truth	Correspondence theory of truth: one-to-one mapping between research statements and reality	Truth as intentional fulfilment: interpretations of research object match lived experience of object
Validity	Certainty of validity: data truly measures reality	Defensible knowledge claims
Reliability	Reliable replicability: research results can be reproduced	Interpretive awareness: researchers recognise and address implications of their subjectivity

Therefore, Table 5.1 and Figure 5.1 summarise and clarify the epistemology, ontology, methodologies, axiology and constructivist techniques applied by the researcher in this present study, corresponding to its aims and objectives. Table 5.2, below, and the following paragraphs specify and explain the three dimensions (ontology, epistemology and axiology) of the study paradigms. These are then clarified and the variations between the positivist and phenomenological approaches are identified and labelled (see Table 5.2), thereby justifying the adoption of constructivism in this current study.

According to the literature, there are two key opposing research paradigms, and these are outlined in Table 5.2.

Table 5.2: Fundamental beliefs in research paradigms (adapted from Wahyuni (2012))

Positivism	The positivist researcher believes in an objective reality, which is independent of the observer. This objective knowledge is produced deductively, using rigorous methodology and experimentation. Quantitative research, or scientific enquiry, is generally based on the assumptions of post-positivism and involves the collection of numerical data to explain a phenomenon.
Phenomenology	The constructivist researcher believes in a subjective reality, which is individually constructed or co-constructed, using a methodology to obtain knowledge inductively from an individual perspective. Qualitative research, or social enquiry, is based on interpretivist assumptions and involves collecting contextual data about the 'how' and 'why' of a phenomenon.

Based on the strengths and weaknesses of each of these main research philosophies and the nature of the current study, the researcher selected the phenomenological paradigm, because it was deemed to be more appropriate, since the study objectives demand in-depth comprehension of change processes, and of the meanings and understanding ascribed by individuals to the implementation of TQM practices in Jordanian hospitals.

The aims and objectives of this study were to explore the barriers, facilitators and perceptions associated with TQM implementation in Jordanian hospitals. With this in mind, positivist paradigms were rejected, as they are usually quantitative in nature, whereas this study demanded a qualitative approach; taking into account the experiences, opinions and perceptions of the population being studied. Therefore, the epistemological assumption underpinning this study is constructivism, given that the constructivist paradigm is usually qualitative in nature. This epistemological perspective emphasises that different individuals construct meaning in different ways, even when experiencing the same event (Crotty, 1998). Crotty presents several assumptions of constructivism, which are essential to this project in the following ways: (1) Considering that meaning is constructed by individuals, as they are involved in the world that they are interpreting, qualitative investigators tend to employ open-ended questions, which allow informants to share their own beliefs (2) people experience their world and make sense of it based on their historical and social perspectives/backgrounds, and (3) the basic generation of

meaning from experiences is embedded in social interactions within human communities. Therefore, the interpretation of findings in qualitative research is context-specific. Crotty (1998) and Denzin and Lincoln (2011) point out that humans colour the world in which they live with meaning, based on their own experiences and cultural milieu.

Investigators primarily endeavour to grasp and reconstruct meanings attributed by the participants to the phenomena being studied (Gubrium and Holstein, 1997, Jones, 2002) through an in-depth investigation of their personal experiences (Jones et al., 2006) and using open-ended questions (Crotty, 1998). The constructivist epistemology underpinning this study allows the investigator to explore the barriers and facilitators of TQM and to better understand TQM implementation in Jordan's healthcare sector (hospitals). In agreement with this worldview, the researcher has adopted a constructivist paradigm for this study, in order to understand the perceptions and experiences of TQM implementation among staff (managers, nurses and doctors) in two Jordanian hospitals. Additionally, constructivists believe that 'reality' consists of multiple realities that are socially and experientially based rather than objectively determined, and are based on the intangible mental constructions of the individuals conducting the research.

Despite the high homogeneity of employees in Jordanian hospitals, with regard to shared characteristics such as language and culture, there are still differences in their perspectives, attitudes and beliefs, due to factors relating to their experience of working in hospitals, level of education, disciplines, social class, and religious affiliation. The hospitals recruited for this study employ staff from various backgrounds and so the experiences of these staff were anticipated to be different. Therefore, the researcher wanted to examine the phenomena of interest (barriers and facilitators associated to TQM implementation in Jordanian hospitals) in a comprehensive manner, as the aim of the current study was to depend as much as possible on the participants' responses, as they described their experiences and situations (Creswell, 2013). It was also anticipated that healthcare providers would hold different points of view that had been affected by several factors, such as their experience of working in hospitals and their level of education.

Moreover it was anticipated that participants at the study sites would have a particular perspective and understanding of TQM implementation in their workplace. Therefore, the researcher designed this study to enable the phenomenon of interest to be iterated, namely TQM within a specific context. This conforms to a qualitative case-study design, which is generally applied when the phenomenon of interest involves real-life interactions and behaviours, events, processes and relationships.

In order to obtain a better picture of reality, researchers can triangulate several different approaches and different perceptions or viewpoints (Zhu et al., 2001). Given the

complexity of the TQM phenomenon, triangulations permit the researcher to draw together several viewpoints as a 'window' through which to obtain a better picture of reality (Perry et al., 2001). Through triangulation, using qualitative methods, taking an interpretative approach and gathering situational data in the natural setting, it was hoped that the researcher would gain a clear comprehensive picture of the reality of TQM implementation in Jordanian hospitals.

Moreover, the researcher seeks understanding of the world in which he lives and constructs meanings as he engages and makes sense of it based on social perspectives and interactions. Thus, the constructivist paradigm is again suitable for this study. Furthermore, a constructivism perspective is based on an epistemology which considers social realities to be constructed out of individual's experiences of phenomena and not from discrete tangible facts that can be measured. In this study, meaning was constructed by the participations in the study. Therefore, another paradigm was not appropriate for the current study objective as hospitals in Jordan have had limited experience with implementing TQM and a more explorative Interpretivism approach was considered the most suitable paradigm in order to explore and understand the perceived barriers and facilitators to implementation. Interpretivism and constructivism fit this aim and have guided the study design and data analysis.

5.3 Methodology: Qualitative Research

Regarding data collection approaches, research designs can be divided into two kinds of methodology: quantitative and qualitative (Creswell, 2013, Stake, 2013). Both have unique characteristics and are appropriate in different situations. Quantitative methods, are utilised to test a theory and make generalisations about populations. The quantitative method has an advantage in that it permits generalising the results from a large group of the population. However, Eli (2009) argued that the main weaknesses of deductive approaches (quantitative) are that they cannot address the *why* of phenomena. Additionally, Creswell and Clark (2007) indicate:

Quantitative research is weak in understanding the context or setting in which people talk. Also, the voices of participants are not directly heard in quantitative research. Further, quantitative researchers are in the background, and their own personal biases and interpretations are seldom discussed.

Qualitative methods are used to build theory and to allow the gathering of deep and rich information (Eisenhardt, 1989), which is considered important, relevant and significant (Yin, 2015). Moreover, qualitative research utilises words, sentences and paragraphs rather than numbers (Neuman, 2006). Qualitative study methods may be utilised when researchers need to comprehend a complex phenomenon or experience (Cridland et al.,

2015, Creswell, 2013). This can be comprehended directly by talking to individuals at their place of residence or work, thereby enabling them to describe their experiences, without being affected by the researcher's assumptions or bias (Krogh and Lindsay, 2009). Stake (2013) asserts that qualitative approaches are employed when the nature of the research questions requires exploration. Qualitative study questions therefore include 'How?' or 'What?' questions, leading the researcher to an in-depth understanding of the phenomena of interest (Seidman, 2013, Patton, 1987).

The limitations of qualitative study is that it tends not to be generalisable to a large population and to result in fairly subjective conclusions. As a consequence, the two kinds of methodology are different in both a practical and philosophical sense (De Ruyter & Scoll, 1998). However, Bowling (2014) highlights the advantages of qualitative over quantitative methods, particularly in cases where there is little pre-existing knowledge, where the issues are sensitive or intricate, and where exploration is required. Additionally, Creswell (2013) explained that qualitative study utilises approaches such as narrative, phenomenology, ethnography, grounded theory study or case study. This approach will therefore allow the investigator to collect data and explore topics in-depth to gain a clearer understanding of experiences in Jordanian hospitals (Creswell, 2013, Yin, 2015, Stake, 2013).

5.4 Justification for Adopting a Qualitative Research Method

A qualitative approach has been adopted for this project, because the main aim of this study was to explore the barriers and facilitators to TQM, and gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector from the perspective and experience of the staff, including managers, nurses, and doctors of the chosen Jordanian hospitals. Qualitative research methods are useful for discovering the meaning ascribed to events by those that experience them at first hand (Taylor et al., 2015, Creswell and Miller, 2000). Additionally, Seale (1999) suggests that the selection of a qualitative approach aims to gather the data that are most suitable to meet the current study aims and objectives. Leedy and Ormrod (2005, p.35) warn that qualitative research "is definitely not the approach to take if you are looking for quick results and easy answers", as it involves enthusiasm and determination on the part of the researcher (Njie and Asimiran, 2014).

Moreover, a qualitative approach was selected for this current study, as there is no existing literature on the barriers to, and facilitators of, TQM implementation, specifically in healthcare settings and as implemented by healthcare staff in Jordan. It was clear from the limited availability of literature on Jordanian healthcare that a comprehensive understanding of these issues was required, pointing to a qualitative approach to gaining

insights from a field study. Thus, according to Benzer et al.,(2013), and Portela et al., (2015) qualitative methods are particularly helpful in exploring and evaluating the implementation of complex programme (such as TQM) into complex organisational settings.

Moreover, a qualitative method was considered to be the most appropriate means for the researcher to get close to the object of investigation and explore the barriers and facilitators associated with TQM implementation in Jordanian hospitals. Face-to-face interviews were selected as the main data collection method, as it was anticipated that these would encourage the participants to share their experiences and offer as much data as possible in a free-flowing environment (Choy, 2014). The data gathered therefore consisted of statements made by the participants that were largely descriptive in nature, with the interviewees explaining the barriers and facilitators of TQM implementation at their Hospitals. Accordingly, in this study, the deployment of a qualitative method was considered the most appropriate way for the researcher to gain 'real', 'rich' and 'deep' data, considered to be significant, pertinent and important in relation to the study topic (Yin, 2015).

In the present study, the nature of the data is verbal, documentary reviews and observation, and the study problem is centred on the questions "how", "why" and "what". Consequently, the qualitative method is more appropriate for the present study. In particular, there is a common consensus that qualitative studies are a naturalistic, interpretative methods concerned with comprehending the meanings that individuals relate to phenomena such as actions, decisions, beliefs and values (Snape and Spencer, 2003).

Table 5.3 summarises the characteristics of qualitative research in general, as set out by Ritchie and Lewis (2013), in light of their relevance to this present research.

Table 5.3 : Characteristics of qualitative research and how each characteristic is utilised in this study

Characteristics of Qualitative Research	How the Characteristic was utilised in This Study
Aims to explore the barriers and facilitators to TQM, and gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector from the perspective and experience of the staff,	Interviews, document review and observation were utilised so that the participants could fully explain the barriers and facilitators associated to TQM implementation

including managers, nurses, and doctors of the chosen Jordanian hospitals	
Convenience and snowball samples of participants, selected according to relevant criteria	This sampling strategy was utilised to achieve a varied sample, which was reviewed during the study
Often, the data gathering approach is interactive between the researcher and respondent(s). They are flexible and permit the exploration of emergent issues	Face-to-face interviews, document review and observation were used, so that the researcher and respondents could interact and explore issues of significance to the respondents
Extensive data are produced, which are highly detailed and rich in information	The interviews, document review and observation created rich and highly detailed data
The analysis is open to emergent concepts, which may produce description, identify patterns of association, or develop typologies	The framework analysis technique used intended to fully describe and recognise themes in the data
Outputs often focus on finding meaning through mapping and representing the participant's social world	The final stage of the framework analysis process involved mapping and drawing conclusions from the data

5.5 Research Design: Qualitative Case Study Design

A qualitative case study is a method of enquiry that assists with the investigation of a phenomenon within its context, utilising various data sources. This ensures that the topic is not explored through just one lens, but rather through different lenses to permit various facets of the phenomenon to be examined and understood.

The qualitative case study design adopted has primarily been explored by two key authors: Yin (2015) in a case study conducted according to a post-positivist perspective and Stake (2013), in a social constructivist approach. In general, the case study is defined by numerous researchers in different ways. For instance, Robson (2002, p.178) describes it as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence".

An alternative definition is presented by (Myers, 2000), who proposes that " a case study is an in-depth study of the cases under consideration, and this depth has become another

feature of the case study approach" (p.1). Finally, Najmanovich et al. (2005) view the case study as seeking to

"...engage with a report of the complexity of social activity in order to represent the meanings that individual social actors bring to those settings and manufacture in them. Case study assumes that 'social reality' is created through social interaction, albeit in particular contexts and histories, and seeks to identify and describe before trying to theorize." (p.33).

5.5.1 Justification for Using a Case Study Approach

Creswell (2013) indicates five main research approaches to planning qualitative research. In the present case, TQM implementations represent a contemporary phenomenon that is best investigated using interview techniques, rather than investigating past experience of participation or exploring the life of the participant through narratives. Additionally, the aim of this study was mainly centralised in the barriers and facilitators relating to TQM implementation in hospitals, rather than studying the entire culture of a certain group. Hence, an ethnographic approach was not appropriate here. Finally, the researcher's objective was not to develop a theory grounded in the participants' experiences. As a result, grounded theory was not considered suitable for this study. Moreover, philosophy behind TQM in healthcare organisations is context-based and therefore difficult to examine, if isolated from its original context (Baxter and Jack, 2008). Stake (1995) concludes that a qualitative case study design is most appropriate, if the study aim is to comprehend individual experience and gain new knowledge about particular phenomena, and so it was considered to be the most suitable approach for the current study.

The case study is a key pillar in the field of research design, offering a number of advantages for the current study. Firstly, according to Yin (2015) and Stake (2005), it has the potential to permit intensive study, thereby attaining depth and in doing so, enabling the development of a rich description of events to illuminate understanding. Secondly, in this current study, the use of a case study design had the potential to make additional improvements and gain further insights into the topic, as proposed by Bauer et al. (2005). Finally, Yin (2015) claims that case studies offer the opportunity to answer research questions based on an enquiry into 'What?', with no need to control behavioural actions, but with the scope to examine contemporary events.

Of specific relevance to the current study is Keen's (2006) synopsis, whereby the case study, as a research design, is described as follows,

"This design simply aims to describe the programme as implemented. There is no attempt to gather data about outcomes, but knowledgeable stakeholders'

expectations of outcome and perceptions of the strengths and weaknesses of the programme can be gathered. Why is this descriptive design sometimes useful? Some quality improvement programmes are prescribed and standardised - for example a quality accreditation or external review. In these cases a description of the intervention activities is available which others can use to understand what was done". (Øvretveit and Gustafson, 2002, p.272).

Besides this, Øvretveit and Gustafson (2002) propose that a descriptive and contextualised method of managing quality organisation-wide in a healthcare environment may enable the barriers and facilitators that are critical to the success or failure of TQM implementation to be explored.

The researcher believes that the case study method is best suited to meeting the research aim in a Jordanian healthcare context. The case study research has specific value in the applied sciences where the study aim is to examine a problem in detail, place it in context and understand phases in a process (Gummesson, 2000). The present study aims to explore and describe the answer to the question, what are the barriers and facilitators to implementing Total Quality Management (TQM) practice in Jordanian hospitals as per the understanding of nurses, managers, and doctors? This is not a question for statistical analysis; the present study topic seeks to carry out an in-depth study to explore the 'real world', and consequently, case study research methodology was believed to be more fitting than using other research methodology.

This case study method enables the multifaceted nature of the barriers and facilitators involved in TQM implementation to be captured in both hospitals (Baxter and Jack, 2008). According to Stake (2013, p.435), case studies have become "one of the most common ways to do qualitative inquiry" and they permit in-depth exploration of a topic. Meanwhile, Yin (2015, p.2) is of the view that "the distinctive need for case studies arises out of the desire to understand complex social phenomena". Thus, the case study method permits researchers to capture the holistic and meaningful characteristics of real-life events (in this case, TQM implementation in Jordanian hospitals). Additionally, a case study method is particularly suitable here, because the TQM programme under study was bound by time and place (Blanche et al., 2006). Therefore, given that TQM is a programme, it is justified to adopt such a qualitative method of inquiry. Finally, the purpose of conducting this type of qualitative research on a specific subject is to learn more about an unknown or poorly understood situation (Creswell, 2013, Leedy and Ormrod, 2005).

The present study was conducted in hospitals. It investigates the constraints of everyday life practice, namely TQM. The data are descriptive in nature. Consequently, case study was considered the most appropriate for present study (Mackenzie and Knipe, 2006).

In addition to the above, Robson (2002) proposes the use of a case study to obtain a rich understanding of the study context. This is relevant to the current study's aims and objectives, which is to explore barriers and facilitators associated with TQM implementation in Jordanian hospitals. Moreover, Hakim (2012) confirms the case study's usefulness for research on both private- and public -sector hospitals. In this current study, the two largest hospitals in Jordan were selected in terms of bed capacity, one public and one private. These hospitals have led the process of TQM implementation in Jordan, as mentioned in section 5.5.1.

5.5.2 Determining the Type of Case Study

A case study design can be single, holistic, or multiple-case, depending on the type of question the study is seeking to address (Yin, 2015). According to the literature, there are four types of case research design (Yin, 2015) and these are outlined below.

Table 5.4 : Basic types of case study design

Type	Single-case Study Design	Multiple-case Study Design
Holistic (single unit of analysis)	Type 1	Type 3
Embedded (multiple units of analysis)	Type 2	Type 4

According to Yin (2015), Type 1 in the above Table involves a study on a single case, with a holistic or single unit of analysis (column 1, row 1). Meanwhile, Type 2 is a single case design with embedded or multiple units of analysis (column 1, row 2). In contrast, Type 3 involves multiple-case designs with a single unit of analysis (column 2, row 1), and Type 4 involves multiple-case designs, with multiple units of analysis (column 2, row 2).

A case is considered to be holistic, if it comprises just one unit of analysis, but is referred to as 'embedded', if it comprises several units of analysis (Perry, 2000, Yin, 2015). If the study is focussed upon what an individual can do, the unit of analysis will be an individual. Sometimes researchers use small cases that are part of a larger case, which is the unit of analysis in current project. These smaller parts, or sub-cases, are called 'embedded cases', since they are embedded in a bigger unit of analysis (Carson et al., 2001). A holistic design is employed when the study requires data on a broad or 'abstract' level, or when logical sub-units are not recognisable (Yin, 2015). For the present investigation, it was essential

to ask which case sort would be appropriate and whether the investigator must employ a single- or multiple-case study.

5.5.3 Single versus Multiple-case Studies

Based on this, in a qualitative study, there is no specific guide to the number of cases that should be utilised in a piece of research (Hyett et al., 2014). Lincoln and Guba (1985) propose sampling cases until a point of saturation is reached, while Patton (1990) claims that there are rules on sample sizes in qualitative studies. However, there are two widely used case study techniques: single and multiple-case studies. Each have their own distinguishing characteristics and are applied in different situations. Consequently, a key factor of case study design is whether to apply a single or multiple-case method and this is mainly determined by the potential of the method selected to find the answer to the research question. In respect of a single-case study approach, it can be adapted to determine whether a theory or proposition is true, or whether an alternative set of explanations may be more pertinent. Single-case studies are also can be utilised where the case represents an extreme or unique case (Yin, 2015). Accordingly, the current study did not meet the criteria for adopting a single-case study approach, because the cases were not unique. As a result, a multiple-case design was identified as most appropriate, with a single unit of analysis (Type 3, Table 5.4). This is because it involves multiple cases (two hospitals, one private and one government-funded), with a single unit of analysis (managers, nurses, doctors in a Hospital A and Hospital B).

Scholars present different views in support of the use of multiple-case studies. In this instance, they were selected to help gain a full understanding of the various issues surrounding barriers and facilitators in TQM implementation in hospitals. Here, multiple cases enabled the researcher to analyse the data within each case and across the cases. This technique helped the researcher comprehend the differences and similarities between the cases, with regard to the barriers and facilitators involved in their TQM implementation (Baxter and Jack, 2008, Stake, 1995). Using this method, a researcher can ascertain whether or not the results are valuable (Eisenhardt, 1991). Since the case studies corresponded to each other, the researcher will be able to make a significant contribution to the literature in identifying their differences and similarities (Devicienti et al., 2015).

Figure 5.2 illustrates these single/multiple and embedded/holistic combinations, with the upper right quadrant representing the design principles used in this current study. The case studies were to explore barriers and facilitators to TQM implementation and not on the organisations themselves. However, Hospitals A and B gave important context to the

study as exploring TQM implementation in a private and a public setting allowed for any differences between these settings to also be explored.

Drawing upon the existing scholarship, the researcher decided to use two hospitals (two case studies) in this research. As mentioned above, one of the Hospitals was state-sector and the other private, but both were in Jordan. These Hospitals deliver a wide range of medical care services and have the ability to perform complex medical procedures. Moreover, both Cases apply TQM to their service provision, whether medical or administrative. As the comes from Jordan, access to these Hospitals was comparatively easy and cost-effective. Respondents from each of the Hospitals were subsequently selected for interview (as discussed later in Section 5.6.1). These respondents consisted of the following staff: (1) managers, (2) nurses (3), and doctors. The researcher also gathered data by reviewing hospital documents and observing day-to-day activities in departments at both Hospitals (as described later in Sections 5.6.5 and 5.6.6).

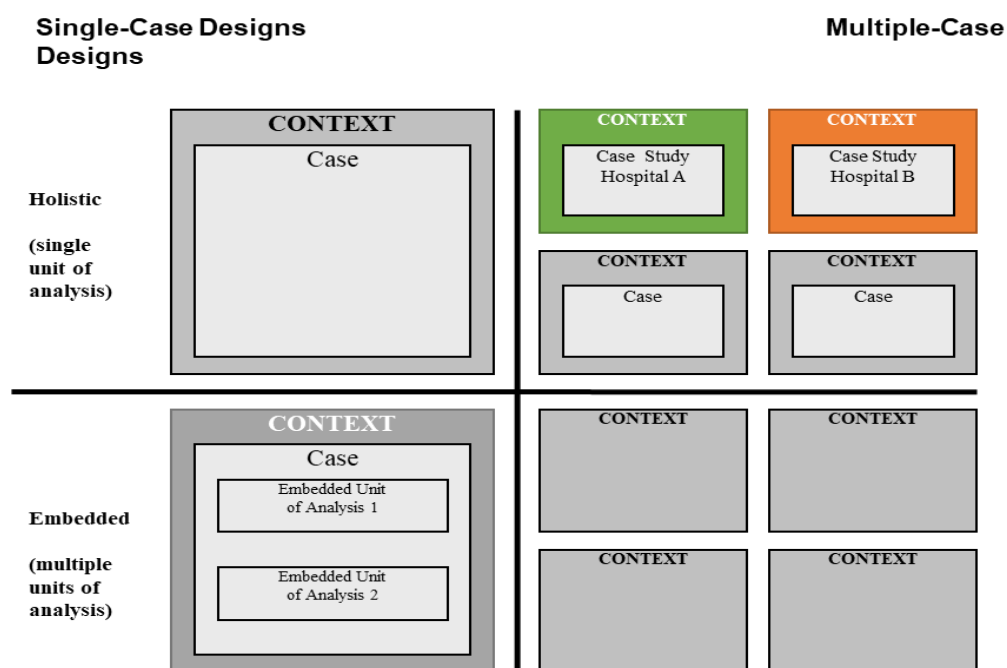


Figure 5.2 : Basic Types of Case Study Design (Source: Yin, R. 2003, Case Study Research: Design and Methods Sage, p. 41)

5.5.4 Determining the Cases and Units of Analysis

According to Stake (1995), an appropriate 'case' in case study research must be a well-bounded, specific, complex and functioning 'thing' (e.g. a person, problem or programme). 'Case' is defined by Miles and Huberman (2013, p.25) as, "a phenomenon of some sort occurring in a bounded context". The case is, "in effect, your unit of analysis". Accordingly, the researcher defined the case in this study as TQM implementation in Jordanian hospitals,

with two cases being selected in a healthcare setting in Jordan. The context of the case is therefore TQM implementation in private - and public -sector hospitals, specifically two cases consisting of:

- The views of managers, nurses and doctors regarding TQM implementation at Hospital A.
- The views of managers, nurses and doctors regarding TQM implementation at Hospital B.

Researchers need to set boundaries to a case, in order to ensure that it is reasonable in scope. It is recommended that the researcher must limit the case according to time, place, activity, definition and context (Creswell, 2013, Stake, 1995, Miles and Huberman, 1994). Accordingly, in this study, the researcher bounded the case study with embedded units, to be applied according to the determinants shown in Table 5.5.

Table 5.5 : How the researcher bounded the case studies recruited for this study

Item	Execution of the study
Time	<i>Data collection period of 3 months</i>
Context	<i>TQM implementation in private - and public - sector hospitals</i>
Activity	<i>Interviews with participants, documentary review and observation.</i>
Definition	<i>TQM implementation according to the understanding and experiences of managers, nurses and doctors in a healthcare setting (Hospital and Hospital B).</i>

5.5.5 Justification for Selecting the Type and Number of Case Studies

The number of cases relies on what the study seeks to explore, how the results will be utilised, and the resources available for the study, including time and budget.

In designing this study, the researcher considered the opinions of numerous authors regarding the number of cases (hospitals) required. For instance, Miles and Huberman (1994) suggest that more than 15 cases render a study 'unwieldy', while Lincoln and Guba (1985) declare that 'redundancy' must be avoided when making such a selection; instead, they suggest that two cases are enough, with additional reliance on extensive background cases and collected health studies.

Two case study hospitals (Hospitals A and B) were chosen to conduct an in-depth analysis of barriers and facilitators in TQM implementation in the Jordanian hospitals. The justification for selecting these two Hospitals was that they had only recently implemented TQM which provided an opportunity to explore this recently implemented change.

5.5.6 The Criteria for Evaluating the Quality of a Case Study Design

In this section, the researcher describes how the case study research methodology adopted fulfils four formal research criteria, namely construct validity, internal validity, external validity, and reliability (Yin, 2015). The researcher discusses and includes each of these criteria within the context of this study design. Unlike quantitative research, qualitative research tends to place less emphasis on reliability and validity and it is largely left to the qualitative researcher's discretion to decide whether it is appropriate to apply them in evaluating research (Bell and Bryman, 2007). Yin (2015) argues that because case study research is a form of empirical social research, the widely recognised tests for establishing the quality of social research should also be applied to case studies. Yin's (2015) four criteria are summarised in Table 5.6, below.

Table 5.6 Four tests for judging the quality of a case study

Construct Validity	Establishing Correct Operational Measures for the Concepts Being Studied.
Internal validity	Establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships (this applies to explanatory or causal studies, not descriptive or exploratory studies).
External validity	Establishing the domain to which a study's findings can be generalised.
Reliability	Demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results

5.5.6.1 Construct Validity

Construct validity involves establishing operational measures for the concepts being studied. There are three strategies used to increase the construct validity of this case study research (Yin, 2015). First, Yin proposes that varied sources of data be utilised, so that the investigation can be carried out using a convergence method. Second, Yin proposes that a chain of evidence be established, so that the evidence can be followed from the beginning of the research to its conclusion. In order to achieve this, research codes are used to reference each source of data; thereby providing evidence of the original sources of the data. In the present study, quotations have also been included, sourced

directly from the participants (the interviews) and analysed as data that “tell it like it is” (p.70).

5.5.6.2 Internal Validity

Often applied in explanatory or causal research, internal validity requires that there be no internal errors in the design of the research project (Neuman and Celano, 2006). There are four strategies for improving the internal validity of a study design, as explained by Yin (2015):

1. Recognising and matching themes
2. Building explanations from matching data
3. Addressing rival explanations
4. Applying logic models to reach conclusions

In the current study, cross-case analysis strategies were applied (as discussed later in Chapter 5), in order to gain a deeper comprehension of the gathered data and to build a picture of reality by investigating the commonalities and differences across the cases. This process helped the researcher to discern and understand the themes more easily and quickly than by merely describing each case (Miles et al., 2013). Alizadeh (1996) argues that if themes match, the findings add internal validity to case studies. The analytical tactic of theme-matching also demonstrates the concept of internal validity by presenting themes derived from data in figures and tables, and clarifying the commonalities and differences of the developing themes. This theme-matching logic compares an empirically-based pattern with a predicted one.

5.5.6.3 External Validity

External validity or transferability (which will be discussed later in Section 5.12.1) is defined as the extent to which research findings can be transferred or generalised (Denzin and Lincoln, 2011, Yin, 2015). In the context of this research design, external validity is attained by applying a multiple-case design. First, by triangulating several sources of data from two case studies, the data from multiple cases were utilised to address and elaborate upon the study question. Finally, care was taken by the researcher to choose suitable hospitals (as cases) and qualified respondents (experienced managers, nurses and doctors) to ensure external validity, thus explore the barriers and facilitators to TQM implementations in Jordanian hospitals.

5.5.6.4 Reliability

Trying to establish reliability is a further component of rigour in case study research design. Reliability suggests that the study findings could be repeated or would be derived again, if the case study was conducted once more in an identical or similar context (Neuman and Celano, 2006). According to Yin (2015), reliability in a case study involves being sure that the same findings or conclusions will be reached when two researchers conduct the same case study, using the same procedures in tandem (Yin, 2015). Yin goes on to explain that this can be attained through a case study protocol, which consists of the operational phase of the research. This can then be readily followed by other researchers to repeat a study: "the protocol contains the instrument as well as the procedures and general rules to be followed in using the protocol" (Yin 2015, p.67). Yin also suggests the use of a case study protocol and the development of a case study database to achieve reliability in case study analysis.

The case study protocol applied in this instance is illustrated in Table 5.7, which also summarises a number of issues that have already been addressed, as well as others that will be examined in the coming sections. Meanwhile, a case study database was established to collate the evidence used in the current data analysis. This included the interviewer's guide, interview transcripts and interview recordings. For this current study, the researcher developed an interview schedule and guide that included the research question and a set of probing questions, designed to answer the research question. The interview transcripts and audio-recorded data from the interviews were subsequently loaded into the database for analysis.

Table 5.7: The case study protocol

	Description	Date
Purpose of the Protocol	<p>This protocol is aimed at guiding the case study research into the barriers and facilitators associated with TQM implementation in Jordanian hospitals. Principally, this study seeks to address the following research question and research objectives:</p> <p>Research question: What are the barriers and facilitators involved in implementing total quality management (TQM) practice in Jordanian hospitals, as per the understanding of nurses, managers and doctors?</p> <p>Objectives:</p> <p>To explore the main barriers, if any, which affect the application of TQM in Jordanian hospitals.</p> <p>To identify the factors that are most likely to facilitate successful TQM implementation in Jordanian hospitals.</p> <p>To explore the experiences of managers, nurses and doctors concerning TQM implementation in Jordanian hospitals.</p> <p>To make recommendations for sustaining the application of TQM in the Jordanian context.</p>	
Case Selection	<p>Research Site/Organisational Context:</p> <p>A private hospital (Hospital A) and public-funded hospital (Hospital B): Hospital A provides medical and surgical treatment to Jordanians across all specialisms, while Hospital B treats cancer patients.</p> <p>The Case:</p> <p>The barriers and facilitators to TQM implementation in the Jordanian health sector: the researcher identified two case studies that met these criteria and where access could be gained.</p>	
Case Duration	A period of three months was determined to conduct semi-structured interviews with managers, nurses and doctors, as well as a documentary review and observations.	December 2017 - March 2018
Case Access	Access to the research site (both Cases) was negotiated through the Situational Review Boards (IRB) at Hospitals A	August 2017 -

	and B, together with access to the senior management at the two Hospitals.	November 2017
Data Collection Methods	The following data collection methods and supporting procedures seek to address the overall aim, objectives and research question:	
	Face-to-face interviews with 30 staff employed as managers, nurses and doctors; an interview guide incorporating questions organised under general themes, with scope for flexibility and exploration, and interviews conducted within boundaries outlined in the interview protocol and to be audio-recorded.	December 2017 - March 2018
	Access to hospital documents pertaining to TQM implementation in both Hospitals. Access to both hospitals for bi-weekly partial-participant observation.	January 2018 - March 2018

5.5.7 The Case Study Setting

The present study was undertaken in Jordan, involving two Hospitals, one in the private sector and one in the public sector, but both providing services in Jordan. The two hospitals had been recently accredited and so not only would their staff have experienced the process of TQM implementation from start to finish, it would still be fresh in their minds. They would therefore be well placed to describe the barriers and facilitators bearing upon the implementation of TQM standards throughout the TQM process, from its planning and design to full implementation.

Hospital A is a 160-bed private hospital, which employs 700 full-time staff. It provides a wide range of services and dispenses medication in Jordan. It has had over five years' experience in implementing TQM standards and was one of the first private-sector hospitals in Jordan to implement such a quality programme (in 2014). Based on Hospital A's extensive experience and vision, the researcher felt that it should be included in the study to enhance, enrich and contribute to the data analysis. Meanwhile, Hospital B is a 170-bed public-sector hospital, which delivers comprehensive cancer care in Jordan. It was first accredited in 2005 and receives over 3500 new cancer patients each year. This hospital has had a more varied history than Hospital A, with different levels of exposure to the accreditation process. The researcher therefore considered that the inclusion of Hospital B in this study would further enhance the data analysis.

5.6 Research Methods

This section gives details of the primary data collection methods. Particular attention is given to the design and development of the primary research method; its administration; its validity and reliability, and the subsequent data analysis. In turn, these are framed with reference to the theoretical and philosophical underpinnings of this study, as indicated previously.

The research method is one of the main characteristics of the case study method, using several data sources to produce results that are more reliable than those obtained utilising a single data source (Stake, 1995). The use of multiple data sources will improve the reliability of the findings, which is one criterion for the trustworthiness of qualitative research (see Section 5.12). The types of data collection employed in this study consisted of semi-structured interviews, document review, and observation. Furthermore, informal conversations took place as part of the observation period, which provided another source of data. This use of multiple sources enabled richer data to be collected, with more inclusive insights drawn from the experiences and perspectives of managers, nurses, and doctors.

Digitally recorded interviews were arranged for formal semi-structured interviews with the managers, nurses, and doctors study participants (see Section 5.6.1). In this study the researcher also collected data from internal documents, such as survivors' reporting organisational charts, departmental quality manuals, departmental procedures and protocols, job descriptions, reporting templates for medical equipment servicing, quality reports, and recommended communication means. Direct observation is also employed in this study. Data from documents and observation method were utilised to reject, support or confirm data collected during face-to-face interviews.

5.6.1 Interviews

In order to collect data in a qualitative study, interviews are particularly significant, particularly in case-study research (Rossetto, 2014, Newby et al., 2011), since they are an effective means of generating an in-depth understanding of social phenomena (Merriam, 1998). An interview is defined as "a face to face verbal communication between the researcher and the subject, during which information is provided to the researcher" (Burns and Grove 1993, p,25). According to Silverman et al. (2005) and Novick (2008), the qualitative interview is also a social encounter between two or more individuals, leading to negotiation for the purpose of a 'focused interaction'. It is therefore one of the most common and powerful methods of understanding phenomena. Consequently, interviews offer the prospect of authentic insights into the participants' perspective (Silverman et al., 2005).

In summary, qualitative interviews have been used for a wide range of purposes and are the most commonly employed approach in health and nursing practice research. They are conducted for a broad range of purposes and are the most frequently adopted method in healthcare, especially nursing (Amaratunga et al., 2002, Burns and Grove, 1993). This is because they are recognised as an effective method of identifying and exploring barriers and facilitators to TQM implementation and gaining a deep understanding of staff perceptions of TQM implementation in Jordanian hospitals (Lake et al., 2007).

5.6.1.1 Structured, Unstructured and Semi-structured Interviews

The literature reports three types of interview: structured, semi-structured and unstructured (Fontana and Fray, 2008). Structured interviews ensure that the same questions are put to every participant in exactly the same order. This sort of interview guarantees a confident comparison between sample subgroups and different research periods, but gives the participants fewer opportunities to engage with what is significant to them. In unstructured interviews, the interviewer passes the control of the interview to the interviewee, whose responses usually alter the flow of questions, because the content and order of the questions is adapted to the respondents' understanding and beliefs (Bowling, 2014). In semi-structured interviews, researchers commonly develop a framework of questions on a subject, in order to be able to explore it, but ensure sufficient flexibility to ask new questions following the participants' responses (Grbich, 1998). Consequently, even though semi-structured interviews have a set of concepts that they set out to explore, the researcher can move freely from one topic area to another, using the participant's responses to help define the flow of the interview. In short, it is a method that permits flexibility within the interview, while ensuring that each interview covers the main topic of relevance (Bryman, 2016). A list of questions sometimes known as an interview guide is generally used to accomplish this task (Bryman, 2016).

In this study, the researcher has utilised semi-structured interview with open-ended questions to explore the issues under investigation, instead of utilising structured or unstructured interviews. As the researcher had a clear focus of the topic he wanted to explore, the semi-structured interview process presented an opportunity to probe this area in more depth. Moreover, as the current study includes interviewees with different roles in the hospitals, there was an opportunity to compare interviewees' perspectives across different roles.

The semi-structured interview format also allowed the researcher to make these comparisons in a more organised way. It is a valuable tool for gaining data that can be compared (Fraenkel & Wallen, 2000), as respondents answer the same questions with some flexibility as the researcher follows up on participant responses that appear worthy

of being explored further (Bryman, 2001) . This method may also reduce researcher bias in addition to facilitating the organization and analysis of the data gained (Bryman, 2001).

Accordingly, several semi-structured face-to-face interviews were carried out with managers, nurses and doctors at Hospital A and B, in order to explore the barriers and facilitators of TQM implementation in Jordanian hospitals. These interviews were conducted to obtain multiple views of the phenomenon of interest. Open-ended semi-structured interviews were employed, because they allow the discussion to flow. They also demonstrate the complexities of phenomena that are unique to specific contexts, or explore themes or patterns across contexts (Yin, 2015). Based on guidelines formulated by Brinkmann and Kvale (2005) and Flick (2014), the purpose of the interview should be structured and clear for both the researcher and participants. In this study, the purpose of the interviews was outlined in the Information Sheet given to the interviewees, and was also outlined verbally, before the interviews commenced.

Here, the participants were sampled from two Case Study Hospitals, and included managers, nurses and doctors. To ensure that no important information was lost or missing and also to enable cross-data checks, all the participants were asked the same set of questions as well as additional and relevant probing questions. The duration of each interview was 40 to 45 minutes.

5.6.1.2 Justification of the Interview Method

Semi-structured interviews were considered to be the most suitable interview method to meet the aims of this study, as mentioned above. This is due to the following reasons. First, the study involved a case study method, which was established as the best approach to meeting the research aim. Hence, in-depth interviews would be conducted to gather comprehensive information about TQM implementation in two Jordanian hospitals, from the perspective of the employees. Semi-structured interviews are most commonly applied in healthcare studies that adopt a qualitative research methodology. In this instance, they would enable the study to enter a new area and provide rich information to help evaluate the implementation of TQM (Al-Busaidi, 2008). Moreover, this technique is widely employed in research approaches that allow for flexibility, as they offer the possibility of following responses and probing for answers, in a way that potentially leads to additional information being obtained through TQM implementation in Jordanian hospitals. This type of interview gives the researcher much greater freedom to probe for responses, thereby allowing the participants to expand on their answers (Robson and McCartan, 2016).

Aside from the above, semi-structured interviews permit researchers to ask more complex questions, which can then be followed up with further questions from the interviewer, in a way that is not possible in structured interviews. Arab researchers recommend the use of

a face-to-face semi-structured interview technique for research conducted in Arab countries (Twaissi et al., 2009, Ayoola et al., 1996). Secondly, the participants in the present study would be from different backgrounds, namely management, nursing and medicine. As a result, they would have different professional experience, perform diverse roles, and have received different levels and types of education. Third, this approach was considered suitable for exploring the perspectives, views and opinions of managers, nurses and doctors employed at both Hospitals, as regards a new and sensitive topic, namely the barriers and facilitators of TQM implementation in Jordanian healthcare. Finally, by adopting this approach, the interviewer was able to probe the participants for further information and clarification, allowing the researcher some flexibility of questioning in order to meet the research aim. Moreover, it helped the participants to recall information and permitted the researcher to gather concepts that they mentioned, by way of additional illustration (Louise Barriball and While, 1994).

These data were collected by the interviewer in the form of hand-written notes and audio-recording (Dziegielewska et al., 2000) and created opportunities for interaction between the researcher and the subject, thus encouraging the participants to voice their opinions freely (Charmaz and Belgrave, 2007).

5.6.2 The Target Interviewees

The aim of a qualitative case study interview is "to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena" (Amaratunga et al., 2002, p.4). As stated earlier, the study respondents were managers, nurses and doctors. The managers included heads of department, section heads, senior managers and quality managers, while the nurses included nursing supervisors, registered nurses from different departments, nurses-in-charge and heads of unit. Finally, the doctors included specialists and consultants. The respondents in each staff category had to meet a specific criterion, namely to have at least one year's experience in their hospital. The application of this criterion led to respondents being recruited, who had information about the barriers and facilitators involved in TQM implementation in their areas of work, and in-depth information about the Hospitals where they were employed.

The main consideration in the current sampling process (as discussed later in Section 5.6.3) was to recruit and select respondents who could offer deep insights into the issues under examination and to achieve this in such a way as to give credibility to the results. This would mean that the results could potentially be generalised to another context or larger population.

5.6.3 Sampling

There is some debate over sampling methods in qualitative studies, due to the lack of clear guidelines and principles for selecting qualitative samples (Morse, 1991). Njie and Asimiran (2014) reveal that in a qualitative study, the sampling strategy is determined by the kind of data that the investigator wishes to obtain, and the category of participants, documents or professional area that would be most appropriate to obtain it from. In consideration of these factors, convenience and snowball sampling techniques were applied to recruit participants for this study.

Convenience sampling is a type of non-probability or non-random sampling (Kothari, 2004). It is an appropriate technique to use in a healthcare population, since participants need to be approached as opportunities arise, due to their busy schedules (Etikan et al., 2016). Moreover, convenience sampling is affordable and easy, with the subjects being readily available (Suen et al., 2014). In addition, by using a snowball approach in conjunction with convenience sampling, the participants themselves will be able to continue to recruit potential participants, who may have information that is pertinent to the study (Simon, 2012). As such, snowball sampling allows further access to unknown expertise in a population, thereby allowing an in-depth exploration of participants' experiences of phenomena (Lincoln and Guba, 1985). As highlighted by Hendriks et al. (1992), the purpose of this study is primarily explorative and therefore, snowball sampling offers practical advantages.

5.6.4 Sample Size

The participants were not selected for this study because they represented their populations, but rather based on their relevance to the scope and nature of the study; the quality of data anticipated, and the study design and aim (Ritchie et al., 2013, Morse, 2000). For this study, the researcher selected participants over a period and did not limit their number. A qualitative sample size may best be determined by the allotted time, available resources, and study objectives (Patton, 1990). For this study, data quality is more significant than either the number of respondent or volume of data in qualitative study, and that a sufficient sample size is reached when the study question is answered sufficiently (Marshall, 1996). Therefore, there was no specific sample size pre-determined for this study. However, according to the Creswell. (2013) and Guest et al. (2006), for this study the sample size is determined by data saturation (more detailed in Section 5.10.1.1). This approach was selected in place of other sample techniques, as it was most suitable to meet the requirements of the current study objectives, qualitative design, and in generating rich data. Additionally, the intent of data generation is to gather extensive information from a sample size appropriate to answer the research question. Moreover, as

Brinkmann and Kvale (2005) indicate, one should "interview' as many [participants] as necessary to find out what you need to know" (p.30).

5.6.5 Document Review

Qualitative research approaches have been associated with interviews and observation; however, document review is another gathering data method of value. It is defined as 'a form of a qualitative analysis that requires readers to locate, interpret, analyse and draw conclusions about the evidence presented' Fitzgerald (2007, p, 43). In this study, document review was selected as a method of data collection at the two Case Study Hospitals. This involved the researcher using the data obtained from a review of relevant hospital documents to verify and support the data gathered through the interviews and observation. Document review has the potential to be a key instrument of data collection in a case study (Yin, 2003), when used as a secondary method of gathering data. According to Yin (2015), many types of documents can be retrieved and utilised as a valuable source of data, including administrative reports, letters, e-mails, agendas, meeting minutes, and even articles and news clippings. In the current study the documents reviewed comprised:

1. Quality manuals
2. Policy and procedure manuals
3. Internal audit and self-assessment reports
4. External audit and assessment reports
5. Committee minutes.
6. Financial statements

Data from these documents were used to reject, support or confirm data collected during interviews. Additionally, to increase the validity and reliability of the findings, several data collection approaches have to be employed such as interviews, documentary review, and observations (Yin, 2015). Moreover, using documentation approach in the current study enabled the researcher to gain a better understanding of the findings developed in interviews, and also provided further supporting to interview`s findings through triangulation (Bryman, 2008).

5.6.6 Observation

In qualitative studies, researchers conduct interviews and observations to get closer to the participants. Participant observation is commonly utilised to triangulate the data obtained in interviews (Merriam and Tisdell, 2015). Observation differs from interviews, as it allows a first-hand encounter with the phenomenon. Direct observation is a systematic process of recording the behaviour of individuals and things, as well as taking note of incidents, without questioning or communicating with the subjects being studied. According to Patton

(2002), on occasion it is difficult to fully comprehend a topic or programme under examination, without personally experiencing it. Moreover, Gummesson (2007) explains that observation is underused in the field of management and hence the scope to explore personal experience directly is sacrificed, as well as any opportunity to overcome the discrepancy between what research participants say and what they actually do (Bryman, 2016). Furthermore, Pope et al. (2006) found observation to be particularly useful for “circumvent[ing] the biases inherent in the accounts people give of their actions caused by factors such as the wish to present themselves in a good light, differences in recall, selectivity, and the influence of the roles they occupy” (p.183). Moreover, the above authors claim that observation exemplifies a beneficial research technique for studies on, for example, TQM management, as it involves everyday management, as exercised by staff in a healthcare context. This mirrors Pope et al. (2006) view that it is also suitable for exploring the barriers and facilitators to TQM implementation in hospitals, as it permits the researcher to explore actual behaviour. As a result, the researcher gathered further data through partial-participant observation from the two hospitals under study. Bryman, (2008) Collis and Hussey (2013) highlight the potential for three kinds of observation:

1. Non-participant
2. Participant
3. Partial-participant observation

In respect of non-participant observation, the researchers are detached from what they are observing and the participants being observed may or may not be aware of the fact that they are being observed. In participant observation, the researcher remains as non-committal as possible and participant observation, the researcher is fully engaged with the topic, in order to comprehend the phenomenon at first hand (Bell and Bryman, 2007, Collis and Hussey, 2013). The partial- participant is that the researchers played a passive role and they no attempt to control or manipulate any situation.

For the current study, partial-participant observation was employed, with the researcher playing a passive role. Therefore, he made no attempt to dominate or manipulate any situation encountered. This type of observation enables the researcher to ask questions about the tasks being undertaken and why, in order to gather responses concerning hospital documents and the participants’ opinions. According to Cavana et al. (2001), partial-participant observation is valid, since it gains insights into the nature of the phenomena observed (in this case, the barriers and facilitators relating to TQM implementation in hospitals). In addition, Cavana et al. (2001) support the validity of observational studies, stating that:

1. Data generated from observed events are generally deemed to be reliable and free from interviewee bias.
2. Environmental influences on specific outcomes are easily noted in observational studies.
3. Groups of individuals from whom it may be difficult to gather information in any other way can be easier to study.

In this current research, the researcher observed day-to-day activities performed at two Case Study Hospitals for a period of seven weeks. These observations included staff attitudes, motivation, the planning of daily activities and handling of service requests, staff and patient relationships, patient communication, staff communication, and meetings. Notes were taken and the information gathered from the observations was triangulated against data collected from other sources in this study, in order to reject, confirm or support the consistency of the information provided. The data collected through observation therefore helped answer the research question.

According to Pope and Mays (2006), observational approaches may differ in terms of the level of structure employed. Unstructured observation offers the researcher (observer) the freedom to select which data are collected and how these are recorded (Somekh et al., 2005). In contrast, structured observation methods gather data using a set of explicitly established rules for executing the process. This is reinforced via an observation schedule as the study instrument (Saunders et al., 2009, Somekh et al., 2005). However, Punch (1998) argues that the distinction between the two approaches (structured versus unstructured observation) can be slightly artificial in practice; proposing that in the very early phases of many studies, observations may be less structured and this can serve to develop more precision around the themes during subsequent observations.

Both structured and unstructured observation were therefore utilised, conforming to the interpretive constructivist approach. During the structured observation, the researcher directly observed the behaviour of staff involved in day-to-day activities. Meanwhile, the unstructured observation involved unplanned and informal watching and recording of activities as they occurred. The researcher was therefore not directly involved in any of these observed activities. The observations were recorded by taking hand-written notes of everything that happened during the attendance of the observer (see Appendix 2). Sophisticated recording devices, such as video cameras, could not be used, as they are prohibited within the Hospitals.

This confirms the significance of the context in which knowledge is structured between the researchers and the 'researched' (Mulhall, 2003). Additionally, the researcher used both

structured and unstructured observation, since his objective was to capture the general atmosphere and behaviour of the managers, nurses and doctors at the two Hospitals, and to confirm the data collected through semi-structured interviews and document reviews. In the early phase of the current study, the researcher had a general idea of what to observe (for example, staff attitudes, motivation, the planning of daily activities and handling of service, meetings, relationships between patients and healthcare providers, and staff communication). The researcher attempted to observe and make as many notes as possible, but as the research proceeded, the observation became more focussed (Hammersley and Atkinson, 2007, Schensul and LeCompte, 2012). Moreover, the researcher considered the physical environment and context of the interactions, while also clarifying his role as an observer. According to earlier studies (Baker, 2006, Gold, 1997), there are four different roles that the observer (researcher) can play while collecting data using the observation method. These types are based on the extent to which the participants are informed about the observation and the researcher's role (see Table).

Table 5.8 : The role of the researcher in observational studies (Musante, 2010)

Classification	Role in the Field of Observation	Informed Consent/ Deception
The complete observer	Maintains some distance, does not interact with the participants	Role concealed from the participants
The complete participant	Interacts within the social situation	Role is concealed from the participants
The observer as participant	Undertakes intermittent observation alongside interviews	Role is known to the participants
The participant as observer	Undertakes prolonged observation and is involved in all activities in the organisation	Role is known to the participants

5.6.7 Data Triangulation

Triangulation is a process of viewing a subject from several angles (Onwuegbuzie and Leech, 2005). It is preferable to look at a research topic from different perspectives, using a range of methods, instead of just from one angle. The aim of triangulation in qualitative studies is to increase the credibility and validity of the findings. Numerous researchers have re-defined the concept of triangulation over the years (see Table 5.9).

Table 5.9 : Data triangulation

Name of Scholar	Definition
Dick (2009)	Triangulation gives a more detailed and balanced picture of a situation.
Cohen et al. (2000)	Triangulation is an attempt to map out or explain more fully the richness and complexity of human behaviour by studying it from more than one standpoint.
O'Donoghue and Punch (2003)	Triangulation is a method of crosschecking data from multiple sources to search for regularities or patterns.

As stated earlier, the researcher collected data from two participating Case Study Hospitals by means of interviews, document reviews and observations. Data obtained from each source were cross-checked for accuracy. Thus, the researcher triangulated the data obtained from the interviewees with data collected through observation and document review. This enabled him to ensure that no information was missed. In this study, each data source confirmed or compensated for any missing or inadequate data in the other sources. This meant matching and double-checking the consistency of the data derived using a number of data collection methods for this research study. The triangulation was carried out as follows:

- Checking for consistency in terms of the statements made by managers, nurses and doctors about similar issues (the same interview questions).
- Comparing face-to-face interview information with data gathered through, documentary review and observations.
- Matching the information gathered from the interviewees, document review and direct observation to verify consistency and enhance the richness of the information.

This triangulation process was applied to each case study (hospital).

5.7 Data Analysis

5.7.1 Framework Analysis

The generation of themes is acknowledged as a common feature of qualitative studies and a widely utilised analytical method. Moreover, data analysis is an interactive process, wherein data are systematically examined and analysed to offer an illuminating description of phenomena. In this current study, the phenomena consist of the barriers and facilitators to TQM implementation in Jordanian hospitals.

For undertaking qualitative analysis, Smith and Firth (2011) describe four methods: firstly, there is content analysis, which is a technique employed to recognise patterns across

qualitative data by coding the data into themes and analysing them accordingly (Bowling, 2014). This method of analysis is centred at micro-level, often offering counts. Additionally, it permits the quantitative analysis of data that are initially qualitative (Ryan and Bernard, 2000, Wilkinson, 2000).

Secondly, there is grounded theory, where the analysis begins as soon as the researcher starts generating the data and includes searching for codes, concepts and categories within that data, with no preconceived hypothesis (Ritchie et al., 2013).

Thirdly, thematic analysis is the most commonly used and well-established analytical technique in qualitative research and it consists of organising data content into themes (Braun and Clarke, 2006). The six steps of thematic analysis, adopted from Braun and Clarke (2006), are explained in Table 5.10.

Table 5.10 : Phases of thematic analysis adopted from Braun and Clarke (2006)

Phase	Description
Familiarization of data	Transcribing data, reading and rereading the data, noting down initial ideas
Generating initial codes	Coding interesting features of the data in a systematic way across the entire data set, collating data relevant to each code
Searching for themes	Collating codes into potential themes, generating all data relevant to each potential theme
Reviewing themes	Checking the themes work in relation to the coded extracts and the entire data set, generating a thematic 'map' of the analysis
Defining and naming themes	Ongoing analysis to refine the specifics of each theme, generating clear definitions and names for each theme
Producing report	Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back analysis to the research question and literature,

Finally, the framework method is an approach to data analysis that resembles thematic analysis and the terms are often used interchangeably. Thematic framework analysis bears a considerable similarity to thematic analysis in the initial stages, when the researcher is identifying repeated and important themes. Ritchie and Lewis define the framework approach as:

“A matrix based analytic method which facilitates rigorous and transparent data management such that all the stages involved in the ‘analytic hierarchy’ can be systematically conducted.” (Ritchie et al., 2013)(p.35)

The generation of themes is acknowledged as a common feature of qualitative studies and a widely utilised analytical method. Moreover, data analysis is an interactive process, wherein data are systematically examined and analysed to offer an illuminating description of phenomena. In addition, thematic analysis enables rich and deep insights to be gained of intricate phenomena. It is used across a range of theoretical and epistemological methods, in order to expand on or test existing theory (Braun and Clarke, 2006). However, it is also sometimes criticised for lacking depth, since it fragments the phenomena being investigated. Furthermore, it is subjective; characterised by a lack of transparency in the creation of themes, which can present difficulties when judging the rigour of the results (Attride-Stirling, 2001). However, the ‘framework approaches’ sit within a broader family of analytical approaches, often referred to as ‘thematic analysis’ or ‘qualitative content analysis’. Moreover, a thematic analysis framework can be utilised in all types of qualitative study (Tobin and Begley, 2004).

In the current study, a thematic analysis framework was selected to underpin the data analysis, since it was considered to be the most suitable approach for this study, due to a number of reasons.

Firstly, in recent years, this technique has been increasingly employed in health studies, since the data are analysed, charted and sorted into principal themes, in the five phases clarified in Table 5.11 (Ritchie et al., 2013). Secondly, one of the advantages of using the framework method in this study is that it ensures transparency in the researcher’s interpretations of the respondents’ experiences (Ritchie et al., 2013). Thirdly, it was considered useful for this study, since the researcher had past experience in qualitative research. It therefore provided him with an effective road map for the study, facilitated the case study process, and enabled a theme-based method of data analysis (Smith 2011).

Additionally, given that the researcher was working on a project where a huge volume of information would need to be managed (35 interviews, as well as document reviews and observations), it was considered desirable to gain a holistic and descriptive overview of the entire data set, especially as the researcher have an experience of qualitative data analysis. As mentioned earlier, it should be emphasised here that it is especially difficult and confusing for a novice researcher to progress from data management to data analysis in response to research questions. Therefore, a thematic analysis framework was deemed to be the most suitable tool in this case (Smith 2011). The interrelated steps within the framework method clearly describe the processes that guide the systematic analysis of data from the development of descriptive to explanatory accounts. This approach identifies the key, repeated and most significant issues (barriers and facilitators to TQM implementation in Jordanian hospitals) recognised as themes emerged from the body of collected evidence (Ritchie and Lewis, 2013). It also reflects the chief ideas and conclusions across the body of evidence and explores what is prominent (Smith and Firth, 2011).

Finally, thematic framework analysis offers robust and flexible matrix results or outputs, which provide an opportunity to analyse further data on case studies and themes (Tobin and Begley, 2004). Thematic frameworks are commonly utilised in a wide range of studies where there are complex bodies of evidence (Ellis, 2010).

The analytical process commences while the researcher is listening to and transcribing audio-recorded interviews, followed by reading the transcriptions repeatedly, so that the researcher becomes immersed in the data. This involves coding the data - a common inductive technique, whereby the data are reduced into a smaller number of themes, guided by the research objectives and interview schedule (Corbin and Strauss, 2008). The key themes are listed in columns with each participant assigned to rows - a process usually facilitated by computer-assisted qualitative data analysis software, such as Word tables. Here, the thematic framework enabled within case analysis of Hospitals A and B (see 6.5 and 6.8), followed by between-case analysis (see Section 6.11), where the Case Studies were compared to identify their similarities and differences. In short, the thematic analysis framework is considered to be comprehensive and to permit a complete rather than partial or selective review of the material gathered (interviews, document reviews and observations).

This method was designed to facilitate the exploration of the qualitative data in a systematic staged-approach moving from organising the data to summarising and finally to interpretation within a thematic framework.

move back and forth between different levels of abstraction without losing sight of the raw data"

Table 5.11: Phases of the framework approach to data analysis (adopted from Ritchie and Lewis, 2013)

Phase	Description
Familiarisation	Transcribing and reading the data
Thematic framework	Initial coding framework via an <i>a priori</i> and familiarisation phase
Indexing	Thematic framework applied to the data via codes that correspond to different themes
Charting	Creating thematic charts for each theme across all the respondents, or case charts for each respondent across all themes
Mapping and interpretation	Searching for themes, associations, concepts and explanations in the data via visual aids.

5.8 Inductive Thematic Framework Analysis

To obtain new knowledge, two kinds of approach are possible, namely inductive and deductive approach. These methods are totally different from each other and are selected according to the needs of the investigators while conducting their studies. For example, inductive reasoning is a process of building theory, which commences with observations of specific examples that enable generalisations to be made about the phenomenon under enquiry. Meanwhile, deductive reasoning is a process of theory-testing, which begins with an established theory or generalisation, followed by an attempt to discover whether it is applicable in a particular case. A two pronged deductive and inductive approach was chosen for this study, since it was deemed effective for gaining an understanding of the findings, making inferences and drawing conclusions.

Furthermore, the present researcher made a decision about the depth to which the themes would be conceptualised, according to the work of Boyatzis (1998), who ascertained levels of thematic analysis as being either semantic or latent. For example, the semantic level of a theme looks at meaning from a superficial level and does not look beyond what is stated by the participants or presented in writing. However, a latent level of thematic analysis examines the underlying ideas or assumptions in the data, including their interpretation and description. In the current study, the data were analysed at a latent level, which is congruent with the constructivist paradigm. In short, an inductive thematic framework

was applied, with a latent level of data analysis. The diagram (see Figure 5.3) presented below, adopted from Ritchie et al. (2013), outlines this thematic framework, while the following section presents a step-by-step description of the process.

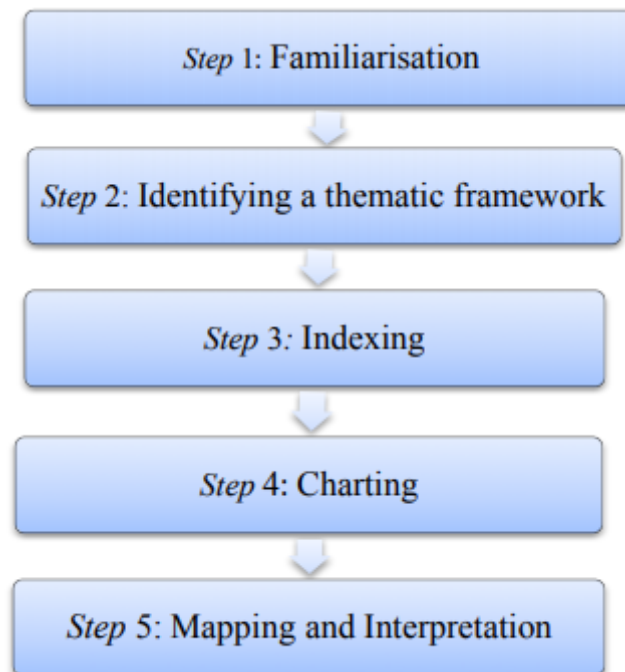


Figure 5.3 : Phases of analysis for the face-to-face interview process (Ritchie and Spencer, 2002).

The analysis was carried out merging deductive and inductive methods applying the approaches recommended by Ritchie et al. (2013). In the first step of the analysis, the researcher used an inductive thematic analysis permitting themes to arise from the data. the themes developed from interviews, documentations and observations as the following:

- Firstly, the interviews, documentations, and filed observation notes were read to gain familiarity with content.
- Secondly, data were coded for latent meaning.
- Thirdly, codes were utilised to generate themes and were assigned to the “barriers” category and “facilitators” category for each cases studies see Chapter 5.

Then, in the second step, a deductive approach was used by mapping the emerging themes to the Normalisation Process Theory (NPT) constructs (when applicable) to develop a deep understanding of the barriers and facilitators to TQM implementation practice from staff participants in Jordanian hospitals. Details are offered in Sections 5.11.3 and 5.11.3.1.

5.9 Research Approach and Data Collection Techniques

This section of the chapter presents the data collection procedures. It includes five subsections concerning the case study protocol, the development of the interview schedule, ethical approval information, the pilot interview, data collection methods, the semi-structured interviews, data collection from document review, data collection from observations, and data documentation and storage.

5.9.1 The Case Study Protocol

A case study protocol is deemed to be important for research designs involving multiple case studies, in order to improve the reliability of these studies. The use of a case study protocol therefore makes a positive contribution to a study's reliability and should ideally include an introduction to the case study and the purpose of the protocol, the data collection procedures, an outline of the case study report, high-level case study questions, and any references. Pilot case studies (see section 5.9.4) can be used to refine the "data collection plans with respect to both the content of the data and the procedures to be followed" (Yin, 2015, p.92).

The field research procedures undertaken for this current study include applying for ethical approval from the University of Nottingham and approvals from the two Jordanian Hospitals selected as the research site (more detailed in section 5.9.3). An assurance of confidentiality was also important for gaining the cooperation and trust of the interviewees. To establish confidentiality, the researcher sent a cover letter to each Hospital, outlining the researcher's background, presenting the research objectives, and requesting permission to interview and observe staff members and access Hospital documents (see Appendix 3). The researcher also provided each interviewee with a Consent Form to signify their agreement to participate in this research. Finally, the researcher developed specific questions for the data collection, conforming to the research question (see Appendix 1).

5.9.2 Development of the Interview Schedule

Interviews not only provide the researcher with rich and detailed qualitative data, but also enable an understanding of the interviewees' experiences to be gained, as well as exploring how they describe those experiences and create meaning from them (Rubin and Rubin, 2012).

The interview questions were developed from two sources. The first of these consisted of a review of the pertinent literature on TQM implementation in healthcare organisations worldwide and numerous textbooks. As evidenced in Chapter 2 and Chapter 3, this enabled the researcher to comprehend the basic principles of TQM implementation and to develop interview questions that would be suitable for collecting data related to the aim and

objectives of this current study. The second source consisted of normalisation process theory (NPT), primarily drawing upon May and Finch (2009) and May et al. (2007) and the questions available in the Normalisation Tool Kit, which is available free of charge online at <http://www.normalizationprocess.org/npt-toolkit.aspx>. As mentioned earlier in Section 4.5 the researcher utilised NPT as a heuristic device to review the context in which TQM would be implemented; identifying the questions relating to TQM implementation across the four NPT constructs (see Table 4.2 in Section 4.5).

Specific attention was paid to Creswell's (2013) recommendations on developing the interview schedule, as presented in Table 5.12.

Table 5.12 : Key recommendations for developing interview questions in qualitative research (adapted from (Creswell, 2013))

- | |
|--|
| <ul style="list-style-type: none">▪ Ask no more than five to seven sub-questions, in addition to central questions▪ Relate the central questions to the specific qualitative strategy of inquiry▪ Begin the research questions with 'what' or 'how' to convey an open and emerging design▪ Focus on a single phenomenon or concept▪ Use exploratory verbs that convey the language of the emerging design, but avoid directional words▪ Expect the research questions to evolve and change during the study, in a manner consistent with the assumptions of an emerging design▪ Use open-ended questions without reference to the literature or theory, unless otherwise indicated by a qualitative strategy of inquiry▪ Specify the participants and research site, if not already provided. |
|--|

A draft of the interview questions was thus developed by the researcher and then reviewed and discussed numerous times with the researcher's academic supervisors, who hold expertise in the use of qualitative research approaches (Ritchie et al., 2013). This was to ensure rigour and trustworthiness in the interview content. General exploratory questions about the respondents' roles were formulated, followed by more focused semi-structured questions, specifically addressing NPT constructs.

Following feedback from the pilot interviews (see Section 5.9.4), some of the questions were adjusted. The final list of interview questions was then accepted, with the main interview schedule comprising 14 questions, seeking to explore barriers and facilitators of TQM implementation in Jordanian hospitals (see Appendix 1).

The sets of interview questions were essentially developed to gather data in relation to the study aims and objectives. Each of the key questions scheduled in Appendix 1 had

prompts to permit the researcher, as the interviewer, to adapt the schedule as required, guide the direction of each interview, and probe for and develop the interview responses.

The interview guide was headed by a summary description of the study aim, followed by the schedule, consisting of 14 questions. The order of the interview schedule ran as follows: preliminary questions on demographic and background data, establishing each interviewee's situation (name (code), position, qualifications, date of employment and area of speciality). Second, it contained a welcome statement, with a form for gaining consent to begin the interview. The researcher subsequently continued with an open-ended question: "Why did your hospital opt for TQM implementation"? This was to explore the reasons for TQM implementation and the opinions of the Hospital managers, nurses and doctors about the TQM quality programme. The remaining questions shaped the main body of the interview protocol and were aimed at gaining a clear picture of the barriers and facilitators to TQM implementation in the two Case Study Hospitals, as well as a deep understanding of the barriers and facilitators bearing upon the success of TQM implementation in Jordanian hospitals.

5.9.3 Ethical Approval

In this section, the researcher will outline the ethical issues considered in the present thesis, including the process of obtaining ethical approval from the recruited Hospitals. This section also highlights the ethical principles followed by the researcher during the research period to mitigate the risk of potential harm. These included preserving confidentiality, ensuring anonymity and obtaining informed consent. Furthermore, this section addresses the ethical issues that emerged during the process of gathering data via interviews with the participants, the review of Hospital documents, and observation.

Ethical approval to conduct this study was sought and obtained from the relevant Committees at academic, and government level. These Committees consisted of the Faculty of Medicine and Health Sciences Ethics Committee of the University of Nottingham and the Ethics Committees at Hospitals A and B in Jordan.

To ensure that the researcher only contacted participants who wished to take part in the current study, the Institutional Review Board (IRBs) at both Hospitals initially contacted staff (managers, nurses and doctors) to ask if they would be willing to participate. The Institutional Review Board (IRB) then provided the researcher with the email addresses and phone numbers of staff who met the eligibility criteria and who were interested in participating in the study (see Figure 5.4). Consent Forms and Information Sheets were distributed to prospective participants, based on their interest in taking part in this study. The participant Information Sheet contained details of the research study and the methods

that would be used to collect and analyse the relevant data, and then the purposes for which these data would be used. Likewise, the participants were informed that they had the right to withdraw from the study at any time. The researcher gave the participants written contact details, in case they needed more information. In addition, the researcher asked the participants to sign a Consent Form on the day of the interview, emphasising that the participants' needs took priority over the study and data collection.

The confidentiality of the interviewees' identity and information, as well as that of their respective healthcare department, were preserved by utilising codes instead of their actual names. The interviewees were informed that all the data (the recorded interviews) were to be securely stored on audio-tape and on the researcher's laptop. These data would only be accessible to the researcher, as they would be password-protected. Moreover, the transcribed interviews would be exclusively available to the researcher and the primary research supervisors throughout the entire research study. They would also be anonymised and safely stored in a locked Filing Cabinet.

Finally, it was stated to the interviewees that the data obtained through this research would not be utilised in any way against another participant in the study. Rather, the data would only be utilised to explore TQM barriers and facilitators. This was important to facilitate open and honest communication within the context of a Jordanian hospital hierarchy.

5.9.3.1 The Process of Obtaining Ethical Approval

Ethical considerations are considered crucial in any type of study (Miller et al., 2012). Ethical considerations of academic integrity, honesty, transparency, mutual respect, confidentiality and trustworthiness will therefore be observed to preserve the rights of the informants participating in this research. Particularly in health studies, the specificities of each study should be outlined and followed, while anticipating, avoiding or reducing any possible risk to the volunteers (Orb et al., 2001).

It is compulsory practice for any researcher at the University of Nottingham, who requests to undertake a study or gather data from human participants in a hospital environment, to apply for ethical approval from the University of Nottingham Ethics Committee and also from the Hospital Ethics Committees themselves (see Figure 5.4). Therefore, an application was first submitted to the University of Nottingham, before embarking on this research study. This application included an overview of the research topic, aim, objectives, research question, methodology, data collection period, intended respondents, sample size, intended region and the Hospitals selected. Consequently, ethical approval was obtained from the University of Nottingham Ethics Committee (Reference number: 141-1710) (see Appendix 3), as mentioned earlier. Throughout the current study, the researcher sought

to conduct himself in an ethical and professional manner, being mindful that he would be party to sensitive information, particularly by virtue of the interviews; the obtaining or accessing of certain Hospital documents, and the observation of how staff apply TQM principles and standards in those Hospitals. Based on this, the researcher was bound by a professional code of conduct, central to which were the requirements to respect and uphold confidentiality and to act in an ethical manner.

The researcher had previously submitted the eligibility criteria and other relevant information about the study and researcher to the IRBs at both Hospitals. After meeting separately with the IRB teams at Hospitals A and B to conduct an in-depth discussion about the research project and its methodology, the application was approved by the IRBs at Hospitals A and B in Jordan, on the condition that ethical approval would be received from and evidenced by the University of Nottingham. This was approved by University of Nottingham Medical School Ethical Committee (see Appendix 3).

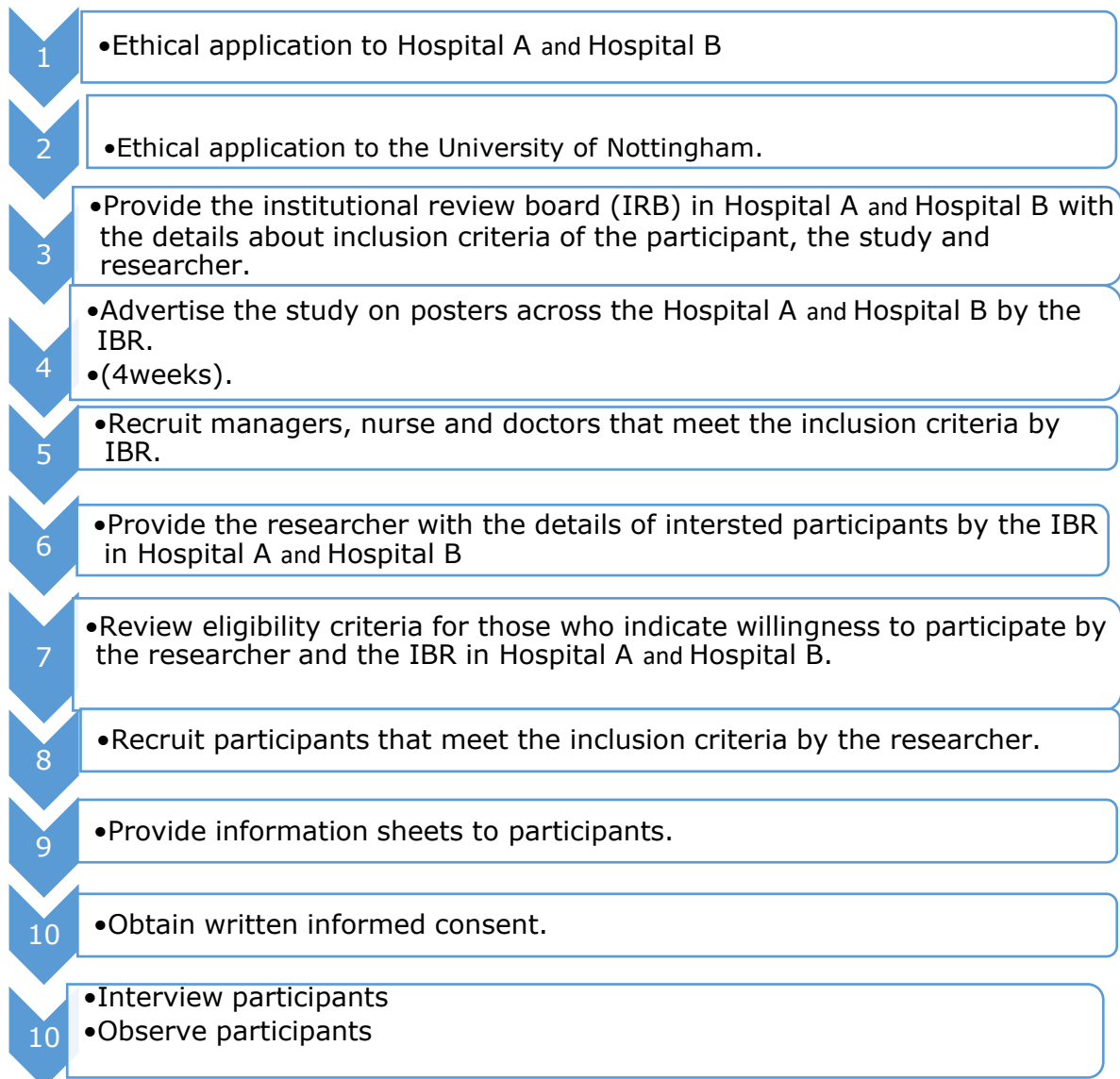


Figure 5.4: participant's recruitment and ethical approval process

5.9.3.2 Ethical Considerations

It is essential to maintain the highest ethical standards when conducting research (Saunders et al., 2009). There were several ethical issues to consider while gathering data. All the information gained in this study, such as the information obtained from the interviewees, from the hospital documents and through observation was subject to the anonymity and confidentiality of the participants.

The participants' consent was obtained and Information Sheets distributed to those interested in taking part in this study, giving details about the research and its methodology. The participants were informed that they had the right to withdraw from the study at any time. The researcher also included written contact details, in case the

participants needed more information. In addition, the participants were asked to sign a Consent Form on the day of the interview, as explained earlier in this chapter Section 5.9.3.

The confidentiality of the interviewees and their respective healthcare organisations was preserved by using codes instead of their real names. The interviewees were informed that all the data (the recorded interviews) were to be securely stored on audio-tape and the researcher's laptop. The data were accessible exclusively to the researcher, as the files were locked with a password, and the transcribed interviews were only available to the researcher and his primary research supervisors, throughout the entire period of the study. These data were stored anonymously and protected in an anonymised form in a locked cupboard. Finally, the interviewees were informed that the data obtained through this research would not, by any means, be utilised against any party involved in the research, but would instead be utilised to explore barriers and facilitators in the context of TQM implementation in Jordanian hospitals, more specifically, Private and public hospital in Jordan.

All data would therefore be anonymous and confidential, with the exception of the information revealed during the interviews, which was a matter of concern that might need to be reported, i.e. the potential risks to another person or to the researcher. Participants were therefore made aware that if a matter of risk was disclosed, the researcher would have to report these issues to the Hospital managers and other authorities.

5.9.4 The Pilot Interview

It has been stated that the key aim of carrying out a pilot study is to assist the researcher in refining any design issues in the question format, content and interview procedure. For Ghauri et al. (1995)

“ A pilot study is the test that checks the understanding of the interviewee regarding the research problem and interview questions, and such pilot research also provides first-hand insight into what might be called the 'cultural endowment' of the informants.”(p.66).

Before conducting the main study, the present researcher undertook a pilot interview with multidisciplinary professionals, employed as managers, nurses or doctors in one government-funded and one private hospital. The researcher consequently conducted 10 pilot interviews, five in each Hospital from the different participant groups. The interviews were recorded using a digital voice recorder. The duration of the interviews varied slightly in length, with the shortest interview lasting 40 minutes and the longest, 45 minutes. In addition, pilot interview were carried out to ensure that the questions in the interview guidelines were clear and could be understood immediately.

A pilot interview gives the researcher an idea of the desired clarity and length of the questions, the time required for the interviews, and any repetition within or between the questions. In the present case, the pilot study was revised very carefully, in order to evaluate the efficiency of the interview schedule, especially in terms of the flow of questions and the time taken to work through them. Furthermore, this pilot study gave the researcher an opportunity to rehearse his interview skills, as well as determining the suitability of the audio-tape recorder and its quality. Additionally, the pilot interview was a valuable exercise and a good lesson to learn, particularly concerning time management and preparing for the actual interview. Discussion with the participants and the researcher`s supervisors following the pilot study revealed that there were no major changes to be made.

Nevertheless, some modifications were made to certain terminology, such as in Question 9, concerning the tool used to enhance the employees' participation 'in the process'. This question was found to be unclear and ambiguous. Thus, it was amended to include the staff' involvement 'in the TQM process', which was then more easily understood by the participants. Besides, the researcher received informative feedback with respect to his

communication skills. This feedback was taken into consideration in the actual face-to-face interviews.

After carrying out the pilot interviews, the researcher spent a few days reading the responses to ascertain whether the list of questions had been credible and appropriate for gathering the desired information. This process helped with a primary analysis of the answers, which were constantly referred back to the research aim and objectives, in order to confirm that adequate information would be gathered from the actual interviews. However, the information obtained from this pilot interview was not used in the actual analysis of the qualitative case study, as the interviewee had not met the selection criteria.

5.10 Data Generation

5.10.1 Data Collection Techniques

In this part of the chapter, the researcher will explain the methods applied in the current study. This will include a detailed description of the recruitment of the participants and the process of undertaking the fieldwork. A description of the data management and analysis will also be provided. As discussed earlier, a case study method was adopted for this study, concentrating on the barriers and facilitators to TQM implementation in Jordanian hospitals. The data were gathered using

- 1- Semi-structured interviews
- 2- Reviews of hospital documents
- 3- Observations

5.10.1.1 Semi-structured Interviews

For the current research study, face-to-face interviews were selected as the method of collecting data from two Case Study Hospitals. This began after obtaining the essential ethical approval. The researcher advertised the study on posters distributed across Hospitals A and B, with IRB staff, managers, nurses and doctors all being contacted by email to ask if they would be willing to take part. However, the poster and email communications clearly stated that participation was wholly voluntary. Moreover, the prospective participants were duly informed of the research aim. Any participants who were willing to be interviewed were then sent an email form, indicating that the respondent had agreed to take part and giving an opportunity for the researcher to arrange an appointment for the interview. Interviews were arranged and conducted sequentially per hospital by the primary researcher, beginning with Hospital A, followed by Hospital B between December 2017 and March 2018.

In order to carry out the interviews in a timely manner and give the participants enough notice to fit them into their schedule, the researcher contacted potential participants at least one week before the period when the interviews were to take place. At this point, an appropriate time and place was agreed upon. Each interview was completed according to these arrangements, without any difficulty and with no complaints being received (Legard et al., 2003).

With respect to preparing for the actual interview, the researcher arrived at least 30 minutes before the interview at each Hospital, so as to arrange the seating; ensure that the necessary documents were laid out; test the audio-recorders, and attach a 'Do not disturb' sign on the meeting room door. On arrival, the researcher welcomed and thanked the participants for assisting with the research, which served to establish an initial rapport. The researcher recapped the aim of the interview and then continued to outline the function of the interview protocol, which McCracken (1988) cites as a useful means of clarifying the interview rationale and a tool for obtaining informed consent (Sekaran, 2003)(see Protocol in Appendix 1).

Most of the interviews were performed in offices or meeting rooms in the hospitals, in either the morning or the afternoon. All the interviews were carried out in a quiet and convenient environment. The researcher also remained mindful of the respondents' time limitations when conducting the interviews. The Letter of Confirmation for participation had indicated a maximum interview time of 60 minutes and so the researcher sought to cover all the questions in the interview guide and incorporate scope for further probing, if necessary, within that timeframe.

The interviews ultimately varied slightly in duration, with the shortest being 40 minutes and the longest, 45 minutes. In each interview, the researcher spent the first 10 minutes clarifying the background to the research, such as the study topic, research gap, support for the study, and the research aim and objectives in layman's terms. Prior to the start of each interview, the participants' permission was obtained to audio-record the interview. The researcher also guaranteed that any data gathered would be used solely for academic purposes and would remain fully confidential. The interviewees were then given another opportunity to read the participant Information Sheet and highlight any issues that they may have. The participants and the researcher then signed the Consent Form, giving permission for the interview to be recorded and covering the future use of the transcripts. Each interview was then digitally recorded. Audio-recording not only facilitates data analysis, but is also a means of releasing the researcher from having to take notes, so that he can participate fully in the interview and follow up any important points that arise

in the process. The wider subject of interest was subsequently introduced in the Questions outlined in Appendix 1.

Participants were then asked to express their views on TQM implementation; commenting on the current study objectives in the context of their experience at the Case Study Hospitals. They were also given the chance to talk about further issues related to the barriers and facilitators associated with TQM implementation, which they felt were significant.

Aside from the Questions, the researcher encouraged the participants to develop their answers by using prompts. This took the form of nodding in affirmation, or a simple interjection like 'Uh-huh', 'Yes' or 'How interesting!'. At other intervals, the researcher used questions such as 'How?', 'Why?' and 'And then?' Finally, the researcher sometimes directly asked the participants to extend their answers on any issues raised, such as resistance from doctors, or the shortage of time and staff. At the end of each interview, the researcher once again thanked the participants for taking part in the study and giving their time. A further follow-up letter reiterated this, as well as the confidential nature of their responses. Moreover, all the interviews were carried out in Arabic, as it was the first language of all the participants and the researcher. This allowed the participants to voice their opinions easily and clearly.

The findings from these interviews helped construct a complete picture of TQM implementation in public and private-sector hospitals in Jordan, including the barriers and facilitators involved. Since the researcher also deals with these issues as part of his daily work, he was confident in the accuracy of the interview data. While it is difficult to assess the honesty and accuracy of interviewee responses, the overall impression gained was that the participants were generally reflective, amicable and open, giving generously of their time and cooperation. Indeed, they mostly appeared to be interested in the study.

As mentioned previously, in section 5.6.4, the researcher continued to gather data from the participants to the point of redundancy. Where the data collection continued until data saturation was achieved in this selected of interviewees in two Case Studies Hospital A and B. As the final interviews were conducted in both case studies, no new or relevant data emerged with respect to the research's question (Bryman, 2008). The data saturation was realised for the overall sample after 30 interviews in for current study (13 interviews were conducted in Hospital A and 17 in Hospital B). At this point of data collection, no new issues were emerging during the interviews at either of the hospitals. This difference in sample size across both Hospitals at the point where saturation was reached is possibly due to the difference size of these hospitals and the impact this may have had on the complexity of TQM implementation.

5.10.1.2 Data Collection through Document Review

During the interview process, the researcher had the chance to gather material relevant to the study. This material consisted of hospital documents, technical and administrative quality policies, and plans. Moreover, the researcher took significant advantage of the collaboration in Hospital A and B, where several staff members were found to be helpful and supportive, making him feel comfortable about asking to see any document required. However, it should be noted here that some documents could only be accessed and scrutinised within the Hospitals themselves and as such, the researcher made notes about them. However, gaining access to the necessary documents was not difficult in either hospital.

Data gathered from the 35 face-to-face interviews was compared with data gained from a review of Hospital documents. The review of the Hospital documents helped to balance arguments and verify data gained from other sources, (Yin, 2015, Stake, 2013). The documents reviewed concerned Hospital structure, quality manuals, policy documents, procedures and protocols, job descriptions, reporting templates for medical equipment servicing, quality reports, recommended communication methods, quality assurance (QA) manuals, training protocol quality manuals, policy and procedure manuals, internal audit and self-assessment reports, external audit and assessment reports, and minutes of Committee meetings. According to Bell and Bryman (2007), this method of documentary review permits a better comprehension of the themes emerging from semi-structured interviews, and further supports these findings through triangulation. The data gathered during the document review in this current study were stored confidentially on a password-protected database.

5.10.1.3 Data Collection through Observation

As mentioned previously, observation through partial participation was also utilised to explore the barriers and facilitators of TQM implementation in the Case Study Hospitals. Data gathered through partial-participation observation allows for a fuller comprehension of pertinent data, following face-to-face interviews and document review (Yin, 2015). This method offers a chance to observe the activities performed by staff (in this case, managers, nurses and doctors), and their behaviour in the process of TQM implementation at both Hospitals.

The purpose was to observe Hospital staff (managers, nurses, and doctors) in their workplace, affirm and also find differences the data gathered from them in the interviews, and collect any further data that might have been missed during the interviews. Additionally, this type of observation authorised the researcher to inquire about the tasks performed and why, so that answers could be related to the interviewees' comments and

the Hospital documents. The partial-participant method was valid, since it delivered insights into the nature of the phenomena observed (the barriers and facilitators of TQM implementation) (Cavana et al., 2001). Cavana et al. (2001) emphasise the helpfulness of observation techniques, since the data obtained in this way is generally reliable and free from interviewee bias. The environmental effect on specific findings is easier to note in observational studies and groups from whom it may otherwise be difficult to obtain. As a result, the information can be studied more easily.

In order to enhance the findings from his observations, the researcher's initial plan was to take part in simple nursing activities and to accompany the nurses, managers and doctors as they performed their care duties. This idea was intended to observe how they applied TQM standards and policies in their daily routines at the Hospitals, giving the researcher an opportunity to explore the barriers and facilitators of TQM implementation in the study context (Kawulich, 2005). However, according to Mulhall (2003) and Mason (2017), it is difficult to stay within the bounds of one's role throughout an entire period of observation. For instance, in some circumstances, the researcher needed to adopt the role of observer, but in others, he took on a participating role as a registered nurse by performing certain nursing tasks, such as double-checking patients' names, surgery sites, the name of the surgeon and even medication doses with the nurses. Thus, the researcher located his role within the participant-observer continuum, based on the situation and his ability to fulfil both roles (Mulhall, 2003, Mason, 2017, Patton, 2002).

On the first day of the observation, the researcher was greeted by the head of each department at the two Case Study Hospitals, who then introduced the researcher to the nurses and doctors. The relevant managers or supervisors at each Hospital explained the basic functions and roles of the Hospital staff and outlined were the Hospitals' rules, health and safety protocols and policies.

5.10.1.4 The Observation Period

The observations continued for seven weeks at each Hospital between the months of January 2017 and February 2018, beginning in the first week of January and ending with the last week of February (see Table 5.14). The overall duration of the observation period was therefore prearranged for a period of 7 weeks. Moreover, the researcher spent a preliminary observation period of around one week in the operating theatre at each Hospital from 10th to 17th January. This was very beneficial for getting to know the Hospital staff, building relationships and gaining an understanding of the TQM policies and standards implemented at each Hospital. In this respect, informal discussions and socialisation between the Hospital staff and the researcher were supportive and helpful to

the current research study (Balsiger and Lambelet, 2014). The researcher carried out observations for three to five hours at various times of day, in order to enable him to capture a wide range of staff activities in each Hospital. However, an observation period of more than seven full weeks at each Hospital was not possible for several reasons. Firstly, the timeframe form for the data collection was constrained to three months. Moreover, the employees' in Jordan is not familiar with such approaches, and so was hesitant to pursue this method for an extended period of time. Finally, the process of data collection was interrupted by the emergence of the season of winter, and Christmas and that meant the working environment was slower than usual. Even though the interviews began in 7th December to 15th December 2017, the process stopped for three weeks (from 23rd December 2017 - 5th to January 2018). It is also important to note the limited resources (time, manpower) for the study, which made it difficult to pursue a further period to collect data from observation methods. The observation protocol contained information such as the week and time of the observation, location, observations made and interpretations of these events (see Table 5.13 and Appendix 2 as an example).

Table 5.13 : An example of a field note Hospital A

<i>Date: Wednesday 10th February 2018</i>	<i>Time : 10 Am to 11 Am</i>
<i>Location: Hospital A (meeting room)</i>	<i>Event: meeting</i>
<p><i>During this meeting I witnessed that the administration manager, heads of all departments, 3 Quality management office, registered nurses, pharmacies, and technicians, receptionists and administrations attended the meeting from 10am to 11 am on Wednesday 10th February 2018. the attendance discussed the following point:</i></p> <ul style="list-style-type: none"> <i>• Progress of the electrical safety testing programme</i> <i>• general quality issues such as reworks, patient`s family complaints related to shortage nurses in male wards and ICU</i> <i>• training of new nursing.</i> <i>• Doctors issues such as records and traceability, incomplete paperwork</i> <i>• general discussions on training, internal audits and annual leave</i> 	

The protocol conformed to the observation guide adopted by Creswell (2013). Table 5.14 presents the observation schedule for both Hospitals, applied according to a comprehensive strategy, as the researcher only had a general idea of the issues that he would gather data about. However, subsequent to this data-gathering process, the

research became more focused on specific issues; recording how staff applied TQM standards in patient care, as well as noting any other information of interest to the study.

Table 5.14: Observation schedule for the two Case Study Hospitals

Weekdays	Hospital A	Hospital B
1 Monday-Wednesday	8.00 am-11.00 am Staff handover and meeting time)	1.00 pm-3.00 pm Staff handover and staff meeting time
2 Monday-Tuesday	8.00 am-10.00 am Staff handover and staff meeting time	11.00 pm-3.00 pm Permission from hospital to observe during preparation of the patient for surgery by staff
3 Sunday-Tuesday	1.00 pm-3.00 pm Staff handover and permission from hospital to observe during preparation of the patient for surgery by staff	9.00 am-12.00 am Permission from hospital to observe during preparation of the patient for surgery by staff
4 Sunday-Tuesday	1.00 pm-3.00 pm Staff handover and permission from hospital to observe during patient-staff interactions (e.g., medication rounds; discussions)	8.00 am-11.00 am Staff handover and permission from hospital to observe during preparation of the male patients for surgery by staff
5 Tuesday -Wednesday	09.00 am-11.00 am Staff meeting time and permission from hospital to observe during patient-staff interactions (e.g., medication rounds; discussions)	2.00 pm-3.00 pm Staff handover
6 Tuesday-Thursday	2.00 pm-3.00 pm Staff handover	9.00 am-1.00 am Staff meeting time and permission from hospital to observe during female patient-staff interactions (e.g., medication rounds; discussions)
7 Tuesday -Wednesday	09.00 am-11.00 pm Staff Meeting time	1.00 pm-3.00 pm Staff Meeting time

5.10.2 Documents and Storage

The data from the interviews, documents and observations in this study were held in a database of primary data, with a soft and hard copy of a separate file for each Hospital.

These documents included the interview notes, audio-recordings of the interviews, transcripts, data obtained from the Hospital documents, and any observations produced while gathering the data.

5.11 Approach to Data Analysis for Case Studies A and B

In this section, the researcher will outline how data gathered from multiple sources were analysed. In the current research, the researcher matched themes and adopted strategies of comparative analysis in tandem. These methods involved looking for repeated themes in the Case Study data to identify and link similarities between different empirical patterns from each data source (Creswell, 2013). The data were descriptive in nature and required a methodical technique of addressing the massive quantum of free-flowing text. Various data collection techniques enabled the researcher to combine (triangulate) the data. The credibility and validity of the results were maintained by this triangulation of data from various sources, using cross-case analysis.

Data analysis started during the early phases of gathering data. The current study utilised constant comparison to analyse the data a method common to qualitative studies, and one, which is based on an inductive, comparative method (Creswell, 2013). The researcher was comparing the data findings obtained from the interviews with the data obtained findings from documentations and observations.

5.11.1 Treatment and Management of the Data

Data management is often deemed to be the main challenge in a multiple-case study, as the researcher may have far more information than he or she can deal with (Merriam and Tisdell, 2015). Consequently, once all the Case Study data had been collected, the present researcher checked and recorded the data resources in his own folder, so it would be easily accessible at any time. This method ensured that the Cases were separated out and could not be confused, as well as preventing the individual contexts and stories relevant to each Case from being mixed up or overlooked. These documents and data were saved onto the researcher's computer and password-protected, so that access to them was restricted solely to the researcher. A separate copy of the dataset was also saved onto an external drive also password protected to avoid any problems such as damaged memory sticks or a computer crash.

5.11.2 Transcribing and Checking the Transcripts

Transcription is an excellent way for researchers to familiarise themselves with their study data (Riessman, 2003). The transcription process is in fact seen as a crucial stage of data

analysis in interpretative qualitative studies (Bird, 2005), as it helps researchers gain insights into what is going on in the data (Merriam and Tisdell, 2015). However, one of its disadvantages is that it is time-consuming (Lapadat and Lindsay, 1999). Nonetheless, the interviews were transcribed verbatim by the researcher. Transcription began immediately after the interviews had been carried out, in order for the researcher to become familiar with the research data (Riessman, 2003). In an interpretative qualitative study, the transcription process is seen as the main stage of data analysis (Bird, 2005), as mentioned above. Transcription can take five to six hours per one hour of audio-recorded material (Bell and Bryman, 2007). In the present study, the transcription process consumed approximately 12 hours for every hour of talking, as it not only involved transcription into a Word document, but also translation from Arabic into English by a professional translator. Despite this, implementation of such a process meant that there was minimal risk of the analysis being compromised, which could have occurred, if the data had been collected in a language that was not the researcher's mother tongue (Arabic).

The researcher therefore began analysing the interviews in Arabic, as they had all been conducted in Arabic (Van Nes et al., 2010). This enabled him to grasp the real meaning behind certain expressions used by the interviewees, which was especially useful in the phases of data interpretation and analysis. Once this had been achieved, the analysis began. Each interview for two Cases Studies Hospital A and B was referenced by the researcher utilising a code number, 1 being the first and 20 being the last. Two transcriptions were selected from each Case Study Hospital A and B and translated into English by an English translator. The translations were then compared with the original Arabic transcripts by the researcher to verify that there were no distortions or missing data. The interviews were checked and rechecked, comparing the transcripts with the audio-recordings to ensure that they were accurate and complete. Once this had been achieved, the analysis began. The researcher and two staff members from the relevant research nursing department performed this process independently to confirm of emerging themes. The next step involved applying the framework method described by Ritchie et al. (2013) and illustrated in Figure 5.5, below.

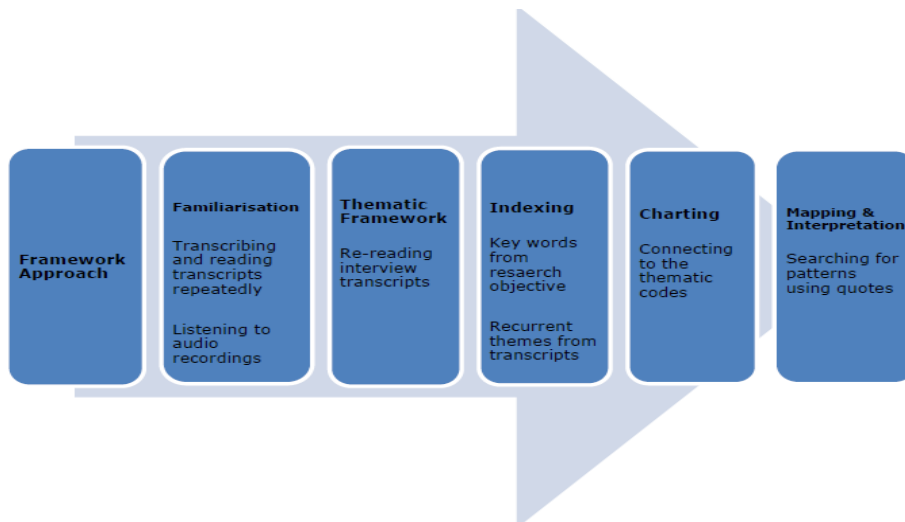


Figure 5.5 : Framework for thematic analysis (Ritchie et al. (2013))

As mentioned earlier, framework analysis is most usually utilised for thematic analysis qualitative cases study research and is particularly appropriate for study which use face to face interviews, documentary and observation collection data with predefined aim and objectives, consistent with the present study design (Ritchie et al., 2013) . Ritchie, Lewis et al (2013, p. 220) explained that, “The analysis method framework is a matrix based, analytic method which facilitates rigorous and transparent data management such that all the stages involved in the analytical hierarchy can be systematically conducted. It also allows the analyst to move back and forth between different levels of abstraction without losing sight of the raw data”. It consists of five phases (Elkington et al. 2004; Adams et al. 2012; Hanratty et al. 2012) see Table 5.15.

Table 5.15: The framework analysis process for the present study (Ritchie et al. (2013))

Phase	Description
1. Facilitation with data	immersion in the raw data
2. Identifying a thematic framework	drawing on a priori issues and questions as well as issues which are raised by participants themselves, in order to examine and reference the data
3. Indexing	applying the thematic framework to all the data
4. Charting	grouping the data according to the part of the thematic framework to which they relate using distilled summaries linked to transcripts via page numbers or hyperlink
5. Mapping and interpretation	mapping the range of phenomena and, where appropriate, creating typologies and/or finding associations between themes with a view to providing and explaining

Documentations and Observational data are useful for comparison. In face-to-face interviews, participants can feel pressurised to provide information, which they think the researcher wants. Observation methods can tell the extent to which what you have been told is what is actually happening.

5.11.3 Data analysis

In the current study, the documentation and observation data provide beneficial tools of comparison, confirmation, support and also rejection for findings of the interviews. At the beginning of the current study, it was expected that the documents and observation data would be analysed separately and that the same methods used to analyse the face-to-face interview would be applied to these data. However, the process of analysis required some revision. The final decided method was to index documentation and observational data with interview data and code using framework thematic analysis.

For both documentation and field note data, the process started with familiarisation, reading and re-reading the data to get a feel for what it was saying. Through this, the researcher was able to develop sensitivity to the data and identify which ideas fitted with existing themes emerged from the framework. A coding framework was used for the

documentations and observation data using the theme codes. As indexing progressed, the framework was modified to include any emergent codes or themes, or to rearrange themes. In order to ensure credibility and trustworthiness of the analysis the whole process of applying the framework to the document and observation data were discussed regularly between the researcher, the academic's supervisors and two staff members from the relevant research department.

An inductive approach was taken to the thematic analysis through an iterative process of open coding followed by refinement of themes. Coding using the Framework approach was dynamic and open to modification throughout the analytical process, which offered great flexibility for the researcher (Srivastava and Thomson, 2009). This allowed for analysis within the same theme and among themes allowing for comparisons and associations across the data set. A summary of the procedures for data analysis for this study is offered in **Error! Reference source not found.** below; more details are discussed in the next section 5.11.3.1.

5.11.3.1 Stages of the Thematic Analysis Framework (Ritchie et al. (2013))

1. Familiarisation with the Data:

The researcher immersed himself in the data, in order to actively learn about the underlying responses and thus enhance the depth and breadth of his understanding of the content. To achieve this, he began with repeated listening to the interviews and carefully and thoroughly read and re-read the interview transcripts line-by-line, word-by-word, and phrase by phrase. Also reading and re-reading, documentations and the observation notes.

2. Identifying a Thematic Framework

This step in the framework analysis is commonly referred to as 'coding' in qualitative methodologies. It essentially involves identifying the main themes embedded in the interview transcripts. Each transcription is consequently read line by line to find the key words or meanings of concepts relating to the study aims, namely to explore the barriers and facilitators to TQM implementation in Jordanian hospitals. The researcher therefore read through the transcripts, naming or coding each line of text.

In the beginning of the analysis, the researcher was open to any segment of data that might be useful; this form of coding is often called 'open coding' (Merriam and Tisdell, 2015). The researcher coded each segment of data that was relevant to, or captured information about, the research question (barriers and facilitators associated with TQM implementation in hospitals). The researcher did this by hand initially, working through hardcopies of the transcripts with pens and highlighters. See Appendix 6 which shows an example of the coding of data from interviews of Case study hospital A. Two health science

post-doctoral staff members (from the same Department), independently of the researcher, coded the data following this same process.

The researcher and the same two staff members independently grouped together similar codes into themes. They then met to discuss the themes and agree on a final framework. Nine themes were identified to form the final framework (see Table 1 column 1 in Appendix 7). This was a process aimed at ensuring reliability and avoiding inconsistency. The full thematic coding framework is shown in Appendix 7.

As mentioned previously, in inductive studies, 'open coding' takes place (Gale et al., 2013), as in the present study. There were three reasons for applying this technique here: first, to begin the unrestricted labelling of all content and information and to assign representations. Secondly, conceptual codes for each incident were highlighted within the data (Douglas, 2003). Finally, as recommended by Gale et al. (2013), themes were derived from the data using open (unrestricted) coding, which revealed that statements made by the respondents contained data that could be coded under more than one theme. For instance, one interviewee's response to an interview question concerning barriers to TQM implementation was broken down and coded under two different themes, as displayed in as displayed in Table 1 in Appendix 7. For example, **Interviewee M2** stated:

...I believe that one of the successful methods of overcoming doctors' resistance during the process of TQM implementation is that all doctors and other staff in the hospital work as one family, focused on achieving TQM. Although the hospital has a lot of challenges related to the involvement of doctors from outside the hospital in TQM implementation, due to issues in the hospital's system, the managers and the top level administration always encourage our staff to work with them as a team in our hospital, following our own systems and focusing on the hospital's policies and procedures.

The above statement contains data about doctors' resistance, as well as teamwork. Therefore, it was coded under two themes: 'resistance from the doctors' and 'teamwork', as shown below in Appendix 7. The researcher and two staff members from the relevant research department performed this process independently.

A tentative framework was then developed after familiarisation and coding of the two transcripts of interviews (one from Hospital A and one from hospital B) in order to inform the forthcoming interviews. Familiarisation with the whole data set prior to developing the framework would have ensured completeness and that no data were overlooked, however, frameworks can be further developed and modified as analysis progresses and therefore

early progression in creating a framework was not seen as a constraining factor in the current study.

3. Indexing (Applying the Analytical Framework)

Indexing involves identifying portions or sections of the data that correspond to a particular theme. Accordingly, following an agreement being reached on the thematic coding framework, the fourth step in this study involved indexing. Here, the analytical framework was subsequently used to index all the interview transcripts, thereby identifying data items that corresponded to the various codes. However, throughout this process, the researcher was alert to the possibility of new codes and themes emerging from the transcripts; particularly where the private hospital (Case Study A) and public hospital (Case Study B) participants came from different professional areas (managers, nurses or doctors), and therefore differed in their experience and departments. The existing framework was consequently modified, as new themes were identified and others were combined or revised. Therefore, early progression to creating a framework was not seen as a constraining factor in the current study. An example can be seen in Appendix 7).

4. Charting the Data in the Framework Matrix

To chart the fourth stage, specific data items that had been indexed during the previous stage were arranged in charts by theme. This stage was implemented to synthesise and develop the final coding framework through a process of abstraction, in order to derive maximum detail from the data and to ensure that all elements were coded.

This fourth stage therefore entailed charting the data and extracting the relevant codes and text items from each transcript, organising them under broad themes. In these charts, each row was matched to an interviewee or Case Study (see Appendix 6 As an example), thus, this reduced the data into an understandable format and facilitating comparison within and across Hospitals A and B, and across the interviewees (managers, nurses and doctors). In order to ensure credibility and trustworthiness of the analysis the whole process of applying the framework to the data was discussed regularly between the researcher and his colleagues. Samples of the software (see Appendix 6) reports were shown to his academic supervisors to review the constructed themes. These charts were developed manually by the researcher using Word tables. An example of a thematic chart is presented in Appendix 8.

5. Mapping of Themes to Normalisation Process Theory (NPT)

The themes Identified from this study (for both Case Studies) were mapped into the four NPT constructs: coherence, cognitive participation and collective action. Barrier and Facilitators were mapped to the most relevant construct to help elucidate the main concepts and implications of each finding and related theme. An example of this can be seen in Appendix 9 from the findings of Case Study Hospital A.

All the above steps (5 steps of framework) were taken separately for the two Case Study Hospitals (Hospital A and B).

5.12 Improving Rigour and Trustworthiness

Rigour is an essential principle in any research endeavour. Without rigour, the worth or reliability of a study is compromised. Therefore, all research studies, regardless of the approach, are generally assessed by peers, readers, sponsors, decision-makers or grant providers (Krefting, 1991).

Qualitative thinkers, such as Blaxter (1996) and Schwandt et al. (2007) explain that the criteria for trustworthiness in a qualitative investigation consist of credibility, dependability, transferability and confirmability. Accordingly, the researcher employed a range of strategies and methods to ensure quality.

The researcher consequently proposes a set of criteria for evaluating the trustworthiness or rigour employed throughout the current study based on frameworks from Creswell (2013), which is outlined in Table 5.16.

Table 5.16: Quality framework in qualitative research adopted from Creswell (2013)

Quality framework	Technique of application in current study
Credibility	<ul style="list-style-type: none"> • Using of suitable research approaches • Familiarity with the culture of participating organisations • Appropriate sampling e.g. convenience and snowball • Triangulation of data sources by different participants and settings • Strategies to assist in the honesty of participants e.g. use of probing questions to elicit information from participants • Use of reflective commentary and scrutiny of project • Background, qualifications, and experience of researcher • Checks of data generated and interpretations formed
Transferability	<ul style="list-style-type: none"> • Background data and thick description of phenomenon under examination and study design
Dependability	<ul style="list-style-type: none"> • Employment of overlapping methods

<ul style="list-style-type: none"> • In-depth methodological description to allow the study be repeated • Content credibility and regular reflection of interview schedules by researcher
Confirmability <ul style="list-style-type: none"> • Triangulation of data sources to reduce effect of researcher bias • Admission of researchers' beliefs and assumptions • Recognition of limitations in methods • In-depth methodological description to allow integrity of research results be examined • Transcriptions and interview recordings reviewed for dependability by researcher

5.12.1 Transferability

Transferability in a qualitative inquiry is defined as the degree to which the evidence generated in one setting (A) can be applied or hold true in another setting (B). In scientific investigation, it is concerned with generalisability of results, however in qualitative study samples are often small and therefore not considered representative of a wider population. Bitsch (2005) proposed that instead looking for conceptual or theoretical transferability utilising thick description to illustrate the results in sufficient detail to permit conclusions to be drawn as to whether the findings are transferable to other settings. In the current study the researcher illustrated all processes deployed in this research, from gathering the data to the production of the final report. This would help any future investigators to replicate the study under analogous conditions in another setting or context. For example, the researcher illustrated the number and location of hospitals participating, participant inclusion and exclusion criteria, sample size, and data generation such as the number and length of interviews and the time period over which the data had collected to transfer the boundaries of this study (Shenton, 2004). Shenton (2004) claims that "without this insight, [thick description] it is difficult for the reader of the final account to determine the extent to which the overall findings 'ring true" (p.69). Additionally, in the current study the Results Chapters contain examples of raw data, such as direct quotes from the participants, in order for alternative interpretations to be considered (Stake, 1995; Dawson, 2009). The researcher described the methods, analysis and results in detail so the research might be readily assessed with regard to applicability to the wider general practice.

5.12.2 Confirmability

Confirmability is "concerned with establishing that data and interpretations of the findings are not figments of the inquirer's imagination, but are clearly derived from the data" (Tobin and Begley, 2004) (p.392). Additionally, it is the degree to which the study results are

influenced by the inquirer's own motivations, assumption and experiences. However, it is difficult to detach the assumptions and preconceptions of the investigator from the study itself, as the investigator is the study means and integral to the data gathering, analysis and explanation of the results. The researcher attempted to ensure the confirmability of this study using several techniques, such as triangulation, maintaining an audit trail, the limitations of the method were made clear, and promoting reflexivity throughout the research process (see Section 7.1.4). Additionally, the researcher's academic supervisors and a number of colleagues (two members of post-doctoral from health science school) scrutinised the process and production of the data analysis in this study, step by step. In so doing, the researcher attempted to circumvent misinformation, in order to avoid any scepticism about the integrity of the data on the part of the research supervisors. The outcome of this was that the research supervisors verified the explanation of the results, recommendations and conclusion, as supported by the data, but did not perceive any researcher bias or assumptions. The research's reflections are presented in the discussion chapter (section 7.1.4 and 7.1.5).

5.12.3 Dependability

Dependability in qualitative study is the demonstration that the study results are consistent. To increase the dependability of the findings of the current study, the data were coded in a similar method throughout the dataset and the data were coded by three researchers in a similar way. For instance, the researcher worked with colleagues who had experience in analysing the data and identifying codes and themes. These were then reviewed and discussed with these colleagues and with the research supervisors, as mentioned above in section 5.12.2.

5.12.4 Reflexivity

In qualitative studies, the researcher is an important instrument of the research and this leads to issues of concern arising over a study's trustworthiness, due to the subjective nature of this type of study. According to Schinke et al. (2012), reflexivity can be understood as a subjective reflection on what the researcher is doing, and how and why this is being done. According to Koch and Harrington (1998) and Hesse-Biber and Leavy (2005), the purpose of reflexivity is for the researcher to constantly apply self-critique and self-appraisal to explain if and how his or her own experiences, values and preconceptions affect the study process. Reflexivity **enhances** the quality of a qualitative study by improving the reader's understanding of how the researcher's position has affected all phases of the research process.

In order to enhance reflexivity, the researcher also utilised several techniques during this study, acting as both an interviewer and a partial-participant observer. This helped reduce any threat that the participants might have felt as a result of his presence. Firstly, reflexivity is therefore the acknowledgement of this interrelationship between the researcher and the study at all points in its execution, this being an important determinant of the confirmability of a study's results. Researchers bring their own biases to a study, including their philosophical stance and theoretical underpinnings, previous experience, personal beliefs, and enthusiasm for the research area. The philosophical stance and theoretical underpinnings of this current study are presented in Section 5.2 , highlighting the researcher`s professional background as a nurse in the Quality Management Department of a hospital in Jordan. As a result, it may be understood that the researcher has personal views, experience and assumptions about the study area and the implementation of TQM in hospitals, with a potential impact on the analysis and findings of the current research study. Besides, some the interviewees (managers, nurses and doctors) were aware of the researcher's role and may have engineered what was observed, and the researcher's interpretations of those observations, or else modified their answers to the interview questions. Secondly, the researcher attempted to ensure that the atmosphere was as natural as possible in the course of the interviews, conducting them in the respondents' offices and meeting room. All the interviewees consequently appeared to express their opinions freely and comprehensively during the data collection. Thirdly, the researcher's dual identity as an investigator and nursing manager yielded numerous benefits. For example, the researcher used his contacts within the field to gain easier access to Hospital staff, so that he could discuss TQM issues. Fourthly, the data provided by the participants was triangulated against the data gathered in document reviews and observations. This permitted the researcher to ensure that data was not lost. Each method of gathering evidence confirmed existing data or delivered further information that was missing or inadequate after using another data collection method. This meant linking and crosschecking the consistency of information derived using more than one data-gathering approach. Additionally, Using NPT to structure the analysis delivered an interesting dimension and enabled the researcher to look at the data from a different viewpoint. Using NPT assisted with a thorough interrogation of the data and the researcher felt that he was completely immersed in the interview transcripts. It also permitted him to see the data through the 'lens' of implementation; an exercise that he found extremely valuable for identifying the potential challenges facing future implementation and for facilitating the design of an online educational intervention. Moreover, during the current study, the researcher kept a meticulous audit trail for the data collection, coding and analysis, thus ensuring that the research was transparent, consistent and reproducible.

Meanwhile, as explained earlier, reflexivity represents the researcher's acknowledgement that his or her own preconceptions may impact upon a study. These preconceptions include personal views, beliefs and motives for carrying out a study. In the present work, the researcher recognised that in his capacity as an investigator, he had presumptions concerning the way in which TQM was implemented. Finally, to increase the trustworthiness of the findings, the researcher worked with a colleague who was experienced in analysing data and identifying codes and themes. These codes and themes were subsequently reviewed and discussed with the above-mentioned colleague and with the research supervisors (section 5.12.2).

5.13 Limitations of the Research Approach

It is important to identify and reiterate the limitations of any research methods employed in a study. In the present case the data gathered were likely to be prone to observer bias, recording errors, memory lapses and errors in interpreting activities, behaviours, events and nonverbal cues (Sekaran and Bougie, 2003). In particular, the use of semi-structured interviews increased the probability of bias on the part of both the researcher and the participants. However, this limitation was addressed here by comparing the interview findings with official documentation (manuals, minutes of committee meetings related to TQM implementation, audit reports and quality manuals) and direct observation at the two Case Study Hospitals. Researcher bias was also reduced by utilising a neutral introduction and standard interview questions, as noted in Section 5.9.2.

Aside from the above, a case study methodology can be inadequate for theory development, in that it uses a single methodology to examine a phenomenon (Yin, 2015). In response to this criticism, the current study selected and investigated two cases and several sources of data. The third criticism of the case study approach is that case studies can be difficult to conduct for operational and logistical reasons (Yin, 2015). This problem was overcome by giving advance notice to the participants and making appointments for the interviews. The researcher also pre-arranged access to the two Hospitals for the interviews and observation sessions. Finally, it could be a matter of concern that the results of the current study are specific to Jordanian hospitals. To overcome this, more studies are required in other hospitals, both in Jordan and elsewhere. In brief, it is through awareness of the limitations of the present study that researcher will be able to address these limitations in future studies.

5.14 Chapter Summary

This chapter has described the philosophy underpinning the current study, namely constructivism. The researcher has also described the methodology adopted for this study,

offering justifications for using a case study approach. Moreover, the researcher has discussed the concept of research design and other issues, such as validity and reliability. Additionally, clear information has been presented on the relevant ethical issues and on how the data is to be collected. It was therefore clarified that the data were triangulated, using multiple data sources. Moreover, the method of data analysis applied was outlined in detail. The researcher employed NPT as the theoretical framework of choice for designing the interview schedules and analysing results. This explanatory framework was used in order to help in comprehending perceived barrier and facilitators to TQM described within in present study (see Chapter 4) and report to future implementation. The framework method to data analysis was deemed the most suitable technique to complement the study's phenomenological methodology and face-to-face interview schedules, thus giving the study more structure. The researcher addressed trustworthiness and rigour in the form of (Creswell, 2013) and Schwandt et al. (2007) four constructs: credibility; transferability; dependability; and confirmability. Finally, the researcher reviewed the limitations of the case study methodology in this chapter. In the next chapter, he will now present the findings that emerged from the analysis.

Chapter 6 Research Findings

6.1 Introduction

This chapter presents case study data and discusses the themes that emerge from the data analysis. The chapter begins with the profiles of the hospitals utilized as case studies in this thesis. Then, the chapter discusses the participants' backgrounds and data collection through semi-structured interviews. The chapter then presents the main themes of both case studies. Section 6.5 to 6.10 discusses findings from three sources, including face-to-face interviews, document reviews and observations for two Case Study A and B. The findings are then reported using the respondents' own words. Section 6.11 discusses cross-case analyses. This chapter concludes with the findings obtained from both case studies mapped to the two constructs of the NPT in section 6.12.

6.2 Case profiles

This section presents a summary profile of the two hospitals (one private and one public) utilised as case studies. This profile details contain the hospital size, the number of patients and the types of services each hospital provides. For confidentiality purpose, the names and locations of the case study hospitals are not reported. The hospitals are cited as Case A, and Case B. The two selected hospitals (cases) deliver a wide range of medical services and they have applied TQM implementation since 2014. A summary of the selected case profiles is presented in Table 6.1.

Case A is the busiest private hospital in Jordan in terms of the variety of medical specialties and services available. An average of 850 patients attend daily and 90000 patients did so in 2017. The hospital, which was established in 2001, includes all medical specialties with capacity of 160 beds. It makes 30-45 admissions and 30-35 discharges each day. Case A is deemed the key multispecialty hospital in Jordan; all emergency cases are brought to the hospital for treatment and management. The total number of staff is around 10000. The hospital is considered one of the most important in the Jordan because of the role that it plays in case of emergencies or natural disasters in the country. The hospital is led by a hospital director, assisted by five other directors, for medical services, nursing, finance administration, and clinical support services. The head of quality in the hospital is a member of the executive team and reports directly to the Hospital Director.

The hospital began the implementation of TQM standards in June 2014. It was accredited in October 2016, which means that it took around two years to attain accreditation. To get ready for attaining TQM, the Hospital Director determined ten teams, each accountable for

one chapter of the TQM standards. The Patient Care team covered the medication management, surgical and anaesthesia standards.

The heads of the ten teams formed the TQM Steering Committee, chaired by the Hospital Director. The requirements of the international patient safety goals were not allocated to any of the teams but were led by the Quality Department, since this was deemed a hospital-wide function not specific to any team. The main responsibility of the TQM Steering Committee was to oversee the process of accreditation in the hospital and to follow it with every team. The TQM teams met twice a month at the commencement and at the end of the TQM process, because of the intensity and load of the requirements, to ensure first that the process was well established and then that all the requirements were met before the date of the survey. In the mid-period of the process, they met once a month because the workload was decreased.

Table 6.1 : case profiles Hospital A and B

Case study	Type of hospital	Number of patient beds	Number of staff	Approximate number of patients admitted per year	Types of service provided
A	Private hospital	160 patient beds	1000(full and part-time)	90000 including day patients	Provides services for acute medical, ambulatory, community and mental health patients including cardiothoracic and intensive care unit (ICU), trauma services, emergency department, neurosurgery with neuro high dependency unit, children's intensive care unit, neonatal intensive care, heart, lung, liver and renal transplant service, high-risk obstetrics, oncology, and women's health (specialist services) and IFV department . Surgical services for ear, nose and throat (ENT), urology, vascular, neurosurgery, paediatrics, radiology and psychiatry are provided.
B	Public hospital	170 patient beds	1200(full and part-time)	120000 including day patients	Delivers comprehensive cancer care by treating patients as a "whole", focusing on their physical, emotional and social well-being. In that regard, it has established programmes which focus on all stages of comprehensive cancer care: from prevention and early detection, through diagnosis and treatment, to palliative care. The hospital

offers many services to ensure that patients are supported throughout their difficult treatment, including: survivor groups, a physical rehabilitation program, a nutrition clinic, a psycho-oncology clinic, and a paediatric pain management clinic among many others. It treats all cancers and performs bone marrow transplants (BMT). Including 8 operating rooms. It houses 18 intensive care units, including 6 ICU specialized for paediatric care.

6.3 The Participants' Backgrounds

The participants selected for the face-to-face interviews were all working in a Jordanian hospital (Case Study A case study B) and had several years of management, nursing or medical experience. A brief profile of each interviewee is presented in Table 6.2 highlighting their experience in relation to their position at work.

Table 6.2 : Participant profiles, Case A

No	Position of interviewee	Years of experience
1	Quality management manager	15
2	Financial managers	18
3	Training & Development Centre manager	20
4	Nursing managers	16
5	IT manager	17
6	ICU nurses	10
7	Operation nurses	17
8	Paediatric nurses	13
9	Registered nurses (male ward)	9
10	Registered nurses (female ward)	8
11	BMT nurse	5
12	Doctor (Anaesthesiology and Recovery)	12
13	Doctor (paediatric)	15
14	Doctor (Radiologist)	21
15	Doctor (surgeon)	11

Thirty-five interviews were carried out in total and there were three groups of interviewees, arranged according to their disciplines, namely managers, nurses and doctors (see Table 6.3). Only eleven of the interviewees were female and these consisted of a department three managers, six nurses and two doctors. All the other participants were male, also working in different positions. Out of all those approached to be interviewed, no one declined to take part. The researcher selected to interview the staff primarily responsible for quality initiatives in the respective categories by focusing on the managers, nurses, and doctors in each category, as they would have had knowledge of the TQM process applied to their daily routine. Participants were referred to using a code, consisting of M, N and D, and numbered 1-7 in abbreviated format; for example, 'Interviewee M1' or 'Interviewee M7'.

Table 6.3: Numbers of interviewees in the two case studies

Staff Category	Number of interviewees in case study A	Number of interviewees in case study B
Managers	5	6
Nurses	6	7
Doctors	4	7

6.4 Main findings for the both Case studies A and B

The key themes emerged from data analysis for both Case Studies Hospital A and B were mapped to two NPT constructions, This mapping to only two constructions highlighted the barriers and facilitators to TQM implementation, summarised in Table 6.4

Table 6.4: Main barrier and facilitator themes for Case Studies A and B related to NPT constructs and components

NPT constructs and components	Theme as a Barriers	Theme as a Facilitators
Cognitive participation:	<ul style="list-style-type: none"> • Staff Resistance to change towards TQM • Resistance from doctors 	<ul style="list-style-type: none"> • Commitment and support from top management • Communication • Teamwork • Recruitment of qualified and efficient hospital managers • The recruitment of qualified and efficient hospital managers. • Patient involvement (the Patients' Feedback System to Improve Quality)
Collective action:	<ul style="list-style-type: none"> • Cost to TQM implementation 	<ul style="list-style-type: none"> • Training and staff awareness

-
- Staff shortages and high turnover
 - Lack of motivation, low wages, and poor incentives
 - Motivation, good wages and incentives.
-

6.5 Interview results for case study A

6.5.1 Facilitators to TQM implementation in Case study A

During the face-to-face interviews in Case A, participants were asked to discuss their views about the factors which facilitated the implementation of the TQM practice. Five themes emerged under this title where the participants referred to training, commitment and Support from Top Management, teamwork, communication, and patient involvement (Patients' Feedback System to Improve Quality).

6.5.1.1 Training and Staff Awareness

The first theme to emerge from these findings was 'Training'. Twelve out of the 15 interviewees subsequently mentioned training. For these participants, training and raising awareness were two of the main activities in TQM implementation, viewed as an initial step towards facilitating TQM implementation in Case Study A. Therefore, the interviewees saw training and awareness as necessary for promoting the process of TQM implementation. They believed that in some situations, the training process had a positive effect on TQM implementation at their hospital. They also confirmed that training in TQM had been conducted during its implementation at their hospital. For example, the interviewees reported that they had attended courses, workshops, lectures and presentations about TQM implementation within the hospital. Additionally, they mentioned that there was a continuous training programme at their hospital. The data analysis additionally found that these training initiatives had increased staff knowledge and awareness of the importance of TQM implementation and had facilitated its implementation at Case Study A. The participants' responses were as follows:

Training is the main facilitator of TQM. I know a lot about this TQM concept, because there is continuous training in our hospital... this is why we have done our best and we have initiated our internal programme to train our staff in TQM standards and policies, but the problem is that we cannot always attend lectures, due to staff shortages in our department. The training is important

for applying the quality programme in the right way and for us to get promotion in our work as well. (Interviewee M1)

[...] and it (TQM) requires a good training programme... this is very important for the success of TQM in any organisation. (Interviewee M3)

[...] without increasing knowledge and information about TQM for all staff in the hospital and helping the management to reduce resistance among doctors, the hospital would not be in a position to implement TQM properly. I think this is the role of the Continuous Education and Quality Offices in our hospital. (Interviewee M4)

I believe that the training is a basic facilitator of the TQM programme I did not know about the TQM programme, PDCA or Customer Focus before. In this hospital, I have attended courses and workshops to train and educate staff about the quality programme, such as accreditation and ISO, so I have a lot of information about quality management. (Interviewee N2)

In my opinion, without training courses, workshops and continuous lectures, employees cannot work correctly. (Interviewee D3)

Two managers who were interviewed suggested that suitable structured training for doctors in TQM implementation could improve their acceptance of the TQM process and reduce resistance among them. They confirmed that:

...training is a facilitator, because it is the core of TQM implementation. This is why we have the Office of Continuous Education, besides the Quality Office in our hospital; they give lectures about the quality programme every week, besides workshops and courses every three months, so that staff always hear about quality management. Furthermore, the Director of our hospital supports its application, but it takes time and considerable effort for us, although eventually it is useful for the success of the quality programme, ensures promotion in our jobs and could reduce resistance among the physicians as well. (Interviewee M2).

...again, the training leads to increased knowledge and information about TQM for all staff in the hospital and helps the management to reduce resistance among the physicians. Otherwise, the hospital would not be in a position to implement TQM properly. I think this is the role of the Office of Continuous Education and Quality Offices in our hospital. (Interviewee M4)

Moreover, the researcher observed during the interviews across the three categories of interviewees that most of the staff found it easy to gain information about TQM implementation, as the documentation was drafted in both English and Arabic to ensure that staff at all levels understood the system. The analysis of the interview data also indicated that the hospital (Case Study A) had staff training plans for each staff member.

6.5.1.2 Commitment and Support from Top Management

The second theme to emerge from these findings (Case Study A) was 'The commitment and Support from top management', whereby it may be seen from the analysis of the interview data that the responses contained language such as "*supported by top management*" and "*commitment of higher management*", which was typical of all the interviews. It is clear from the analysis that all the interviewees held the firm belief that commitment from the top management was important for TQM implementation. Therefore, a clear agreement was concluded from the interviewees' responses that top management commitment and support were significant facilitators of TQM implementation in Case Study A. Furthermore, all 15 participants reflected a very positive and satisfied attitude towards their higher management's implementation of TQM, with the three categories of participant (managers, nurses and doctors) reporting that:

You must know that effective TQM implementation demands more and more support and commitment from the higher administration. (Interviewee M1)

First of all, support from top management should be obtained, in order to reach a suitably mature level of implementation. I think this is the main facilitator. Therefore, in our hospital, there is strong support and commitment from our top management as regards TQM implementation. (Interviewee M2)

Generally, there is commitment from the higher administration in all private hospitals to fulfilling the requirements of the quality strategy, so you see most quality programmes in private hospitals are successful. Therefore, the commitment of the higher administration plays a role in facilitating the processes of TQM implementation in hospitals... you can see an actual example in this hospital of our managers supporting and encouraging staff to make a commitment and increase their skills to achieve the mission and vision of our hospital. (Interviewee N3)

The higher management in our hospital has offered the main guidance; meeting all needs without delay, such as an appropriate budget and so on. (Interviewee D4)

6.5.1.3 Teamwork

Seven out of the 15 interviewees discussed teamwork, generally in relation to resistance from doctors. When asked, the interviewees suggested that teamwork was necessary for these barriers to be addressed. All categories of interviewee highlighted the role of teamwork as a means of overcoming doctors' resistance to TQM implementation, since it is the best way of involving all staff in decreasing resistance and completing the tasks performed. These teams would comprise professionals from all departments, including doctors, nurses and technicians. All three categories of interviewee also emphasised the role of top management in teamwork:

We have to calm down resistance to change, as in the case of doctors and some of the other staff. We have to clarify to them that TQM implementation is not an instrument of punishment; it is an instrument for learning from experience. We showed them that the hospital is applying it to help them reach their goals in caring for patients and we explained that the advantages of TQM implementation in the hospital are for the staff and patients, so our higher management has developed a culture of teamwork. (Interviewee M1)

I believe that one of the successful methods of overcoming doctors' resistance during the process of TQM implementation is that all doctors and other staff in the hospital work as one family, focused on achieving TQM. Although the hospital has a lot of challenges related to the involvement of doctors from outside the hospital in TQM implementation, due to issues in the hospital's system, the managers and the top level administration always encourage our staff to work with them as a team in our hospital, following our own systems and focusing on the hospital's policies and procedures. (Interviewee M2)

Because of staff working as a team, they were fully aware of improved working practice and a better work environment; they relaxed and felt supported. Therefore, all of this led to partially overcoming the doctors' resistance to TQM implementation in our hospital. (Interviewee D3)

6.5.1.4 Communication

The fourth theme to emerge from these findings was 'Communication'. The data analysis found that communication was the backbone to TQM implementation in Case Study A. Seven out of the 15 interviewees believed that communication was a vital tool of TQM implementation. This facilitator is emphasised in the following quotations:

The quality officers in this hospital have done a fantastic job of running the TQM campaign as a very good communication instrument for all hospital staff. This campaign has increased staff awareness of the requirements of TQM and explained each person's role in applying the standard. (Interviewee M1)

The interviewees stressed the importance of meetings between Quality Office staff and other key departments in the hospital. Accordingly, the data analysis found that these meetings played a very important role in disseminating the culture of quality and improving staff knowledge concerning the requirements of TQM implementation in their departments. Thus, the staff asked the Quality Office to maintain this weekly meeting, after they found it very effective and beneficial in encouraging communication between hospital staff. For example, one nurse explained:

The regular meetings between the Quality Office and our department (Nursing) and some of the other departments have been a very useful way of answering the questions and queries of these departmental staff in relation to the role of their departments in the TQM implementation process and encouraging all staff and departments to work as a team to gain our certification. (Interviewee N5)

Additionally, the Head of the Information Technology (IT) Department explained the role of his department in promoting communication within the hospital (Case Study A) through the use of IT, especially during the TQM implementation process:

The hospital established hospital intranet to make all the necessary policies, procedures and plans accessible online for the staff. The management also intends to upload all TQM-related material, questions and answers, presentations and some of the reports for the hospital staff, so that they can access them whenever they need. (Interviewee M2)

The data analysis highlighted that the intranet network idea was a very useful, effective and efficient method of enhancing staff awareness and knowledge of the TQM implementation process, since it was easily accessible at convenient times. This is described by the following participant below:

I liked the idea of establishing an intranet network, because it would be a very good way to update myself and my colleagues about the TQM implementation process. Maybe, it would also make it easier for us to access or print out the electronic version (policies, standards and procedures); to make sure that all the staff in our department read it regularly. (Interviewee N1)

Moreover, the data analysis highlighted the importance of communication for overcoming the barriers to TQM implementation, such as staff resistance. For example, one Interviewee explained:

I believe that communication is very important for us as a facilitator of TQM implementation; for example, regarding doctors' resistance to TQM implementation among the staff, I believe that the hospital should communicate and convince doctors that TQM implementation is something good and that the hospital is implementing it to become more efficient and effective in what it does. This can be achieved through our meetings, which are held every month, because during these meetings, we discuss TQM policies and standards, so this will increase their awareness and knowledge of TQM in our hospital. (Interviewee N2)

6.5.1.5 Patient Involvement (Patients' Feedback System to Improve Quality)

The fourth theme to emerge from these findings was 'Patients' feedback system to improve quality'. The analysis showed that there were four facilitators that helped and encouraged Case Study A to implement its TQM programme, as mentioned previously. Additionally, the interview analysis found that the participants believed patient engagement to be a key facilitator of TQM implementation in the hospital. The majority of the participants (nine out of 15) confirmed that patient involvement through the collection of patient feedback, as a means of evaluating the improvement in quality, had facilitated TQM implementation at Case Study A. A patient satisfaction survey, which was distributed periodically and aimed to determine the quality of care services provided was used to gather information from patients. Its aim was to improve the quality of patient care, to satisfy patients' requirements and expectations, improve healthcare provision, and enhance the services themselves. These opinions were highlighted in the following quotations from three categories of respondent:

I think that because of the patients' involvement, the quality level is determined through continuous customer evaluation surveys and activities, which bridge the gap between the patients and the hospital staff. (Interviewee M1)

Continuous patient evaluation surveys and activities... bridge the gap between the patients and the hospital staff, such as receiving complaints and suggestions from patients and their families. (Interviewee M5)

That continuous evaluation by patients should be maintained to evaluate the quality of care, in order to meet their needs and expectations... this is how we have applied the Customer Focus technique. (Interviewee N3)

Patients share to improve our quality of care through a continuous survey, which asks them about the quality of the hospital and we have an office to receive their suggestions and ideas. (Interviewee N4)

The technique used in our hospital is Customer Focus, because the hospital management pays most attention to patient satisfaction surveys, since they have demonstrated great improvement in the quality of care. For instance, they precisely identify the needs and expectations of the patients. (Interviewee D2)

6.5.2 Barriers to TQM implementation in case study A

Participants identified a number of barriers to TQM implementation in Hospital A which emerged as themes in this study. The themes that emerged were resistance from doctors, motivation, low salaries and incentives, staff shortages and turnover, cost of TQM implementation, and workload.

6.5.2.1 Resistance from Doctors

Resistance from doctors was discussed by all three categories of participant. Twelve out of the 15 interviewees identified doctors' resistance as a barrier to TQM implementation at Case Study A. In this analysis, the researcher found that the participants provided reasons for their responses, with a number of insights into why there was resistance from doctors in this area. The reasons included the example that not all the doctors were directly employed by Case Study A. For instance, some doctors usually worked independently and had limited commitment to the hospitals that they cooperated with. Moreover, the doctors working in the hospital tended to think that TQM was merely support for managerial efficiency and service quality, but was not applicable to medical treatment. This view is exemplified in the following quotations from the managers, nurses and doctors interviewed at Case Study A:

Honestly, in the beginning, the idea was completely new for doctors, so the hospital faced difficulties in getting them involved, prompting them and getting them to believe in the programme and its value. It was quite challenging for us and still is, so the hospital finds resistance from them to following TQM standards. I think that this is because most of the specialists and consultants are employed from outside the hospital, so they consider the tools, procedures,

policies, standards and methods of TQM to be abstract and irrelevant to individual patient care... I believe that this could be a reason. (Interviewee M2)

Actually, we face many barriers, when we follow policies and standards of quality, such as the doctors' resistance... this resistance presents a problem in our hospital, since not all healthcare providers, I mean especially the doctors, are directly employed by this hospital, because, as you know, this is a private hospital. Frankly, the doctors and specialists generally work in their own clinics and have limited obligations to the hospitals that they cooperate with. (Interviewee M3)

Honestly, we have faced a big problem with our TQM programme (JCI accreditation and ISO 2200) in our hospital and this has been resistance from doctors. For example, you know that in most private hospitals, the majority of the consultants and some of the specialists have their own clinics and come from outside our hospital. So, you see, they do not feel concerned by accreditation or any quality programme, not even national or international activities, because they feel that it is not relevant to their job... they think that TQM is only helpful for administrative efficiency and service quality. Moreover, they think this programme adds to their workload. (Interviewee M5)

The nurses and doctors (**Interviewees N1, N5 & D2**) are in agreement with the Managers with regards to this particular theme (**Interviewees M3 & M5**), as both categories of participant cited doctors' resistance as a barrier to TQM implementation at Case Study A:

I believe that [...] the doctors who come from outside our hospital are still difficult to engage [in TQM], because I think our hospital lacks the documentation or strategies to be able to engage such doctors (who come from outside) to provide treatment to patients in this hospital. They do not follow the TQM policies or standards that are implemented in our hospital. This has created a big problem for the higher management and other healthcare providers, such as nurses; for example, it adds extra work for nurses, especially during TQM implementation the (JCI survey), with paperwork like QI monitoring, reporting on equipment, arranging files, and revising competencies or contributing to policy. (Interviewee N1)

In my opinion, another barrier to TQM implementation in our hospital is that it is difficult to involve the doctors who are employed by this hospital, or who

visit it as consultants and specialists in the TQM process, because they are very busy in their daily and routine work. They do not have enough time to attend training or get involved in the process. Moreover, the hospital does not have plans, policies or procedures to enforce their engagement in this process.

(Interviewee N5)

The consultants and specialists from outside our hospital are not guided properly by the hospital Director; each one develops their own perceptions and this leads to conflict between the heads of departments and nurses, and the TQM policies and standards that are applied in our hospital. Therefore, they need to follow these TQM policies and standards in our hospital. (Interviewee D2)

Furthermore, the data analysis found that the doctors interviewed appeared to be resistant to change citing that TQM implementation in hospitals was a new idea to them. For this reason, they seemed to be resistant to it. These findings are described in the quotations below:

I think it (TQM) is a new concept for the doctors and they know nothing about the outcomes of TQM implementation in hospitals. They don't want to bother; they want to do their job, go to the clinic and then go home. They don't want to be introduced to new notions about standards and policies in hospitals or about quality and how to measure it. They look at it as extra work for them. For example, in our hospital, there was one patient admitted under the supervision of doctors from outside the hospital. They refused to follow the JCI standards and policies, because they argued that it was not related to their job.

(Interviewee D1)

I think the hospital faces a barrier, like the difficulty in engaging doctors, because they are very busy in their clinics and with operations for patients in this hospital, or another hospital. I tell you honestly, it is difficult for me to leave clinics full of patients and go to attend a lecture on TQM, and I can't follow every single policy, because this is extra work for us and I don't have enough time to do that. (Interviewee D3)

However, one manager had played an important role in overcoming this resistance, explaining:

In this hospital, we have faced and are still facing a barrier to TQM implementation in our hospital, where it is difficult to involve both the doctors

who are employed by this hospital and those who come from outside. I noticed that when the doctors employed by this hospital were not interested in following TQM standards and policies in our hospital, no staff, including nurses, pharmacists or even managers were interested. For example, I went to the Radiology Department and found that the doctors either didn't get the idea of CJI, or they didn't really want to engage with it. It was clear that there was a list given to the Department's staff to do the work of a project PDCA in the same department. Basically, I stressed that if the Department's doctors did not engage with it, neither would the rest of the staff be engaged. (Interviewee M4)

6.5.2.2 Lack Motivation, Low Wages and Poor Incentives

Lack of motivation amongst staff, low wages and poor benefits appeared to be a particular barrier to TQM implementation in Case Study A, with eight out of the 15 participants citing these as problems. The following quotations reflect the interviewees' opinions related to this theme:

...and also the lack motivation and staff rewards is a barrier in our hospital; for example, If the employee is unmotivated, he will feel that he was not appreciated by the hospital, so why should he be positive toward the hospital because of quality initiatives such as TQM? (Interviewee M1)

From my experience in this hospital, I see the system of rewards and staff motivation as a barrier. Why? Because the reward should not only be for managers, but also for other hospital staff... if a hospital provides staff with fair financial rewards, this will encourage them to make more effort to implement the quality programme... Not just financial rewards for employees but also thanks. I think it is important to support the staff. I will give you an example: staff like to be recognised and have some nice words from hospital managers, whenever they achieve positive outcomes. They like to hear some words like 'Thank you for your effort', when the hospital gets to step forward to apply TQM or obtain any certification. (Interviewee M3)

Additionally, the analysis found that the participants considered a lack of motivation to have a very clear negative impact on staff commitment, engagement, performance, morale and productivity, as well as problems in attracting qualified staff. This was confirmed by the following quotations:

*Lack of motivation and low salary is the big challenges in this hospital. For me, I am sure that in order to increase staff commitment and therefore achieve the hospital's vision and mission, as well as decreasing turnover, as you know, it is very important to increase staff salaries or provide staff with bonuses or incentives for working towards successful TQM implementation. The top management have motivated staff morale to encourage them to perform extra duties in an effective manner, such as giving a few extra days off, and saying 'Thank you' at work. **(Interviewee M2)***

*I also believe that a lack of motivation amongst staff is a barrier in this hospital; you know, if there is no staff motivation, there will be less commitment. All the staff must feel that they are important for this hospital and that their job serves the hospital and contributes to patient care, so sometimes words like 'Thank you' or a gift from our top management are not enough. **(Interviewee N4)***

Besides, some of the participants expressed their views on the importance of good wages and a system of fostering motivation and attracting qualified staff, while at the same time decreasing staff turnover:

*Finally, a lack of motivation and good wages impacts negatively on TQM in this hospital. I believe that good pay and introducing some advantages for staff will encourage their commitment and promote activities that are oriented towards TQM, as well as helping to retain qualified staff, in order to decrease turnover and attract other qualified staff. Although we have some commitment at this hospital, because the managers motivate morale, which is quite good I think and important for building friendly relationships between hospital staff and managers, it is not enough. **(Interviewee N2)***

*The salaries, bonuses and incentives at this hospital are not good and so believe me, there are big barriers to applying TQM in our hospital, because it cannot attract the best-qualified staff to fulfil its mission and vision for TQM. Therefore, I believe that this is the barrier to its application. Believe me, if the hospital management increased our wages and established a system of staff motivation, turnover would decrease and qualified and experienced staff from other hospitals would work here, I am sure. **(Interviewee N5)***

The above quotations were derived from nurses: **Interviewees N2 and N5**, who recommended solutions for overcoming the barrier of staff turnover at Case Study A. Accordingly, the data analysis found that increasing staff wages and introducing a

motivation and reward system were recognised as a solution to high staff turnover in Case study A. This theme also emerged as a solution from the majority of the interviews and will be discussed in full under the following theme.

6.5.2.3 Staff Shortages and High Turnover

The data analysis found that 13 out of the fifteen interviewees confirmed staff shortages and high turnover as a real barrier to TQM implementation at Case Study A. These views may be found in the following quotations from the managers, nurses and doctors interviewed:

We have a high rate of turnover, especially among nursing staff. I am sure that this phenomenon has impacted negatively on the quality programme (CJI and ISO2000) and also on the general quality of care in the hospital. I think the reason is the workload, which is caused by accreditation... because most of this work is paperwork, so maybe this has led to an increased rate of turnover in this hospital. (Interviewee M1)

I think the hospital operates under pressure due to staff shortages, so we have the problem of the hospital being unable to offer proper services to its patients. Therefore, it cannot achieve its goal of patient satisfaction or attracting more patients. Moreover, there is a lot of paperwork for accreditation, because we have no IT system and this also adds effort and load on the staff, leading to increased turnover, mainly in nursing. (Interviewee N3)

The hospital has faced a high rate of turnover and I think this problem has impacted negatively on the TQM programme in this hospital, especially these days. (Interviewee D4)

Most of the staff turnover here is due to salary and benefits, such as incentives or bonuses. The staff here make an effort, but the salary paid does not equal the effort made. Therefore, staff frequently leave and go to other hospitals, which pay higher salaries and offer good benefits. (Interviewee N4)

The analysis found that staff shortage and turnover not only puts more pressure on current staff, but also impacts negatively on their performance and the quality of care delivered to patients. Moreover, it adds costs for the hospital, since it is obliged to train and retrain staff continuously. These findings are mentioned and confirmed by the following quotations from the interviews:

Our department was stable, but now we are facing a problem, which is a high turnover of nurses. The top management at the hospital has recognised the

effect of this problem and the need to resolve it. Therefore, it recruits new staff. Now, they are in the process of training them, but this could incur more cost for the hospital and demand more effort in training office staff. (Interviewee M2)

At certain times throughout the application of the TQM programme, the problem of turnover was encountered. It was a big problem for us, because we had to hire new staff and then train them from scratch. This problem impacted on the process of quality programme implementation and also the hospital's budget. (Interviewee M3)

The actual barrier that I see in our hospital is high staff shortage and turnover, mainly in nursing. This also adds costs for the hospital, because turnover causes the hospital to hire new staff and train them again. This incurs more cost for the hospital and makes the work more difficult; placing pressure on the healthcare providers (nurses). (Interviewee M4)

In view of the above, cost was clearly recognised as a barrier to TQM implementation in Case Study A, especially as this theme was discussed by seven out of the 15 managers and nurses interviewed, as outlined in the following section.

6.5.2.4 Cost of TQM Implementation

The analysis found that the participants believed high cost to be a barrier to TQM implementation at Case Study A. However, the analysis also highlighted that the participants did not have an awareness of what that cost was. Seven out of the 15 interviewees mentioned cost as a barrier to TQM implementation. Moreover, the data analysis found that the cost of the TQM implementation process was related to the hospital's readiness at the start of implementation, such as undertaking repairs and adding wards to the hospital, budgeting for consultants' fees and funding the training programme. For instance, the first interviewee was a member of the hospital's finance management, who stated:

The big barrier I am sure was the money. I remember that the top management managed to arrange for financial support to carry out the TQM implementation (ISO2200) by saving part of the hospital budget to pay the cost of consultants' fees. (Interviewee M4)

Findings suggest that the staff involved in TQM implementation differed across the interview sample, depending on their position and role; some fulfilled strategic and leadership roles, while others provided support and operational roles. However, there were

many similarities across these roles. The quotes below provide a representation of common opinion:

In general, a TQM programme, such as CJI OR ISO2200, is costly because this cost is associated with consultants' fees [and] there need to be courses and training. It cost the hospital a lot of money, such as in consultants' fees and we added some wards... we conformed to the fire and safety requirements of the JCI standards for the entire hospital. (Interviewee M1)

One of the barriers to TQM is that it needs major funding to achieve it, because the hospital needs appropriate funds and support... in order to reach a suitably mature level of TQM; for example, some departments need repairs, training programmes need to be introduced, and consultants' fees need to be paid. (Interviewee M5)

[...] cost was a barrier for our hospital, because to involve all staff in the implementation of TQM, you need to educate and support them; this incurs a huge cost and also a long time... you have to pay a lot for consultants' fees. (Interviewee N2)

6.6 Document Review Findings for Case Study A

The second approach utilised to gather data from Case study A in this research study was reviewing documents, which enabled the researcher to collect and analyse large volumes of data from Hospital A (Cases Study A) in the form of documents that were pertinent to the current research. These data yielded four themes, which are displayed in Table 6.5, below.

Table 6.5 : Case Study A documents reviewed

No	Documents Available for Review	Themes Derived from the Hospital Documents
1	External audit and assessment reports and Quality manual	Training and Staff Awareness
2	External audit and assessment reports and Meetings report	Communication
3	Quality manual and Patient surveys	Patient involvement (Patients' Feedback System to Improve Quality)

6.6.1 Facilitators to TQM implementation in cases study A

After reviewing documents in Hospital A. The researcher found that the documents explore and support a number of facilitators to TQM implementation reported by interviews in Hospital A. Four themes emerged under this title where the documents referred to training, communication, Patient involvement (Patients' Feedback System to Improve Quality), and teamwork.

6.6.1.1 Training and staff awareness at Case Study A, highlighted in the Document Review

On directing the development of programmes/processes related to TQM, Patient and Employee Safety, and Performance Improvement, the documents from Hospital A show that there was a continuance training programme for all staff, with opportunities for staff to update their knowledge of recent advancements in their profession, as well as helping them develop new skills, knowledge, attitudes and behaviour. From the review of certain documents, the researcher found that two forms of training were provided:

1. On-the-job training, such as attending lectures (with just one lecture per week), and
2. Off-the-job training by attending conferences and participating in educational workshops off the hospital premises.

A review of the hospital documents highlighted that a training programme was implemented for all staff, consistent with staff roles in improving quality and the Patient Safety Programme. These staff included nurses, doctors, pharmacists and technicians. For.

A review of the documents highlighted that Hospital A provides a training programme for all staff in TQM processes, consistent with staff roles in quality improvement, hand hygiene standards for medical personnel, international standards, a Patient Safety Programme, and training related to specific TQM projects, such as the International Patient Safety Goal (IPSG); infection control in medication management; evidence based practice; plan-do-check-act (PDCA) cycles, and lean management, in order to increase their knowledge and awareness of the TQM implementation process, as informed by interviewees in face-to-face interviews. Data from these documents were then supported or confirmed by data collected through face-to-face interviews with study participants in Case Study A.

6.6.1.2 Document Review of Communication at Case Study A

As mentioned above, the documentary review was confirmed and supported by interviewees in Case Study A. It highlighted that there was regular communication of quality issues to all staff in Case Study A, using two modes of communication: informal communication, consisting of phone discussions and verbal discussions at the patient's bedside in medical wards, regarding the patient's condition, equipment malfunction, and care service issues, and formal communication, consisting of service reports, meetings, training reports, emails and departmental circulars.

A review of the external audit and assessment reports and Quality manual of Case Study Hospital A shown that the Hospital A has established a Quality and Safety plan that implemented and communicated to all staff. However, the researcher found that the accreditation report highlighted specific areas showing deficiency of communication. For instance, some reports clearly referred to the need for clinical support services, like the laboratory, pharmacy and diagnostic services to enhance communicate results gotten to other clinical departments, as illustrious in the documentations below:

Recommend better communication with the clinical services to provide blood packs needed in timely manner. (External audit and assessment reports, hospital A)

Improve communication with healthcare providers concerning prescription mistakes by promoting reporting and education. (External audit and assessment reports and Quality manual hospital A)

6.6.1.3 Document Review of Patient Involvement at Case Study A (Patients' Feedback System to Improve Quality)

The researcher found that the document review conducted at Case Study A confirmed reports from respondents at the Hospital. Hospital A conducts patient and employee satisfaction surveys twice a year to determine the perceptions and levels of satisfaction of patients, families and employees, with regard to care service quality. The documents indicated that Performance Monitoring and Incident Quality Management Teams were responsible for collecting and analysing data on performance measures. They also collected and analysed data through hospital surveys, and reported on the results, as well as Collecting, organising and analysing Incident Reports and communicating the results of these to the relevant Hospital Departments and standing committee. Hospital A's documents clarified that survey findings were used to evaluate:

1. The current level of patient satisfaction with health care providers' services

2. How to improve the level of satisfaction of patients and their families as regards the care received
3. Whether a need exists to improve current quality practices to attain higher levels of satisfaction amongst patients and their families.

The document review findings were then verified by the interviews findings. In particular, the researcher found that the Patients' Feedback System to Improve Quality was an important facilitator of TQM implementation in Hospital A, which was also reported by many respondents in the Hospital.

6.6.1.4 Document Review of Teamwork at Case Study A

The reviewed documents from the Case Study Hospitals showed that the Hospitals fulfilled their mission and goals through the collective and coordinated efforts of all staff; drawing upon their diverse abilities, backgrounds, ideas and experience to help patients and formulate solutions. The Hospitals therefore appeared to value team success over personal success and there was respect in the way that the medical staff dealt with other Hospital personnel, as well as between the various professional groups. Likewise, medical staff demonstrated commitment to their Hospital's Code of Ethics. In particular, all staff members involved in Clinical Pathology Services were encouraged by the TQM Project Team to contribute to the improvement process.

Findings related to teamwork were mainly prominent in the documentations of Hospital A. There were recommendations by management of Hospital A about the need for multidisciplinary team in order to reinforce continual performance improvement and provide an integrated plan to care for patients as the recommendations are stated in the manual quality below illustrate:

Interdisciplinary team have to be developed to formulate a plan of care.
(Manual quality, Hospital A)

It is strongly recommended to immediately create a multidisciplinary team (including nurses, doctors and administration staff) to support continual performance improvement. (Manual quality, hospital C)

6.6.2 Barriers to TQM implementation in cases study A

The documents of Hospital A identified that cost is as a barrier to TQM implementation in Hospital A as discussed below

6.6.2.1 Document Review of the Cost of TQM Implementation at Case Study A

The data gathered through the document review supported the findings from the face-to-face interviews that the cost of TQM implementation was a barrier in Case Study A.

Meanwhile, the researcher verified by reviewing certain documents from Hospital A that there had been important upgrades to the premises, involving the renovation of buildings to comply with safety standards, as well as the addition of wards and clinics.

Aside from the above, the researcher found in Case Study A's documents that essential upgrades had been carried out to prepare the Hospital at the start of the TQM implementation, such as the installation of fire alarms, central warehouse for medical waste, construction of additional buildings, and reconstruction of some clinics and wards, which were in the approval stage for financial resources. This revealed that most of the TQM costs were related to the renovation of buildings, in order to meet the safety standards, run the training programme and pay consultants' fees, as cited by many interviewees in Case Study A. This meant that the cost of TQM in Case Study A was relatively high and it was consequently emphasised that it was a significant challenge to receive financial support on time.

6.7 Observation Findings for Case Study A

In this study, observations comprised the third technique employed to gather data for Case Study A. This method allowed the researcher to observe staff in action, providing services to patients. The data collected through observations in Case Study A were analysed and six themes were subsequently identified. These corresponded to the themes derived from the semi-structured interviews, which enabled the researcher to triangulate the data gathered in semi-structured interviews at Case Study A with data obtained from reviews of Case Study A's documents (see Table 6.6).

Table 6.6 : Findings from observations conducted at Case Study A

No.	Theme	Observed
1.	Training	Yes
2.	Teamwork	Yes
3.	Communication	Yes
4.	Patient Involvement (Patients' Feedback System to Improve Quality)	Yes
5.	Resistance from doctors	Yes
6.	Staff shortages	Yes

6.7.1 Facilitators to TQM implementation in cases study A

Observation in Case Study A identified a number of facilitators including training, Teamwork, and patient involvement (patients' feedback system to improve quality)

6.7.1.1 Training and Staff Awareness Observed at Case Study A

During the observation period, the researcher witnessed at least seven training sessions for healthcare providers, administrators, bio-engineers and technicians, provided on site by the nurse educator from the ICU, using servo-ventilators. This training offered an overview of different modes of ventilation, with the nurse educator covering the clinical aspects of ventilation, followed by the patient setup. At the end of the training session, each trainee practised by setting up a dummy patient on a ventilator. During this observation period, the researcher witnessed some on-the-job training in the use of high-risk clinical equipment. The trainees were provided with written notes as well as hands-on experience.

The researcher observed that the quality management team trained Hospital A's medical staff (nurses, doctors, pharmacists and technicians) in patient safety policies, risk reduction strategies, and techniques such as plan-do-study-act cycles. The researcher also observed healthcare providers employed at the Hospital attending courses and lectures about the quality management principles applied in their workplace, such as IPSP, PDAC and lean. Moreover, they were trained in procedures for documenting patients' medical records. Additionally, hospital department managers were trained in methods of data collection, data analysis, and the interpretation of quality results from rounds. However, the researcher did not observe any external training.

The fieldwork observations supported and confirmed the data brought to light by the documentary review and the face-to-face interviews, namely that training and awareness was a facilitator of TQM implementation in Case Study A.

6.7.2 Communication Observed at Case Study A

During the observation period, the researcher witnessed a meeting held in Hospital A. This meeting took place once a month and was used to promote communication among all staff. The researcher observed that all the Hospital staff were asked to attend this meeting, including the doctors, but only if they could. The researcher observed in this meeting that most of the attendees were managers, nurses, administrators and pharmacists. There was a notable absence of doctors. Issues were discussed related to quality and TQM, involving all staff and raising staff awareness of TQM requirements in line with international standards.

A supervisor chaired the meeting and the team discussed the following points:

- General discussion, such as projects and customer feedback.
- Administration issues, such as incomplete paperwork, special projects and service reports.
- Progress of the Patient Safety Programme.
- The International Patient Safety Goal (IPSG).
- Plan- Do-check-act (PDCA) cycles

The data obtained during this observation at Hospital A corroborated the data collected in the semi-structured interviews from the document review.

6.7.3 Patient Involvement Observed at Case Study A (Patients' Feedback System to Improve Quality)

During the document review period (January 2018), the researcher noted that Hospital A's quality management team conducted annual surveys to measure service quality and the satisfaction of patients, their families and staff.

Meanwhile, during the observation period, the researcher witnessed that hospital A conducted patient satisfaction surveys between 3rd January to 2018 to 2nd February to determine their patients' perception of service quality. Many of the managers, nurses and doctors in the face-to-face interviews highlighted the significance of this. Also confirmed by reviewing the relevant documents. In the annual surveys conducted at Case Study A, it is determined whether objectives, are being met, what enhancements are needed to existing services, what resources might be required in future and how the quality of the Hospital's service care and patient satisfaction can be enhanced.

6.7.4 Teamwork Observed at Case Study A

During the observation, it became clear to the researcher that the Hospital achieved its aims and objectives through the collective effort of its staff, coordinating their diverse abilities, backgrounds, ideas and experience to care of patients' needs and solve problems using the TQM process. As such, the researcher observed that the success of the team took priority over individual achievement at the Hospital. Moreover, all staff, whether medical, administrative or other, dealt with each other respectfully, with clear adherence to the Hospital's Code of Ethics. In short, the teamwork in Case Study A was observed to be a major facilitator of TQM implementation and progress in the work of the Hospital. This was supported by face-to-face interviews findings; one participant who stated during the interviews said that:

In the beginning, we confronted a barrier and we felt that older staff and doctors didn't want to apply this new method or new idea in our hospital's department, but later on, when they shared, when they took the courses and when they knew more about quality and safety, they appreciated and they became more engaged with the teamwork. (Interviewee M5)

The fieldwork observations shown that Case Study A had built a teamwork culture, thus supporting what was highlighted in the responses recorded in the face-to-face interviews, where teamwork was found to facilitate TQM implementation in Case Study A. For instance, one interviewee stated:

I believe that one successful method of overcoming doctors' resistance during the process of TQM implementation is that all doctors and other staff in the hospital work as one family, focused on achieving TQM. Although the hospital has a lot of challenges related to the involvement of doctors from outside the hospital in TQM implementation, due to issues in the hospital's system, the managers and top level administration always encourage our staff to work with them as a team in our hospital, following our own systems and focusing on the hospital's policies and procedures. (Interviewee M2)

6.7.5 Barriers to TQM implementation in cases study A

The barriers to TQM implementation emerged as a theme from observational data include resistance from doctors and staff shortages and turnover.

6.7.5.1 Doctors' Resistance Observed at Case Study A

During the observation period, the researcher witnessed that the majority of specialists and consultants were employed from outside the Hospital. Therefore, they considered the TQM tools, procedures, policies, standards and methods, such as PDCA and lean, which

are applied in Hospital A to be abstract and unrelated to patient care. The researcher noted during the period observed that doctors viewed patient care as a highly personal and private affair. The researcher therefore deduced from his observations that as members of an old and highly respected profession, doctors tended to operate autonomously, accountable only to themselves and their peers in Hospital A. This finding was supported by a statement made by **Interviewee M5**:

Honestly, we have faced a big problem with our TQM programme (JCI accreditation and ISO 2200) in our hospital and this has been resistance from doctors. For example, you know that in most private hospitals, the majority of the consultants and some of the specialists have their own clinics and come from outside our hospital. So, you see, they do not feel concerned by any quality programme, not even national or international activities, because they feel that it is not relevant to their job... they think that TQM is only helpful for administrative efficiency and service quality. Moreover, they think this programme adds to their workload. (Interviewee M5)

This statement confirms other data obtained in the face-to-face interviews, where the interviews analysis highlighted that resistance from doctors is a barrier to TQM implementation in Case Study A.

6.7.6 Staff Shortages Observed at Case Study A

During the observation period, the researcher observed that Case Study A suffered due to staff shortages and high staff turnover, especially in the ICU, male medical ward, and operating rooms. **Interviewee N4** commented as follows:

Most of the staff turnover here is due to salary and benefits, such as incentives or bonuses. The staff here make an effort, but the salary paid does not equal the effort made. Therefore, staff frequently leave and go to other hospitals, which pay higher salaries and offer good benefits.

The fieldwork observations therefore supported the findings from the face-to-face Interviews, namely that the shortage and high turnover of staff were found to be barriers to TQM during its implementation in Case Study A. The following sections will now report the findings for Case Study B.

Findings of Case Study B

6.8 Interview findings for case study B

Case B is a cancer hospital in Jordan. It provides treatment to cancer patients each from Jordan and the region. It is equipped with state-of-the-art medical equipment and services most of whose patients are cancer patient; however, an average of 800 patients attend the Hospital B each day and 120,000 patients did so in 2017 (Hospital B Annual Report, 2017). The hospital, which was opened for patient care in 1997, has a capacity of 170 beds. It has around 12000 employees working in different specialities. It is the largest hospital specialising in the cancer care in Jordan and Middle East. Like Hospital A, it is led by a hospital director, assisted by directors of medical services, nursing, finance, administration, and clinical support services. The Head of Quality in the hospital is a member of the executive team and reports directly to the Hospital Director.

Case B started the implementation of TQM in September 2015. It took around one and a half years to achieve JCI accreditation like Hospital A. It established different teams to prepare for accreditation. Each was responsible for one chapter of the TQM standards, including the international patient safety goals. All these teams reported to the Quality Council, an entity that oversaw the whole process and was responsible for approving all policies, procedures, plans and any other documents essential to attain the TQM standards. The Quality Council was chaired by the Hospital Director and consisted of different managers of Case B to ensure that all aspects of the TQM process and other quality and patient safety issues were well developed in the hospital. These teams meet monthly throughout the accreditation process.

The following subsections display the findings of Case B, investigative the aims for seeking the barriers and facilitators that affected successful of the implementation of the TQM practice in Case B.

A brief profile of each participant (interviewee) is outline in Table 6.7, highlighting experience in relation to the position held.

Table 6.7: Participant profiles, Case B

No	Position of interviewee	Years of experience
1	Quality management manager	16
2	Financial managers	14
3	Training & Development Centre manager	18
4	Biomedical engineering manager	23
5	Nursing managers	29
6	IT manager	11
7	ICU nurses	13
8	CCU nurses	9
9	Operation nurses	11
10	BMT nurse	20
11	Paediatric nurses	15
12	Registered nurses (male ward)	20
13	Registered nurses (female ward)	15
14	Doctor (Anaesthesiology and Recovery)	5
15	Pathology & laboratory medicine	7
16	Paediatric oncology	10
17	Radiologist	9
18	Radiation oncology	25
19	Palliative Care	16
20	Pathology & laboratory medicine	14

6.8.1 Facilitators to TQM implementation in Case study B

During the interviews, the participants B were asked to discuss their opinions concerning the facilitators of TQM implementation in Case B. Six themes emerged under this title, whereby the interviewees referred to training, commitment from top management, motivating, good wages and incentive, communication, the recruitment of qualified and efficient hospital managers', and patient involvement (Patients' Feedback System to Improve Quality).

6.8.1.1 Training and Staff Awareness

Eighteen out of the 20 participants reported that training and awareness were facilitators of TQM implementation in Case Study B, with the interviewees citing training activities as an initial step in the TQM process at the hospital, whereby all staff received training. They stated that staff had attended numerous lectures, workshops and presentations on TQM

implementation standards, as well as on the implementation process (such as PDCA), which would take place after the TQM project. Additionally, they agreed that staff knowledge and awareness of TQM standards was perfectly adequate, when the hospital began the process of TQM implementation. It is evident that the majority of interviewees in Case Study B shared the views of those interviewed in Case Study A, namely that training and awareness facilitate TQM implementation in Jordanian hospitals. These findings may be supported by quotations from the managers, nurses and doctors interviewed in Case Study B, as follows:

We have established training programmes. These programmes are focused on staff who do not have enough experience, or those who have low performance levels, in order to improve their productivity and minimise mistakes.
(Interviewee M2)

In my opinion, the training was very important for the success of TQM in our hospital. Yes, the hospital management paid attention to increasing staff awareness of the TQM implementation in our hospital by ensuring that they attended training courses and workshops. This impacted positively on the TQM implementation process... **(Interviewee M3)**

Of course, there were facilitators; at the beginning, the hospital established training programmes to increase staff awareness of TQM and it was important to our hospital, due to the lack of awareness and understanding of this new idea. **(Interviewee M5)**

All the staff attended courses on the Total Quality Management Principles and this helped the hospital to get its certification. **(Interviewee N2)**

In our hospital, there was sufficient awareness and training. Therefore, from my experience, these are the main facilitators of successful TQM implementation; not just in our hospital, but also, I am sure, for any hospital planning to attain JCI or ISO accreditation. **(Interviewee N4)**

...the hospital management believes in the importance of training programmes as facilitators of TQM, in order to benefit our staff, because the hospital believes that training has positive results that reflect on [its] ability to provide services.
(Interviewee D5)

The researcher found that most of the responses from the Case Study B participants were very similar to the findings for Case Study A, regarding training and awareness, as mentioned in section 6.5.1.1.

6.8.1.2 Commitment and Support from Top Management

The data analysis found that nineteen out of the 20 participants from the three different categories believed that support and commitment from their top management was one of the critical facilitators for achieving successful TQM implementation in Case Study B. It can be seen from the interview analysis that the responses included language such as 'supported by top management' and 'commitment of top management'. These expressions were characterised in the majority of the interviews. It was therefore clear from the analysis that all the interviewees believed that commitment from the top management was important for TQM implementation. Clear agreement between the participants could be concluded from the interviews, as regards commitment and support from the top management being a significant facilitator of TQM implementation in Case Study B. The participants therefore displayed a very positive and satisfactory attitude to the role of higher management in implementing TQM at Hospital B, with the participants reporting as follows:

In my opinion, the key facilitator is commitment and support from the higher management. (Interviewee M1)

Our top management does participate in quality and environmental management activities; this encourages and motivates all staff to participate and get involved in its (TQM) implementation. (Interviewee M3)

Support for and commitment to TQM is the main facilitator, because our top management participates in quality management activities. They have the ability to communicate the hospital's vision at all levels... they always have their agenda, which is always relevant to TQM implementation and our daily activities. (Interviewee M5)

The top management are a very important facilitator of TQM implementation in our hospital. Accreditation would have been impossible without the commitment of the top management; the managing Director performed activities [relating to] quality programmes day by day until quality became part of the daily routine in our hospital. (Interviewee N2)

I believe that top management commitment is the main facilitator of TQM implementation in our hospital; the top management has played a key role in the success of the TQM programme [here], so top management commitment and support has facilitated the TQM implementation process and ensured that it goes very well and smoothly... (Interviewee N4)

TQM implementation in our hospital has received more and more support and commitment from our top management. Therefore, I think they are the key facilitator. (Interviewee N5)

The researcher found that the majority of responses from the Case Study B interviewees were very similar to the findings for Case Study A; regarding top management commitment and involvement (see section 6.5.1.2). From the interviews conducted at Hospitals A and B, it may thus be deduced that the participants saw commitment from their top management as a facilitator of TQM implementation.

6.8.1.3 Motivation, Good Wages and Good Incentives

The analysis also highlighted that all the participants mentioned motivation, good wages and good incentives as facilitators of TQM implementation in Case Study B. In their view, hospitals should pay good salaries and benefits to their employees. The participants emphasised the importance of a system for motivating employees and ensuring good remuneration to talented and high-performing staff. Most of them highlighted the fact that fair rewards improve hospital performance and enhance staff morale and productivity. The following quotations reflect the interviewees' views on this theme.

...and also the high wages and incentives helped us to get our certificate and implement TQM successfully, because the hospital has excellent and experienced staff... since [it] pays high wages and we have incentives and bonuses for distinguished employees every month... the management recognises and acknowledges the talent and efforts of staff. (Interviewee M1)

The researcher noted that motivation, salaries and incentives for implementing TQM at Hospital B were mentioned by the interviewees in a similar manner to Case Study A (see section 1.6.3.2). On analysis, it was found that the system for motivating employees and ensuring appropriate remuneration was emphasised as important by the interviewees in attracting and compensating talented and high-performing employees. Most of the participants therefore claimed that fair rewards improve hospital performance, as well as increasing staff morale and productivity. These findings were derived from statements made by the managers, nurses and doctors interviewed and are supported by the following quotes:

I believe that financial rewards and wages play an important role in successful TQM implementation in our hospital, because I should explain that our hospital provides fair financial rewards for talented staff. This encourages them to make

[put in] more effort... I think it is important to support talent and experienced staff to meet our vision, mission and goals. (Interviewee M3)

...good wages and introducing some benefits, such as bonuses and incentives – a nursery for our kids, and extra vacation days. I think these are facilitators for TQM implementation at our hospital... they have helped us obtain the certification, because this hospital pays better wages than other hospitals in Jordan, so it attracts experienced and qualified hospital staff. (Interviewee N5)

From my experience, our management increases the commitment of hospital staff to TQM implementation in this hospital, through the incentives and bonuses given to staff and the bonuses given to distinguished employees... moreover, the wages in this hospital are better than at other hospitals, so this has contributed to the success of TQM implementation [here]. (Interviewee D1)

6.8.1.4 Communication

Fifteen out of twenty participants discussed the significance of communication to TQM implementation in Case B. The data analysis found that the participants were in agreement about communication being very important as a facilitator of TQM implementation, after improving staff awareness of TQM and promoting teamwork and culture of quality and safety in their hospital (Case B). The participating managers and nurses expressed their views on the importance of communication in the following quotations:

I believe that communication is the main facilitator of TQM implementation, so one very effective way that the hospital has promoted communication among staff in general and during TQM implementation in particular was the one-hour general staff meeting for all hospital staff every Wednesday. Staff members were asked to join these meetings every week. In this meeting, we worked as a team and discussed subjects associated with staff awareness regarding TQM requirements, in order to attain this goal. (Interviewee M3)

...I also think that communication between staff and the top management and Quality Office has helped us to facilitate the TQM programme in our hospital, because our hospital is big and has so many departments. Therefore, this meeting gives us the chance to discuss relevant TQM implementation issues with managers and the Quality Office and makes us work as a team. (Interviewee N5)

Thus, the communication was recognised as a facilitator to the implementation of TQM in case study B, particularly when there was system or single platform which all staff could communicate through such as meeting. The researcher found that most of the responses of Case B participants were very similar to the findings in Case A concerning communication, reported in section 1.6.2.4.

6.8.1.5 The Recruitment of Qualified and Efficient Hospital Managers

The majority of the interviewees (seventeen out of 20) in Case Study B believed that qualified and efficient hospital managers served as facilitators of TQM implementation at their hospital (Case B). They therefore stated that the recruitment of qualified and efficient hospital managers had facilitated TQM implementation and it was important to recruit such managers, if a hospital was to achieve success in this area. It is a view that is exemplified in the following quotations:

All Medicine and Nursing managers should gain full awareness and knowledge of health service and hospital management. (Interviewee M1)

Training [...]: managers and decision-makers, in particular, should attend leadership and management courses to increase their skills in hospital management, because most of them have no experience of managing healthcare services and as you know, their background is Medicine or Nursing... (Interviewee M2)

Moreover, qualified managers are a key facilitator of TQM implementation; for example, qualified managers can motivate staff to attain hospital goals and objectives. He or she will also be able to develop achievable goals and use hospital resources efficiently. (Interviewee M4)

It may be observed that the above statements made by managers interviewed for this study relate to the following comments from the participating nurses, where it is pointed out that efficient managers must be able to develop clear aims and objectives, effective policies, and creative procedures. Furthermore, they should always act as agents of change; adopting and implementing continuous quality initiatives, in order to achieve the hospital's objectives.

...and I think the right person to lead a hospital should be trained and qualified in hospital management and leadership. (Interviewee N1)

Qualified managers are very important facilitators, in my opinion... Why? Because I believe that good leadership has a good influence on TQM

implementation; for example, good leadership respects all staff, maintains communication, facilitates change, and offers clear vision. This is because the main responsibility of leadership is to maintain and create an internal environment that will encourage employees and involve them fully in meeting the objectives of their hospital. (Interviewee N5)

6.8.1.6 Patient Involvement (Patients' Feedback System to Improve Quality)

The data analysis found that most of the responses of Case study B interviewees were very similar to the findings in Case A regarding patient Involvement (Patients' Feedback System to Improve Quality) reported in section 6.5.1.5. The data analysis found that three quarters of the interviewees (fifteen out of 20) confirmed that patient involvement through the collection of patient feedback, as a means of evaluating the improvement in quality, had facilitated TQM implementation at Case Study B and that patient involvement is significant to TQM implementation in Case B. The data suggests that that hospital B carry out patient surveys once every six months to determine their patient's perceptions of service quality. From the findings of these annual surveys, hospital B are able determine if they are attaining objectives, what improvements are needed in current services, how to improve the quality of patient care to satisfy patients' requirements and expectations, future resources that may be needed and how improvements can be made to enhance the quality of patient care to satisfy patients' requirements and expectations, improve healthcare provision, and enhance the services themselves. These opinions were highlighted in the following quotations from three categories of respondent:

We established quality measurement systems to measure our progress in continuous quality improvement. Some of the tools used to monitor progress in all processes include patient's surveys, auditing or organizational self-assessments, patient's complaint and resolution systems, and statistical tools. (Interviewee M1)

The patients can make important contributions in continuous

Improvement efforts. Quality management department staff analysing patient`s feedback from the annual survey to determine the patient`s opinion of the quality service" (Interviewee M4)

Our hospital distribute surveys twice a year. Our hospital use because it believes to find own strength and weaknesses, and learn how to improve and

adapt with changes in regard to the patient focus we to meet all the suggestions and need of the patient (Interviewee N1)

the hospital see that the opinion of the patients and their families is very important so in our hospital for this why we have every six months. Our hospital applied these surveys by the patients and their families to determine the quality level of our hospital to make sure we meet their needs and expectations. (Interviewee N3)

6.8.2 Barriers to TQM implementation in Case study B

The interview data analysis of Hospital B identified that the time, cost of TQM implementation, resistance to change are as a barrier to TQM implementation in Hospital B as discussed below.

6.8.2.1 Cost of TQM implementation

The data analysis found that cost was a particular barrier to TQM implementation in Case Study B, with thirteen out of the 20 interviewees reporting this. It corresponds to the findings for Case Study A, where the data analysis highlighted that the cost of TQM implementation related to the hospital's readiness at the start of the process:

The cost of the consultants was relatively high; organising the funding was a problem for us, being a government hospital, and our hospital required a lot of renovation in relation to its buildings, in order to meet the safety standards and also to add extra wards and clinics. (Interviewees M2 & M4)

In the beginning, cost was the main barrier and in my opinion, our hospital didn't have any of the financial support that would have helped greatly in implementing some of the standards, such as changing the building's infrastructure. (Interviewee M5)

Applying specialised TQM in a non-profit hospital like this requires a great deal of finances, time and resources. So, the money or budget was not always available on time to make certain changes to the building, or to pay the consultants' fees or other expenses. (Interviewee N3)

In the beginning, cost was a barrier, because the budget was insufficient for making a start; there was no support, no funding or financial support from the Ministry. (Interviewee N4)

6.8.2.2 Staff Resistance to change

The interviewees mentioned that the main barrier to TQM implementation could be traced back to the general absence of a culture of quality in the Jordanian health sector. The data analysis consequently found that fourteen out of the 20 participants identified resistance to change amongst staff as one of the barriers to TQM implementation, especially during its early stages. These are similar to the findings for Case Study A, where seven out of the 15 interviewees identified doctor`s resistance to TQM implementation as one of the barriers faced, especially at the beginning.

The theme derived in Case Study B are supported by the following quotations from the managers, nurses and doctors interviewed.

In our hospital, we are faced with many barriers through our TQM implementation. It was clear that some people were unwilling to fully implement TQM, due to the lack of a culture of quality. This was the main problem at the beginning; as you know, not everyone likes change.

(Interviewee M1)

...our hospital faced resistance to applying TQM; for example, some old staff refused to follow the standards and policies for quality improvement. They said that this was just a waste of our time and costly for us... I think that the biggest barrier to implementing a new concept, such as a TQM programme, especially in a public hospital, is the need to establish a culture of quality... It takes a long time to apply new standards and polices that differ from what people are used to; it's not easy, so we were faced with huge difficulties in the beginning.

(Interviewee M3)

Honestly, change was not easy in the beginning. It's a hospital and so the implementation of total quality management programmes is not like it is in manufacturing or university. However, it is heading for change over time. The perception of healthcare providers in general is that [the results] are not immediate, but they will see the difference over time. **(Interviewee M4)**

At the beginning, the hospital faced a lack of participation from doctors and nurses, and some of the administrators made TQM implementation very hard in the beginning; the main reason for this was that it was very hard to convince them. **(Interviewee N2)**

Aside from this, however, the analysis found that the culture in Case Study B was generally very supportive and cooperative, particularly during the TQM implementation process. It

found that resistance was minimal at the beginning and after that, staff were very supportive, with this situation improving after they saw that the TQM project was successful, based on self-assessment and feedback from the TQM consultants. One interviewee stated that:

Resistance to the implementation of the TQM standards was very high among new staff at the hospital, because they tended to focus on the work itself, as they had no awareness or knowledge of TQM. At the same time, resistance to the implementation of the TQM standards was very low among the expatriate staff at the hospital. (Interviewee N3)

6.9 Findings from the Document Reviews at Case Study B

As mentioned earlier, document review was the second technique used to gather data from both Case Studies in this research project. This method offered the researcher a chance to collect and analyse large volumes of data from Hospital B (Case Study B), pertinent to this current study. Data were therefore collected from documents reviewed at Case Study B and the results were analysed and condensed, thus yielding five themes (see Table 6.8).

Table 6.8: Themes emerging from a documentary review for Case Study B

No	Documents Available for Review	Themes Derived from the Hospital Documents
1	External audit and assessment reports and Quality manual	Training and Staff Awareness
2	Meetings report	Communication
3	Quality manual and Patient surveys	Patient Involvement (Patients' Feedback System to Improve Quality)
4	Financial statements and external audit and assessment reports	Cost of TQM Implementation
5	Job description	The recruitment of qualified and efficient hospital managers

6.9.1 Facilitators to TQM implementation in Cases Study B

After reviewing documents in Hospital B such as quality manuals, policy and procedure manuals, job description, external audit and assessment reports, and policies and procedures manual Administrative related to implement of TQM in Hospital B. The researcher found that the documents highlighted and confirmed a number of facilitators to TQM implementation cited by interviewees in Hospital B. Four themes emerged under this title where the documents referred to training and staff awareness, communication, patient involvement (Patients' Feedback System to Improve Quality), and recruitment of qualified and efficient hospital managers.

6.9.1.1 Document Review of Training and Staff Awareness at Case Study B

The documents reviewed at Case Study B highlighted a training and development plan for all staff, which included training in quality improvement across all Departments. In addition, an analysis of documents at Case Study B indicated that a plan for ongoing training was in place at the Hospital, including short workshops, on-the-job training and training related to TQM. According to Hospital B's documents, training for all staff usually begins with the clarification of the Hospital's policies on, for example, health and safety, quality management principles, IPSCG, fall prevention, hand hygiene, infection control, medication management, PDCA, fishbone techniques, lean management and customer focus as a TQM tool. In short, the researcher verified through a review of the relevant documents that TQM training and awareness was important for TQM implementation at Hospital B. This was further supported by the fact that a large number of participants at Case Study B cited training and awareness as a facilitator of TQM implementation.

6.9.1.2 Document Review of Communication at Case Study B

Case B's documents highlight the fact that Hospital B, like Hospital A hold meetings every three weeks. These meetings address issues such as staff training, service quality and customer satisfaction, as well as the way in which TQM can be implemented in their hospital. The documents (external audit and assessment reports and Quality manual) explained that Case Study B, like Case Study A, employed two common methods of communication:

1. Informal communication: consisting of discussion of TQM implementation issues, taking place over the phone or at the patient's bedside in the medical wards.
2. Formal communication: consisting of service reports, meetings, training reports, emails and departmental circulars.

The researcher therefore confirmed from the documents reviewed at Case Study B that communication was a significant factor of TQM implementation and this was also mentioned in the face-to-face interviews in Case Study B.

6.9.1.3 Document Review of Patient Involvement at Case Study B (Patients' Feedback System to Improve Quality)

The document review (Quality manual and Patient surveys) showed that like Hospital A, Hospital B conducted surveys to measure service quality and customer satisfaction. However, at Hospital B, these took place every three months. The document review suggested that these survey findings were used to conclude:

1. The current level of patients' satisfaction with the healthcare providers' services
2. How to improve satisfaction with the services among patients and their families
3. Whether a need exists to improve current quality practices, in order to attain higher levels of satisfaction among patients and their families,
4. What level of quality will be needed to meet patients' needs in the near future?

By reviewing these documents, the researcher verified the importance of patient engagement (the Patients' Feedback System to Improve Quality) to TQM implementation in Hospital B. This was similarly reported by many of the managers, nurses and doctors interviewed at Case Study B.

6.9.1.4 The Recruitment of Qualified and Efficient Hospital Managers at Case Study B

Case Study B`s documents confirmed that expert managers and heads of department were recruited for the Hospital, with qualifications in health service and hospital management, as well as previous experience. Nursing managers and doctors in management had attended courses in health service management, in accordance with the training plan. Most of this training, however, was found to be off-the-job and carried out on university courses on health service management and quality improvement. Moreover, the reviewed documents highlighted that it was essential for heads of department to improve their management skills by attending leadership programmes because it is necessary. Training is important for all staff, but especially for the Hospital`s managers and decision-makers. Once staff obtain good product information and gain management experience, they are qualified as managers or heads of department at Hospital B. The results of this document analysis supports many of the responses from the interviews in Case Study B; indicating that the recruitment of qualified and efficient hospital managers is very important for TQM implementation at the Hospital.

6.9.2 Barriers to TQM implementation in Cases Study B

The documents data analysis of Hospital B identified and confirmed that the cost is as a barrier to TQM implementation in Hospital B as discussed below

6.9.2.1 Document Review of Cost of TQM Implementation at Case Study B

The document review supported the findings from the face-to-face interviews, namely that the cost of TQM implementation was a barrier to the Hospital. The Case Study B document review, like the document review conducted for Case Study A showed that there were upgrades to the Hospital, such as installing a better fire alarm system and adding new wards or clinics to meet international standards, as well as outlining the costs related to the Hospital`s readiness at the start of implementing the training programme and the consultants` fees. The researcher verified this by reviewing certain documents concerning these important upgrades to the Hospital in readiness for the start of implementation, such as for the installation of fire alarms and consultants` fees; clarifying that there had been a delay in approving the release of financial resources. The cost of TQM in this case was relatively high and it was highlighted as a significant barrier to obtaining timely financial support. This was also confirmed by the interviewees in Case Study B, who emphasised the delay in receiving financial support on time due to government processes.

6.10 Observation Findings for Case Study B

Observation was the third technique for gathering data on Case Study B in this current study. This method allowed the researcher to observe staff as they actively engaged in providing services to patients in Hospital B (Case Study B). Three themes emerged through the application of this method, similar to the themes derived from the semi-structured interviews conducted at Case Study B. These three themes gave the researcher an opportunity to triangulate the data gathered in the semi-structured interviews with the data obtained from the review of the documents Table 6.9.

Table 6.9: Themes emerging from observations of Case Study B

No.	Theme	Areas Observed
1.	Training and staff awareness	Yes
2.	Communication	Yes
3.	Patient Involvement (Patients' Feedback System to Improve Quality)	Yes

6.10.1 Facilitators to TQM implementation in Cases Study A

Observation data analysis of Case Study B recognised a number of facilitators including training, Communication and patient involvement (patients' feedback system to improve quality)

6.10.1.1 Training and Staff Awareness Observed at Case Study B

During the observation period, (January 2018-March 2018), formal on-the-job training was conducted for healthcare providers at the Hospital. The researcher witnessed several of these on-the-job training sessions, with lectures on quality management principles, IPSPG, fall prevention policy, infection control, medication management, PDCA and customer focus as a tool of TQM applied in the Hospital, as well as on lean and fishbone techniques. However, the researcher did not observe any external training.

6.10.1.2 Observed Communication at Case Study B

During the observation period, the researcher found that two main methods of communication were used at Case Study B:

- Informal communication, including phone and face-to-face discussions

Formal communication, consisting of service reports, meetings, training reports, emails and departmental circulars.

During this period, the researcher also observed that most doctors, nurses and other healthcare providers from different categories at Case Study B faced challenges in communicating with doctors; they specifically referred to facing a major challenge in complying with the documentation requirements for TQM standards.

However, the researcher also observed that some of the doctors considered meeting the documentation requirements for patients' medical records of patients to be the most serious challenge for the Hospital in meeting the TQM standards. From this, the researcher understood that it was part of the culture in Case study B for telephone communication to be regarded as normal practice.

6.10.1.3 Observed Patient Involvement at Case Study B (Patients' Feedback System to Improve Quality)

During the observation period (in February 2018), the researcher witnessed an annual survey carried out in that particular month by the Hospital's Quality Office to measure patients' satisfaction with the quality of care provided by the Hospital. Using this observation method, the researcher produced findings to support what had already been highlighted in the interviews and document review, with regard to the Patient Involvement (Patients' Feedback System to Improve Quality) at Case Study B, namely that it was an important facilitator of TQM implementation at the Hospital.

The findings from the observation are supported and confirmed by the interviews findings. For example, **interviewees M1** and **N4** mentioned that the survey's findings were used to identify:

the current level of patients' satisfaction with the healthcare provider's services; how to increase patients' and their families' satisfaction; whether a need exists to improve current quality practices, in order to attain higher levels of satisfaction amongst the patients and their families, and what level of quality will be needed to meet patients' needs in the near future. (Interviewee M1 & N4)

6.11 Cross-case Analysis

According to Khan and Van Wynsberghe (2008), cross-case analysis is a research method that enables the researcher to match similarities and differences in events, activities and processes, forming the units of analysis in case studies. In the above section, the researcher expressly gathered data using three different approaches and derived themes

from the results obtained from two hospitals as case studies. In this section, cross-case analysis is used to scrutinise the similarities and differences between these two cases. First, the researcher conducted a cross-case analysis independently for the semi-structured interviews, followed by cross-case analysis for the document reviews, and then for the observations. A summary of these cross-case analyses is presented at the end of this section.

6.11.1 Cross-case Analysis of the Semi-structured Interviews

Table 6.10 displays a cross-case analysis of the face-to-face interview data, whereby it is clear that training and staff awareness in both Case Study A and B is recognised as a facilitator of TQM implementation. This analysis also clearly shows that TQM implementation is largely reliant on commitment and support from the top management, which was equally found to be a facilitator of TQM implementation in both Case Studies. With regard to the role played by higher management in facilitating TQM implementation, cross-case analysis highlighted that their commitment and support was a key component in both Cases.

The cross-case analysis of the face-to-face interviews also showed that communication plays a highly significant role in TQM implementation in Case Study A and B. Communication was recognised as a facilitator of TQM implementation in both Case Studies, especially when there was a system or more than one platform on which all participants could communicate, as in meetings or over the telephone. For example, quality issues were discussed in quality review meetings. At Case Study A, these meetings were conducted on a weekly basis, while at Case Study B, these took place twice monthly, whereby quality and TQM management processes could be discussed in management review meetings. From the analysis of data derived from the face-to-face interviews, it would appear that such meetings are conducted in both Hospitals, but at different time intervals: once a week in Case Study A and twice a month in Case Study B.

The cross-case analysis of the face-to-face interviews also showed that both hospitals measured service quality and patient satisfaction from patient feedback, and annual patient surveys. Patient's feedback would therefore seem to testify in both Case Studies to the success of TQM. As the Hospitals continue along their quality journey, they both appear to be looking forward to exceeding their patients' expectations by delivering the highest quality care services at the lowest possible cost by implementing TQM. Therefore, from the cross-case analysis, the Patient Involvement (Patients' Feedback System to Improve Quality) was found to facilitate TQM implementation in both Case study A and B.

The data from the cross-analysis of the face-to-face interviews stressed time as one of the barriers to the TQM implementation process in both Cases Studies A and B, because many

of the interviewees mentioned that the lifestyle of the Jordanian people had a real influence on the TQM implementation process, especially during the summer holidays and in the holy month of Ramadan.

From the cross-case analysis, it was also clear that the cost (financial issue) of TQM implementation was a barrier that affected several different aspects of the TQM programme in both Case Studies. The areas incurring high costs included training provision, the construction of new Hospital buildings, repairs to Hospital buildings, time, consultants' fees and the registration fee itself, amongst others – the cost of reconstruction, the training programmes, and the high consultancy fees to facilitate the registration process were key factors in the cost of TQM implementation in both Case Studies. The cross-case analysis indicated teamwork as a facilitator of TQM implementation in Case Study A.

From the cross-case analysis of the data from the face-to-face interviews, while there were commonalities in the barriers and facilitators to TQM implementation at the Case Study Hospitals, it should be noted that there were also differences in the barriers and facilitators between Case Study A and B. For example, cross-case analysis of the face-to-face data highlighted that lack motivation, wages and incentive were identified as a barrier affecting staff and increasing staff turnover in Case Study A. Doctors' resistance was also ascertained as a barrier to TQM implementation in Case Study A. Meanwhile, cross-case analysis also showed that motivation, wages and incentive were identified as a facilitator of TQM implementation in the above-mentioned Hospital. Moreover, cross-case analysis of the face-to-face interviews indicated that staff shortages and high staff turnover were barriers facing Case Study A.

Aside from the above, the cross-case analysis also showed staff resistance to be a barrier to TQM implementation in Case Study B. However, the cross-case analysis also demonstrated that the recruitment of qualified and efficient hospital managers facilitated TQM implementation in Case Study B.

Table 6.10 : Summarise commonalities and differences in the interview responses

Themes	Commonalities	Differences
Barriers		
Cost of TQM	Case Studies A and B	
Lack of motivation and low wage and Poor Incentives		Case Study A
Staff shortages and high turnover		Case Study A
Resistance from doctors		Case Study A
Staff resistance to change		Case Study B
Facilitators		
Training and Staff Awareness	Case Studies A and B	
Commitment and support from top management	Case Studies A and B	
Communication	Case Studies A and B	
Teamwork		Case Study A
Patient involvement (a patients' feedback system to improve quality)	Case Studies A and B	
The recruitment of qualified and efficient hospital managers		Case Study B
Motivation, Good Wages and Good Incentive		Case Study B

6.11.2 Cross-case Analysis of the Document Reviews

The cross-case analysis of the document reviews was performed in the context of both cases' current management systems, supporting the face-to-face interview findings. The researcher examined the similarities and differences between the two Cases and these are presented in Table 6.11.

Table 6.11 : Similarities and differences in the document reviews

Theme	Commonalities	Differences
Barriers		
Cost of TQM Implementation	Case Studies A and B	
Facilitators		
Training and Staff awareness	case Studies A and B	
Communication	Case Studies A and B	
Teamwork		Case Study A
Patient involvement (a patients' feedback system to improve quality)	Case Studies A and B	
The recruitment of qualified and efficient hospital managers		Case Study B

In the cross-case analysis of both Case Study Hospitals shows that the documents reviewed for each Case highlighted individualised training and staff development plans. The training was either carried out on- or off-the-job. In the cross-case analysis, the document reviews were found to confirm the data gathered in the face-to-face interviews in both Hospitals, as regards training and increased awareness being a facilitator of TQM implementation at both Hospitals.

The cross-case analysis showed that both Hospitals used various kinds of communication. For example, in both Hospitals, meeting were held, where quality and TQM implementation issues were discussed. In Case Study A (Hospital A), quality review meetings were held every week, while in Case Study B (Hospital B), such meetings were held twice a month. Reviews of the relevant documents highlighted that both Hospitals conducted their daily business utilising both formal and informal communication. The formal communication included reports, meetings, emails and departmental circulars, while the informal communication consisted of telephone calls and face-to-face discussions of the TQM implementation process. The cross-case analysis found that the document reviews for both Cases Studies, such as reviews of minutes of meetings, the intranet and various reports verified the face-to-face interview data in both Hospitals, indicating communication as a facilitator of TQM implementation.

The cross-case analysis of the data from the document reviews for both Case Studies also showed that both Hospitals carried out patient surveys to determine their patients'

perceptions of service quality and satisfaction with the services provided. Both Case Studies determine whether they are fulfilling their aims from the findings of their annual surveys, as well as what enhancements are required to the current quality of services, what future resources may be required, and how enhancements can improve service care quality, thereby understanding how to increase patient satisfaction. The cross-case analysis of the documents from both hospitals support the face-to-face findings, whereby it was found that patient involvement (the Patients' Feedback System to Improve Quality) was a facilitator of TQM implementation in both Case Study A and B.

The cross-case analysis of the documents from both Hospitals showed that cost was recognised as a barrier at both institutions. As reported by the interviewees, most of the costs came from upgrading the infrastructure to meet international standards, information dissemination, training programmes, and consultant's fees in both Case Study A and B.

Although most of the costs were incurred by upgrading the infrastructure to meet international standards, disseminating information, and providing training programmes in both Case Studies, the cross-case analysis of the document review found that by reviewing some of the documents in Case Study B, the researcher found that Case Study B faced challenges related to the cost of upgrading the fire alarm system in the Hospital, which was an important improvement, but held up by a delay in the approval of financial resources.

From the cross-case analysis of documents, it was highlighted that Case Study B's managers and heads of department at the Hospital were qualified and trained in hospital management, besides their major subject as doctors, nurses and pharmacists. Thus, the cross-case analysis of the reviewed documents support the findings from the face-to-face interviews, where the recruitment of qualified and efficient hospital managers was found to be a facilitator of TQM implementation in Case Study B.

6.11.3 Cross-case Analysis of Observations at Case Study A and B

The cross-case analysis of observations was carried out in the context TQM in the two Case Study Hospitals. The similarities and differences identified through this analysis are presented in Table 6.12.

Table 6.12: Similarities and differences in observational studies

Themes	Similarities	Differences
Barriers		
Staff shortages and high turnover		Case Study A
Facilitators		
Training and Staff awareness	Case Studies A and B	
Teamwork		Case Study A
Communication	Case Studies A and B	
Patient involvement (a patients' feedback system to improve quality)	Case Studies A and B	

The cross-case analysis of the observations highlighted that Case Study A had decided to work as one 'family', concentrating on attaining TQM. Therefore, teamwork was recognised as a facilitator of TQM implementation at Hospital A. This was despite the fact Case Study A faced numerous challenges related to doctors' resistance to following the standards of TQM and the shortage and high turnover of staff. The cross-case analysis of the observations also showed that formal on-the-job training was provided for staff in both Case Study Hospitals. This analysis found that two on-the-job training sessions had been offered to staff in both Hospitals.

Aside from the above, cross-case analysis of the observations highlighted that communication was determined as a facilitator of TQM in both Case Study A and B, with formal and informal communication playing a role in improving TQM implementation in these Hospitals. The cross-case analysis showed that Case A held meetings once a week, with a few doctors attending. This weekly meeting was conducted by a supervisor, with the team discussing issues related to TQM implementation. Meanwhile, Case Study B held

hospital meetings twice a month, where staff could discuss issues related TQM implementation, patient cases, and health and safety. This meeting was attended by employees from different disciplines. In Cases Studies A and B, the investigation report was offered to the top management and discussed in the next quality review meeting. Suitable corrective action was executed, and details sent to the Risk Committee.

Cross-case analysis also illuminated the fact that both Hospitals measured the quality of their care services and patient satisfaction via patient feedback, especially through annual patient surveys. Patient Involvement (the Patients' Feedback System to Improve Quality) was therefore identified as a facilitator of TQM in both Case Studies.

Conversely, cross-case analysis highlighted that Case Study A was suffering from staff shortages and high staff turnover in nursing, especially in the ICU, Male Medical Ward, and Operation Rooms, due to the failure of Hospital A in terms of motivation and workload. The cross-case analysis therefore highlighted that the observations conducted in both Cases Studies supported the respective interview findings.

6.12 Mapping of Themes to Normalisation Process Theory (NPT)

The themes (relating to the barriers and facilitators of TQM implementation) were derived from the findings of both Case Studies. These findings were based on data gathered using three methods of data collection: face-to-face interviews, document review, and observation. The themes were mapped into the four constructs of Normalisation Process Theory (NPT), where the two relevant theoretical constructs consisted of coherent cognitive participation (relational work) and collective action (operational work). This outline helped to shed more light on the overarching concepts and implications behind each finding and its associated theme.

6.12.1 Cognitive Participation (Participation and Relationship Work in TQM)

The analysis of data from both Case Studies highlighted that an important part of implementing a TQM programme or working method involves engaging the right people and then sustaining their ability to involve others. In NPT terms, this is referred to as 'cognitive participation' (see Chapter 4). Cognitive participation refers to the work that people carry out to integrate a new practice (relational work). It includes people buying into and supporting a new practice and agreeing that it should be part of their work. It includes the support received by participants during TQM, the time and effort invested in the process, and the extent to which the participants are actively involved in it. Evidence is presented here, which maps cognitive participation into seven themes, as explained in detail below:

6.12.1.1 Initiation:

The analysis of data from both Case Studies highlighted the significance of commitment and support from top management, as a key facilitator of TQM implementation in both Case Studies. It recurred frequently in the study findings (see sections 6.5.1.2. and 6.8.1.2). Thus, the top management represent key individuals of influence, who needed to be willing to drive the implementation of TQM and engage others in the process. In NPT terms, this is known as 'initiation'. Thus, the theme mapped into the initiation sub-construct was:

- Top management commitment and support (facilitator of TQM implementation).

6.12.1.2 Legitimation:

Resistance from doctors and other staff, with regard to change and the aims and process of TQM were found to strongly affect their likelihood of involvement. This became evident in the analysis of data from both Case Studies; representing a key barrier to successful TQM implementation. It was mentioned by interviewees from each of the Case Study Hospitals:

Honestly, in the beginning, the idea was completely new for doctors, so the hospital faced difficulties in getting them involved, prompting them and getting them to believe in the programme and its value. It was quite challenging for us and still is, so the hospital finds resistance from them [with regard] to following TQM standards. I think that this is because most of the specialists and consultants are employed from outside the hospital, so they consider the tools, procedures, policies, standards and methods of TQM to be abstract and irrelevant to individual patient care... I believe that this could be a reason. (Interviewee M2)

In our hospital, we are faced with many barriers to our TQM implementation. It was clear that some people were unwilling to fully implement TQM, due to the lack of a culture of quality. This was the main problem at the beginning; as you know, not everyone likes change. (Interviewee M1)

The feeling amongst staff that it was right for them to be involved in TQM implementation is also recognised in NPT terms, namely as 'legitimation', whereby two of the themes relating to barriers were mapped to this sub-construct:

- Resistance from doctors
- Staff resistance to change.

6.12.1.3 Enrolment

The analysis of data from both Case Studies highlighted that teamwork, communication, the recruitment of qualified and efficient hospital managers (facilitators of TQM implementation), and patient involvement (a patients' feedback system to improve quality) were key facilitators of TQM implementation in the two Hospitals. The strategies used in both Case Studies to engage (buy-in), sustain that engagement, and help secure TQM implementation in NPT terms fell under the sub-construct of "enrolment", to which four themes were mapped as facilitators:

- Teamwork (facilitator of TQM implementation)
- Communication (facilitator of TQM implementation)
- Recruitment of qualified and efficient hospital managers (facilitator of TQM implementation)
- Patient involvement (the Patients' Feedback System to Improve Quality).

A full description of the above is presented in Table 6.13, below:

Table 6.13: Mapping the key themes, relating to the findings for barriers and facilitators in the two Cases Studies, into an NPT cognitive participation construct

NPT constructs and sub-constructs	Key Themes	
	Barriers	Facilitators
<p>Initiation: The key people must be willing to drive TQM implementation and involve other staff.</p>		Commitment and support from the top management
<p>Legitimation: Ensuring that individuals feel right about being involved in TQM implementation at Hospitals A and B, and also that they can make a valid contribution to these TQM programmes in each Case Study.</p>	Resistance from doctors Staff Resistance to change	

<p>Enrolment:</p> <p>The strategies used by Hospital A and B to engage (buy-in)], sustain that engagement, and help secure the implementation of TQM practice within them.</p>		<p>Teamwork</p> <p>Communication</p> <p>Patient involvement (the Patients' Feedback System to Improve Quality)</p> <p>The recruitment of qualified and efficient hospital managers.</p>
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6.12.2 Collective Action (Work Involved in Implementing TQM)

In NPT terms, this construct also referred to the role and availability of resources (both financial and human), as well as training. Collective action is the work that people do to enact or operationalise a new practice (operational work), which includes whether staff are able to perform the tasks required of them, have the right skills, and are adequately supported by the host organisation (Hospital A and B). The themes mapped to this construct and its sub constructs were:

6.12.2.1 Skill-set Workability:

In NPT, the sub-construct of 'skill-set workability' demonstrates how well TQM processes correspond to existing work practices and whether those implementing TQM have the necessary skills and training. In the analysis of data from both Case Studies, it was revealed that training and staff awareness were the main facilitators of TQM implementation:

[...] and it (TQM) requires a good training programme... this is very important for the success of TQM in any organisation. (Interviewee M3, Case Study A)

We have established training programmes. These programmes are focused on staff who do not have enough experience, or those who have low performance levels, in order to improve their productivity and minimise mistakes. (Interviewee M2, Case Study B)

Accordingly, one theme relating to facilitators was mapped to this sub-construct:

- Training and staff awareness (facilitator of TQM implementation).

6.12.2.2 Contextual Integration:

The NPT term, 'contextual integration' is a sub-construct that refers to how well implementation aligns with the overall goals and capabilities of an organisation or institution (in this case, Hospital A and B). Is the TQM a good fit for the respective Hospital's goals and aspirations? Moreover, do Hospital A and B have the financial and staff capacity (or will) to support the TQM practices? Four themes from the findings were mapped to this sub-construct, as listed below:

- Lack of motivation, low wages and poor incentives (barriers to TQM implementation in Case Study A).
- Staff shortages and high staff turnover (barriers to TQM implementation in Case Study A).
- Motivation, good wages and good incentives (facilitators of TQM implementation in Case Study B)
- Cost of TQM implementation (barrier to TQM implementation in both Case Study A and B).

A full description of the above is presented In Table 6.14, below:

Table 6.14: Mapping the key themes relating to the barriers and facilitators of TQM implementation, based on the findings from the he two Cases Studies, into the NPT collective action construct

NPT constructs and sub-constructs	Key Themes	
	Barriers	Facilitators
Skill-set workability: How well TQM processes align with existing work practices and whether those implementing TQM have the appropriate skills and training.		Training and staff awareness
Contextual integration: The degree to which the implementation aligns with the overall	Staff shortages and high staff turnover (Case Study Hospital A) Cost of TQM Implementation	Motivation, good wages and good incentives (Case Study Hospital B).

<p>goals and capacities of the organisation concerned. Is the TQM a good fit for the Hospitals' goals and aspirations, and do the Hospitals have the financial and staff capacity (or will) to support TQM practice?</p>	<p>Lack of motivation, low wages, and poor incentives (Case Study Hospital A)</p>	
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6.13 Chapter Summary

This chapter has offered the results the data gathered from multiple sources in both case study hospitals. The analysis of data was undertaken by considering the raw data and offering it under a number of themes. The choice of the case study as a strategy for the current study research and the data collected from multiple sources, including face-to-face interviews, document reviews and observation. The analysis was supported by interview transcripts. The findings gained from three methods were mapped into the two constructs of the NPT. In the following chapter the results will be discussed.

Chapter 7 Discussion of the Research Findings

7.1 Introduction

This chapter is organised into three sections. In the Section one the key findings will map to NPT. Using these, each finding will map to the appropriate construct. Following this, the chapter will discuss the empirical results of the two Case Study Hospitals, linking them with the findings from the Literature Review and considering the research implications including categorising the barriers and facilitators that impact the implementation of TQM in Jordanian hospitals. Finally, this chapter ends with the reflections on the research philosophy and methodology and researcher`s own reflections on the process of conducting this project.

7.1.1 Synthesis of Main Results and Mapping to NPT

The current study has identified the main barriers and facilitators relating to the process of implementing TQM, as identified across 11key themes: commitment and support from the top management; training and staff awareness; cost of TQM implementation; staff shortage and staff turnover; resistance to change, especially from doctors; motivation, good salary and incentive; lack of motivation, low wages, and absence of incentive; communication; teamwork; the recruitment of qualified and efficient hospital managers; Staff Resistance to change, and patient involvement (a patients` feedback system to improve quality).

This section will demonstrate how the main study findings map onto the project`s underpinning NPT theoretical framework and in so doing, will enable a better understanding of the barriers and facilitators involved in TQM implementation in Jordanian hospitals.

7.1.1.1 Cognitive Participation (*Participation in TQM*)

The findings of the current study provide evidence to show that commitment and support from the higher management was an important facilitator of TQM implementation in the Hospitals. In each Case Study, the participants emphasised that their higher management had welcomed the TQM and stated the belief that it was beneficial to their Hospitals, even in terms of service in general.

The study findings therefore identified a positive association between commitment and support from the higher management and TQM implementation, which aligns with findings from other recent research, where leadership was found to have a significant influence on

such a process by providing staff with guidance and support (Lanteigne and Bouchard, 2016). NPT draws attention to the significance of commitment and support from the higher management through the sub-constructs of initiation and enrolment, which highlight the role of key individuals in driving the process of implementation. The TQM philosophy is that everyone should be involved; particularly emphasising the essential role of higher management in transforming a culture into a culture of quality (Parsley and Corrigan, 1999).

In addition, it should be stated that the higher management should be willing, committed and supportive of TQM implementation; driving it and helping to initiate other staff into NPT. Most of the participants commented on such activities. The factors that contributed to this involvement of all staff included incorporating their perspectives into the implementation process; allocating responsibility to staff, as appropriate; assigning qualified staff and managers who would support continuous quality improvement, and explaining the philosophy behind the TQM process. This commitment and support from the higher management created a sense of ownership of the process, which in turn reflected positively on staff commitment to TQM. Not all staff chose to participate, however, which suggests that there is still some work to be done in terms of staff engagement and willingness.

In the current study, communication and teamwork were identified as important facilitators of TQM in Jordanian hospitals. In NPT terms, this is referred to as cognitive participation: the sub-construct of enrolment represents the organisation or re-organisation of groups to facilitate and promote the practice of individuals 'buying in' to the implementation. It was subsequently found that teamwork and communication helped create a positive organisational culture, where experience and responsibilities were shared and distributed.

This current study identified communication as a facilitator of TQM implementation in Jordanian hospitals, because it is a strategy that encourages staff engagement by opening up free channels of communication, ensuring that staff are aware of the value and benefit of TQM, while at the same time recognising and rewarding their efforts. Thus, effective communication plays a significant role during the implementation of change and quality (Lanteigne and Bouchard, 2016, Avsian-Kretchmer et al., 2004). Teamwork also has the potential to act as a basic barrier or facilitator of TQM. As such, ensuring effective teamwork was identified as a key step in the TQM implementation process. Teamwork is necessary to help identify and manage issues of quality and safety (Leonard et al., 2004). The interviewees recognised that during TQM implementation, teamwork helped break down the barrier of resistance from doctors. Thus, teamwork was stressed as essential for

overcoming doctors' resistance when implementing TQM in the Case Study Hospitals. Moreover, the commitment of the higher management to promoting teamwork was a vital factor in this project, mainly where it affected staff engagement and involvement in the TQM implementation. Additionally, the application of NPT made it clear that this entails 'doing' or enactment; namely, that communication and team-building are task-driven activities.

It thus follows in this study that the recruitment of qualified and efficient hospital managers, capable of leading their hospitals to success, was identified as a major facilitator of TQM in Jordanian hospitals (Case Study B). NPT also draws attention to the importance of recruiting qualified and efficient hospital managers through sub-constructs of enrolment. Moreover, in the application of NPT, it was suggested by a number of interviewees in this study that it was necessary to engage the 'right' professional groups (enrolment). It was identified here that efficient managers must be able to develop clear goals, effective policies, and creative procedures. Besides, they must constantly act as agents of change in the adoption and implementation of continuous quality initiatives, in order to attain their hospital's aims and objectives. Thus, the sub-constructs of enrolment indicate that the strategies used to engage stakeholders (buying-in) must also serve to sustain that engagement and help secure TQM implementation in terms of NPT. In NPT, the cognitive construct suggests that in order for staff to participate in TQM, they should first identify it as legitimate; in conformity with their standard; capable of providing a high degree of quality, and worthwhile (Mair et al., 2012).

Meanwhile, the current study findings indicate staff resistance to change and resistance from doctors as a serious barrier to TQM implementation. In NPT terms, this means that older staff and doctors may be unwilling to get involved and drive implementation (enrolment), seeing themselves as unfit for the task (legitimation). However, the current findings illustrate that this barrier was the result of some of the doctors and specialists, who were indirectly employed by Hospital A, lacking the perceived willingness to participate in the TQM process. Others regarded TQM as irrelevant to the treatment of patients, but rather beneficial to the Hospital administration. Considered in this study was the powerful position of doctors and their potential to affect TQM implementation by resisting it.

The findings also illustrate that patient involvement (a patients' feedback system to improve quality) was a facilitator of TQM in both Hospitals. This facilitator falls within the NPT enrolment sub-construct. It indicates how the Hospitals used strategies to engage staff (buy-in), sustain that engagement, and help secure the implementation of TQM.

7.1.1.2 Collective Action (Work Involved in Implementing TQM)

In NPT terms, this is the construct that focuses on the role and availability of resources (whether financial or personal) and training at both Hospitals to operationalise TQM implementation. An important facilitator of the TQM implementation process was the provision of training and staff awareness. The interviews, document analysis and observations revealed that staff in both Hospitals were provided with training in several TQM topics. There was also clear evidence that taking part in TQM boosted the employees' personal sense of involvement and enhanced their skills. Therefore, the present study findings point to training and staff awareness as important facilitators of the TQM implementation process at both Hospitals. Meanwhile, the NPT sub-construct of skill-set workability was also demonstrated in the current study; in consideration of how well the TQM processes corresponded to existing work practices, and whether the staff implementing TQM in each Case Study had the appropriate skills and training. Although the TQM Standards and all documents related to the programme were in English, the training was often delivered in both English and Arabic, as appropriate for all Hospital staff. In fact, training was highlighted in this study as an essential component for overcoming resistance to new hospital initiatives (Seren and Baykal, 2007).

In NPT, contextual integration refers to the degree to which implementation aligns with an organisation's overall goals and capacity. Is the new practice (TQM) a good fit with the hospital's aspirations and does the hospital have the financial capacity (and will) to support the new practice (TQM)? (Finch, 2012). The present study identified staff shortages and turnover as issues in Hospital A. Nevertheless, the TQM process requires sustainability and experience. Therefore, staff shortage and staff turnover were identified as a serious barrier to successful TQM implementation. As a knock-on effect, constant staff turnover tends to lead to reduced understanding (coherence) and participation (cognitive participation), as new staff have to be brought 'up to speed' with the aims and tasks of TQM (Ongori, 2007; Richman et al., 2008). In addition, the sustainability of TQM is largely reliant on sufficient time and financing for its initial development, ongoing operations, staff training and management, and any improvements suggested as a result of monitoring (Kedar et al., 2014). Thus, the cost of TQM implementation were mentioned in both Case Studies, highlighting it as another major barrier affecting several aspects of the TQM implementation programme, including staffing issues, infrastructure, and training.

A lack of motivation, low wages, and absence of incentive were also identified as important barriers to TQM implementation in Hospital A; leading to increased staff turnover and difficulties in recruiting new staff. Therefore, in order to address the issue of staff shortage and high staff turnover, hospitals should consider ways of motivating their staff to stay and contribute to TQM implementation. This would ensure continuity of knowledge, skills

and expertise. There also needs to be a better allocation of human and financial resources to support the tasks required. Indeed, personal pride appeared to be a strong motivating factor in this study (Leonard and Masatu, 2010; Galletta et al., 2011). Thus, motivation, adequate wages and employee incentive were identified as facilitators of TQM implementation in Hospital B.

7.1.2 Case Study Discussion

This section provides a discussion of the research and draws together findings that are unique to the Jordan environment from the perspective of the staff at one private and one public hospital and barriers to successful TQM implementation.

7.1.2.1 Commitment and Support from Top Management

Participants from the two case study hospitals highlighted that their top management team were committed to, supportive of, and engaged in, the process of the implementation of TQM and that this support and commitment were intensified during the early stages of the process - as reflected in comments made by interviewees in Case Studies A and B (Chapter 6). This finding is supported by a Canadian study conducted by White et al. (2016) exploring healthcare quality and safety. It centres upon healthcare leaders and claims that applying quality as a means of enhancing healthcare requires holistic support, as well as committed managers and leaders, who can ensure the strategic direction of the organisation, encourage a culture of quality, and be ready to provide the necessary tools for teams to accomplish their work.

Another significant point derived from the current findings regarding commitment, support and engagement from higher management in each Case Study Hospital, is the significance of the role of higher management in the success of TQM implementation. Top management were found to be committed to facilitating and encouraging staff in the decision-making processes, in terms of leadership roles and resource allocation. In fact, they were cited as front runners in both Case Study Hospitals, where the outcomes reflected their capability, skills, support and commitment. It would therefore seem that TQM cannot be fully implemented without the total commitment of higher management.

The findings from the interviews demonstrated that in both case studies, the top management team had played a crucial role in supporting the implementation of TQM at their hospitals and this consisted of training staff to perform their tasks effectively. The findings from the interviews in Case Study A demonstrated that participants also realised the importance of teamwork for overcoming barriers such as resistance from doctors; here, they paid significant attention to building a culture of collaborative teamwork and the value in implementing TQM and TQM-based management. As a result, it would seem that TQM-

oriented management largely hinges upon teamwork, and should be regarded as a top priority.

In this study, TQM is indicated as being highly influenced by top management team, with the latter playing a significant role in the implementation and success of TQM in hospitals. TQM is in fact a management concept, and as such, the findings indicate the importance of commitment from senior management and their level of involvement, if TQM is to be a success. These findings are consistent with data gathered from the literature, where it is widely claimed that TQM implementation is likely to be unsuccessful if there is any negligence or unwillingness on the part of higher management to support and commit to the processes involved (Stephen and Bula, 2017, Jun et al., 2006).

In addition, Assarlind and Gremyr (2014), found that higher management played a necessarily prominent role in endorsing quality at every organisational level; adding that, their role went beyond commitment to, and support for, intuitive hospital quality programmes through their active engagement in the implementation process. The participants in Case Study A stated that the commitment and engagement of their senior managers had set a good example to other staff, motivating them to engage in, and commit themselves to, TQM practice in the hospital; here, managers are considered as role models. It therefore appears that the influence of leadership commitment and engagement has helped create a TQM culture in the hospital, as reflected by interviewees in both case studies (see Chapter 6). These primary findings are consistent with Al Ghamdi et al. (2016), who argue that leadership commitment and engagement play a key role in building an effective TQM culture and increasing staff commitment to an organisation's TQM implementation. According to Kanji (1998), Youssef et al. (2018) and Sallis (2014), top management must be actively involved in creating a TQM culture, with a clear vision, thus fulfilling the following management roles:

- Defining a mission, vision and goals to promote a culture of quality
- Establishing a set of shared values
- Defining a quality strategy
- Effectively coordinating the use of resources to improve financial performance
- Establishing goals and systems to enhance customer satisfaction
- Establishing effective information systems and using objective data
- Promoting human resource development through training and recognition
- Communicating, defining and motivating continuous improvement

In this study, the participating managers, nurses and doctors felt that the leadership's vision for TQM implementation was clear to all staff. This relates to the first point cited above by Zydziunaite (2012), White et al (2016), Al-Refaie and Hanayneh (2014) also

quote Yousefinezhadi et al. (2017), who emphasises that vision is a crucial element of organisational success. They add that the management must encourage their staff to believe in the organisation's vision, viewing this as significant for bringing about change. According to previous studies, the encouragement of staff through their managers to believe in their organisation's vision should therefore be the basis for embedding vision and accompanying values. This was evident at the start of the TQM implementation process in both Case Study Hospitals. However, top management must also accept responsibility for, and commitment to, the mission prior to communicating it to staff, as indicated by the study participants. The facilitators of this process consist of support from the senior management, with their engagement in, and commitment to, TQM implementation from the outset.

It appears that the top management teams in each of the Case Study Hospitals communicated their organisation's vision very effectively to staff of all levels and across all disciplines; therefore, their vision was shared by front-line staff, for whom it was absolutely necessary to engage (see Chapter 6). The findings of this study are consistent with data reported by several other researchers, such as Seetharaman et al. (2006), Hoffman (2002) and Rasoolimanesh et al. (2015), who advocate that organisational vision and mission should be made clear to all employees through periods of change. More specifically, in a study conducted in Kenya, Bonventure (2014) found that the lack of top management commitment was a barrier to the implementation of quality programmes in small and medium-sized enterprises (SMEs), while Javed (2015), likewise, emphasised the importance of management commitment. Moreover, Goetsch and Davis (2000) and Yami et al. (2000) highlight the need to publicise and communicate the benefits of such a system to employees in order to ensure continuous improvement.

According to the interviewees in Case Study A (a manager and a nurse), the TQM process began in 2014 and was then suspended to make some changes to higher management. This impacted on the degree of commitment at all levels. The TQM implementation was later resumed, and the Hospital restarted the process after signing a consultation contract with the JCI to prepare the Hospital for TQM implementation. This ensured that the top management in this Hospital took the process seriously, and as a result, the majority of participants, who were from different disciplines (managers, nurses and doctors), were united in their approach during the latter phase of the TQM implementation. Additionally, the commitment and support of top management was enhanced, leading to more accessible resources and better progress throughout the implementation. This finding is supported in the literature by McFadden et al. (2006), who studied the application of quality and patient safety initiatives in a sample of US hospitals, deducing that the greater the commitment of hospital leadership to quality and patient safety, and the greater their

emphasis on, and participation in, these initiatives, the more likely it was that the hospital would actually implement them.

The findings from the interviews in both case studies highlighted that in order to establish an effective and efficient TQM in hospitals, the most important requirement is for the relevant management to form a committee dedicated to fulfilling specific hospitals goals, plans and policies. This findings of this study are consistent with study conducted by Trott and Simms (2017) set out the matters of priority for the management committee and these are: supporting development, reviewing institutional objectives and goals and Providing a suitable direction through an appropriate planning system.

7.1.2.2 Training and Staff Awareness

The findings from the three research methods adopted in both Case Studies (interviews, document analysis and observation) identified that training and awareness are the key facilitators of successful TQM implementation in Jordanian hospitals. For example, the researcher noted during the data collection for each case study, that most staff had been informed of TQM implementation practices and had attended training courses and lectures on quality and TQM standards during the execution of the project. This was due to the existence of an ongoing training programme at their hospitals. Staff knowledge and awareness were therefore adequate, and as such, it may be deduced that training and awareness are amongst the most important facilitators in implementing TQM standards in Jordanian hospitals. The findings suggested that training encouraged and engaged staff in implementing TQM in their practice. As a result, it can be concluded that training and staff awareness could be vital components of the success of TQM in a hospital setting. This finding is supported by other studies that stress the significance of continuous staff training to support quality programmes implementation in any organisation (Sweis et al., 2016, Terzic-Supic et al., 2015, Talib and Rahman, 2015, Munir Ahmad and Elhuni, 2014, Ismail Salaheldin, 2009). In addition, appropriate staff awareness promotes successful implementation; for instance, Holden (2007) states that staff need to undergo systematic training in quality management in order for employees to be adequately empowered. Moreover, Talib and Rahman (2015) suggest that through staff training and continuous education, staff in an organisation will learn how to effectively apply quality management.

Additionally, the findings from the interviews indicated that the training was deemed important for overcoming barriers faced by Hospital B while attempting to implement TQM, such as the resistance to change. This finding also fits with data derived from a study conducted by Terzic-Supic et al. (2015) and Seren and Baykal (2007), who claim that training is crucial in overcoming resistance to change when implementing new initiatives in hospitals.

In addition to the above and previously mentioned evidence, primary research finds that most of the employees had received information about TQM implementation and this was verified by document analysis. Most of this documentation had originally been drafted in English but was later translated into Arabic for the benefit of staff with poor English reading, speaking and writing skills. However, some staff had omitted to declare that their English was poor while attending training courses, which could have presented a significant barrier to successfully implementing the programme. Nevertheless, the fact that nearly all the documents linked with TQM implementation in both case study hospitals had been translated into, or produced in, Arabic ensured that staff at all levels understood the TQM standards. Thus, the researcher recommends that managers and decision-makers in Jordanian hospitals ensure that all documentation for successful TQM implementation is translated into, or drafted in Arabic, in order to facilitate training and information exchange. In addition, the researcher recommends establishing an in-house English language-learning centre, where all staff can undertake English language courses, as required.

7.1.2.3 Resistance from Doctors

It was generally agreed amongst the participants in Case Study A that resistance from doctors is a barrier to TQM implementation in their Hospital. The reasons for this resistance were subsequently identified; for example, not all doctors and specialists are directly employed by the hospital, but work in their own clinics with limited loyalty to other services. Another reason for doctors' resistance to TQM in Case Study A was that they regarded TQM tools and approaches as external, considering them to be 'abstract' and unrelated to patient care or treatment. Moreover, they tended to think that TQM was only beneficial to managerial effectiveness and service quality, but irrelevant to actual medical treatment. Besides, the findings of the interviews highlighted that doctors were resistant to TQM implementation because of their busy schedules. This was supported by the findings obtained from observation methods (Chapter 6). It is therefore unsurprising that doctors have this attitude, given that they are sub-contracted by private hospitals, while also running their own clinics. Moreover, their income is based on the number of patients they treat, and the number of medical procedures they perform. This could be means that doctors are more concerned with quantitative (albeit medically effective) performance, than with the quality of services across other domains of the hospital.

Nevertheless, this current study has identified approaches and strategies to overcome this barrier, resulting from doctors resisting TQM implementation practice in Hospital A. These strategies include effective communication, teamwork and proper performance evaluation systems, as highlighted by of the interviewees (Sections 6.5.1.3 and 6.5.1.4). This fits with parallel results reported in the literature; for example, Raymond (2002) and Pomey et al. (2004) affirm that effective communication, participation and teamwork are the best

ways of overcoming resistance to TQM implementation amongst stakeholders in organisations. However, the finding that resistance to TQM was most apparent amongst doctors in one of the healthcare providers studied here (i.e. Case Study Hospital A, a private hospital) is not apparent in the literature, either globally or locally to Jordan. To the present author's knowledge, this has not been researched before and it is therefore recommended that further in-depth investigations are conducted to gain a better comprehension of the phenomenon.

7.1.2.4 The Cost of TQM Implementation

According to the interviewees and the document analysis techniques applied in both case studies, the cost of TQM implementation is identified as a barrier in the current context. This cost is closely associated with the infrastructure of both case hospitals when they rolled out their implementation process. The majority of participants in Case Study A showed that most of the cost of TQM implementation in their hospital was linked to consultancy, a training programme, and the upgrading of certain components of the infrastructure, such as fees and controlled negative pressure in isolation rooms to comply with the international standards. Meanwhile, the high cost of TQM in Case Study B was linked with consultancy fees, safety requirements, and the cost of improving the hospital's infrastructure. These findings are supported by other studies, which have shown that the relatively high cost of certification is a barrier facing most organisations, due to the need to provide training programmes and pay consultants to facilitate the registration process (Ashrafi and Bashir, 2011, Seren and Baykal, 2007). Furthermore, the cost of upgrading the infrastructure to meet international standards and the initial development costs of certification are also found to cause problems (Dickenson et al., 2000).

The unavailability of qualified local expertise to provide TQM consultancy in preparing the Case Study Hospitals for TQM added to the above-mentioned costs; the interviews and some of the results of document analysis in both Case Studies highlighted that consultants' expenses were largely responsible for these high costs. This is consistent with research findings in other sectors (Dickenson et al., 2000, Galyani Moghaddam and Moballeghi, 2008, Al Attal, 2009). Indeed, in Case Study B, consultancy costs were particularly found to be an issue. Moreover, accessing the funds to meet these high costs was a problem highlighted by the findings of interviews in Case Study B, which is supported by the review of its documentation.

Another cost-related finding, on which the participants in Case Study B were agreed, related to the timely receipt of funding from the Jordanian Ministry of Health's (JHM) budget. On numerous occasions, Hospital B's requests for financial support were approved by the Jordan Health Ministry (JHM) with regard to TQM implementation, but the release

of funds was slow due to heavy bureaucracy and delays in the decision-making process. The respondents in Case Study B clarified that they did not have the authority to make decisions over purchases relating to TQM implementation because of centralised control of the health budget and obstacles in the various bureaucratic procedures. The researcher remarked upon the lack of coordination between the funding body and the hospital leading to delays. This delay in funding was highlighted as a specific problem of public hospitals. For example, the researcher reviewed a number of documents on the significant improvement made to Hospital B's fire alarm system, which appears to have been delayed by the slow approval process for releasing financial resources. As declared by several interviewees, the cost of TQM implementation was comparatively high, but it was confirmed that the main difficulty arose from Hospital B in not receiving financial support on time. The above finding is consistent with earlier research, where financial support proved to be a major barrier affecting various aspects of quality programmes, including staffing issues, the dissemination of information and training (El-Jardali et al., 2014).

7.1.2.5 Communication

This study found communication to be a facilitator of TQM implementation in Jordanian hospitals and the interviewees in both Hospital A and B understood it to be the backbone of TQM culture in their hospitals. The interviews were conducted with all categories of employee: managers, nurses and doctors, as well as through document analyses and observations, which revealed several activities and initiatives to improve all aspects of communication in the case study hospitals. These efforts involved regular departmental and intradepartmental meetings, and hour-long weekly open meetings for all hospital staff with the Quality Office and top management to discuss matters concerning quality and the TQM implementation process. It was implied that significant efforts had been made by the top management in both Hospital A and B to promote good communication and the participants were able to identify many areas that had improved, such as extensive feedback and a common understanding amongst all staff. This shared understanding had a positive effect on the TQM implementation in both hospitals, which is supported by Basu and Dutta (2008), who reveal communication as pivotal to hospital management practice, especially in relation to quality programmes. Similarly, Sila and Ebrahimpour (2003) postulate that communication plays an important role in a successful implementation of TQM; indeed, they explain the significance of effective communication across functions and work units to ensure that clients' needs are met and that an environment of trust and knowledge-sharing is consequently created, thereby fostering a common understanding across functions.

A noteworthy finding regarding communication in this study concerns the regular weekly meetings between Quality Office staff and all other members of the workforce in each

Hospital, where matters of quality, TQM and patient safety were discussed. This study found this particularly useful for answering various questions arising from the process on a regular basis, which promoted staff inclusion and collaboration. For example, the majority of the interviewees in Case A declared that this regular Wednesday meeting played a key role in keeping the hospital management and staff updated on their Hospital's progress in implementing TQM, which is a finding supported by previous studies (Irfan and Kee, 2013, Mohammad Mosadeghrad, 2014). Here, each hospital's internal communication was recognised as central to the success of TQM adoption. Additionally, this open communication was maintained to help strengthen engagement and ensure the free flow of information; both of which are necessary for a successful TQM implementation (Valmohammadi and Roshanzamir, 2015).

The findings from the interviews highlighted that the majority of interviewees in both hospitals reported the influence of the Quality Office's role in promoting effective communication between staff concerning the implementation of TQM standards. The respondents declared that the meetings organised during the TQM implementation were very valuable in enhancing communication between all hospital staff and helped promote an understanding of the requirements imposed by the TQM standards. The findings of the interviews supported by the findings obtained by the observation. Additionally, This finding fits with other researches, which also finds that regular and effective communication is essential for all stages of a change process (Mohammad Mosadeghrad, 2014, Gherbal et al., 2012).

Another significant finding concerning communication in this current study consisted of the use of information technology (IT) by health informatics units in Hospital A to facilitate and enhance communication between employees during the implementation of TQM. Here, the Hospital's intranet was deployed to communicate all relevant policies, procedures and plans to staff. The Quality Office in Hospital A uploaded question-and-answer (Q&A) materials to the intranet to help prepare staff and help raise their comprehension of the TQM requirements. Thus, communication was identified in this study as a facilitator of successful TQM implementation in healthcare practice. It appeared to enhance staff awareness, informing them about the TQM process and updating them on its progress. All staff at Hospital A consequently used the intranet to gain quick and easy access to knowledge concerning TQM requirements. This finding is consistent with the work of numerous authors, who cite the importance of IT in enhancing communication during TQM implementation (Mjema and Mweta, 2003, Cholasuke et al., 2004).

7.1.2.6 Staff Resistance to Change

There was broad agreement amongst interviewees in Case Study B that staff resistance to change at all staffing levels was a particularly clear barrier at the beginning of the process. This related to a lack of information and awareness regarding the nature of the process. Later, however, any remaining resistance to change was as a result of workplace culture, differences in priorities between departments, and low staff motivation and morale, as confirmed by the interviewees who remarked on people's fear of a rise in workload; it was difficult to convince them of the long term benefits. These findings are consistent with the relevant literature, as concluded by El-Jardali et al. (2014), who point out that a key area of difficulty in implementing a quality programme in an organisation is workload and stress on healthcare staff, especially during the initial stages.

The present study identified the reasons for staff resistance to change in Case Study B; stating that the Hospital's priority should not be TQM implementation as such, but ensuring the availability of all equipment, medical consumables and other essential resources for the new departments to open as planned, resulting in high quality services and enhanced patient safety. Some of the managers were relatively content with the hospital's existing system and did not see any reason to implement change. However, some doctors and nurses perceived the implementation of a new quality system as a means of enhancing services in general, as well as improving patient satisfaction, quality and safety; while others saw it as an instrument for their managers to monitor them and increase their workload. These perceptions subsequently seems to be caused resistance to change. Nevertheless, the management treated the system as a tool for improving quality and patient safety. This finding is supported by some studies, which have demonstrated how staff may view TQM as a tool to make them work harder for fewer rewards (Rad, 2005). For instance, according to Ullah et al. (2011), the main barrier to TQM implementation is staff resistance to change; a view that is shared by Subrahmanya Bhat and Rajashekhar (2009).

Most respondents in Case Study B stressed that due to resistance to TQM implementation from doctors, older members of management, and certain other employees, the higher management team of Hospital B further empowered the Quality Office to develop policies, procedures, plans and other documentation on behalf of the resistant departments.

This statement supports the notion that successful TQM implementation needs the organisation involved to consider a change of culture as an essential factor because TQM gives rise to a complete change in the feelings, attitudes, behaviours and job-related practices of an organisation's staff.

In light of the above, it was revealed in this study that the engagement of doctors and nurses was one of the most significant factors of a successful TQM implementation, but also one of the most challenging; there were significant findings related to staff resistance to change from nurses and doctors during the early stages of implementation in Case Study B. As a result, a hospital's quality management strategy needs to include different methods of ensuring that doctor managers fully understand and thus lead quality programmes with due regard for professional sensitivities. This recommendation includes doctors in formal positions, as well as highly respected and influential 'opinion-formers'. Methods that will ensure the involvement of all doctors in a TQM programme typically consist of training, educational activities, incentives and motivation.

It may be understood from these current results that the higher management team of Case Study B requested the performance of all work on quality from every department of the hospital, which indicates their high awareness of the practicalities of implementing TQM. Fernandez and Moldogaziev (2011) propose that one possible action for enhancing TQM implementation is to increase support for employees; empowering them and recognising their efforts.

In brief, staff resistance to change was found to be the main barrier to TQM implementation in Case Study B. Therefore, the researcher recommends considering a change of work culture as a crucial factor to consider, as it appears that TQM causes a shift in the feelings, attitudes, behaviours and job-related practices.

7.1.2.7 Motivation, Wages and Incentives

Other potential barriers to TQM implementation, found only in Case Study A (a private hospital), consisted of a lack of motivation, low wages and poor incentives. The results showed that insufficient staff motivation served as an obstacle to TQM implementation, with the participants in Case Study A declared that private hospitals fix staff salaries and annual wage increases under rigid policies, which prevents staff from receiving any wage increases for a period of five years. As a result, private hospitals are often vulnerable to high staff turnover, with the loss of experienced staff and a lack of loyalty. The effect of this barrier was clear from the interviewees' feedback with regard to Case Study A regarding the attraction and retention of good practitioners.

It may be observed from these findings that motivation, good wages and incentives could help address the barriers to TQM implementation in Case Study A, especially reducing staff shortages and turnover, which was highlighted in-depth by interviewees who described their visions for staff retention while demonstrating empathy towards the TQM strategy (Chapter 6). These findings are consistent with conclusions drawn by (Das et al., 2011);

namely, if an organisation fails to enhance staff motivation through various benefits, it is likely to lose its best employees to organisations that offer better conditions.

Additionally, the findings of the current study are consistent with those published in earlier literature. For instance, Lambrou et al. (2010) found that when a hospital initiated a system to motivate employees, healthcare service quality was enhanced. Moreover, other studies have concluded that job satisfaction cannot be assured, if there are no incentives for staff, and if they are not given sufficient responsibility. As a result, the quality of care that they provide may fall, with a negative effect on patient satisfaction (Khdour et al., 2016, Phillips and Edwards, 2008). In addition, Sultan (2012) proposes that a hospital adopting a system for motivating and rewarding its staff will attract highly skilled staff from other establishments. Furthermore, A'aqoulah et al. (2016) recommend better incentives for nurses in Jordanian hospitals, with greater acknowledgement of their efforts.

With regard to the interview data gathered in Case Study A, a lack of motivation, low wages and an absence of incentives were suggested as possibly being linked to the type of hospital concerned, which is private. This is consistent with Jang and Lin (2008), who found that creating a motivational environment in any organisation requires commitment from managers, who should prioritise extrinsically motivating factors, such as good salaries and rewards, and intrinsically satisfying factors, such as job satisfaction. In contrast, the findings for Hospital B showed that sufficient staff motivation, good wages and other incentives were the main facilitators of TQM implementation. The responses from most of the participants sampled in Hospital B indicated that the hospital offered good salaries and benefits to its employees. This finding is supported by other studies in the literature (Antony and Desai, 2009, Yunis et al., 2013), whereby motivation, a good salary and a system of incentives improved hospital performance and increased staff morale and productivity. Furthermore, Lin and Jang (2008) found that staff motivation enhanced service quality.

Another significant and unique finding of this study in relation to motivation, salary and incentives is that Jordanian public hospitals offer more of these advantages to their employees than do private hospitals. Therefore, further in-depth research is highly recommended in this area to gain a deeper understanding of the phenomenon. As a result, the researcher proposes that the management in Jordanian hospitals become more effective in recognising and rewarding talented and productive staff, thus potentially leading to greater efficiency and better services in hospitals and a successful TQM implementation.

7.1.2.8 Staff Shortages and High Staff Turnover

There was widespread agreement amongst participants that staff shortages and turnover were barriers to TQM implementation in Case Study Hospital A. The study found that the staff shortages and high staff turnover were mainly in nursing. This finding is consistent with another study conducted in Jordan by (Ajilouni, 2010), who argues that Jordanian hospitals need to implement new strategies and policies in their healthcare provision, particularly to address the shortage of nurses. The present study deduced that the reason for staff shortages and high rate of staff turnover in Hospital A related to low salaries and a lack of other benefits (Chapter 6). These findings are consistent with (Das et al., 2011), who claim that if an organisation fails to motivate its staff or offer sufficient benefits, they are likely to lose their best staff to other organisations, which do offer more favourable conditions. Furthermore, in the present study, it was found that staff shortages and high staff turnover in Case Study A were increased by the TQM implementation, because most TQM work involves paperwork, and this increases staff workload, adding to their existing responsibilities. As a result, their ability to work to their full potential is impaired, with a consequent impact on healthcare quality. These findings are also supported by A'aqoulah et al. (2016) and Nelson (2008), who demonstrate that a shortage of staff can negatively impact staff performance.

Another finding in Case Study A, with regard to staff shortage and high staff turnover, relates to cost. The study found that there was a constant need to recruit new staff, adding to the hospital's costs and increasing the adaptation time for both existing and new employees, remarked upon interviewees who discuss the impact of training costs for new staff related to retention and a need to retain competent and well trained staff. These findings are supported by other studies, which point to such difficulties being linked with hospital quality programmes (Alaradi, 2017, El-Jardali et al., 2014).

One of the most significant findings of Case Study A relates to a particularly serious shortage of staff and high turnover amongst nurses, which may be due to increased workload for all staff, with subsequently impaired attention and alertness at work. In turn, this can lead to more medical and medication errors, inefficient workflow and delayed delivery of care. It is a finding that corresponds to previous studies, which argue that insufficient staffing levels lead to patients receiving unsatisfactory care, with an increased likelihood of aggression and even violence from dissatisfied patients. As a result, staff may experience interruptions to much-needed rest periods and meal breaks (Abele et al., 2004).

The TQM process needs to be sustainable and encourage full engagement of experienced staff. Therefore, staff shortages and high staff turnover represent a major barrier to its successful implementation in Case Study A. Moreover, as a knock-on effect, continuous

staff turnover can lead to poor understanding and participation, as new staff will need to be 'brought up to speed', regarding the aims and tasks of TQM (Ongori, 2007, Liberatore and Nydick, 2008).

Thus, the researcher emphasises that the problem of staff shortages and turnover deserves special attention from managers and decision-makers in health service organisations in Jordan, since this factor, together with increased cost, can affect quality of care and the maintenance of excellence required for TQM implementation. The researcher therefore recommends that Hospital A reward experience, rigour and high performance amongst its staff through attractive salaries and other incentives to increase motivation and decrease the rate of turnover.

7.1.2.9 The Recruitment of Qualified and Efficient Hospital Managers

The interviewees from Hospital A believed that their hospital managers should be qualified and efficient to lead TQM implementation. This is likely due to the recognition that efficient managers can develop clear goals, effective policies and creative problem-solving procedures. In addition, efficient managers can act as agents of change in the launching of continuous quality initiatives, and thus fulfil the hospital's mission, vision and goals. This is consistent with some of the comments made by the interviewees who discussed the efficient use of hospital resources and the importance of good training and leadership.

This explains why the recruitment of qualified and efficient hospital managers could facilitate TQM implementation in Case Study A, given that managers who are specifically qualified in health service management can motivate employees to meet hospital objectives. In addition, suitably qualified managers are equipped to develop attainable goals and utilise hospital resources efficiently. Moreover, the interviewees highlighted the importance of health service management training programmes, because these programmes enhance management and leadership skills. This finding is supported by the literature, where it is reported that hospital management training programmes are important for all staff, especially for managers and decision-makers (Pillay, 2008).

Aside from the above, the current study findings for Hospital B identify the importance of recruiting suitably qualified and efficient hospital managers to facilitate TQM implementation. It appeared that efficient hospital managers, specifically qualified in hospital management, were capable of empowering staff to participate in the decision-making process associated with leadership roles and resource allocation. They stood as front-runners in Hospital B, where the outcomes reflected their ability and commitment; efficient hospital managers believe that they are accountable to their subordinates. The interviewees from Case Study Hospital B stated that their managers had sufficient confidence in them to delegate tasks, which is consistent with other findings in the

literature, thus concluding that some quality programmes have been successfully implemented due to managers' ability to delegate powers and responsibility to subordinates (Jun et al., 2006).

One noteworthy finding from Case Study A in relation to the recruitment of suitably qualified and efficient hospital managers is that most hospital managers and department heads had undertaken specialised training in health service management. In fact, Hospital B uses different ways of ensuring that nurses and physicians in leadership roles are cognisant of the TQM programme and able to lead it in a way that respects the sensitivities of involved healthcare practitioners. These leaders include those in formal leadership positions, as well as informal 'opinion-formers'. Such an approach ensures that all nurses and doctors are involved in the hospital's management training programme. For example, interviewees remarked on the fact that medical practitioners are not necessarily managers – thus training is imperative. The interview findings correspond to the results of the document analysis, whereby the researcher verified from certain documents that the majority of the nurses and doctors in managerial roles or serving as Department heads had trained or graduated in Health care Management. This is all the more likely, as Jordan has undergraduate and graduate university programmes in Healthcare Management (Ajlouni, 2010).

Thus, the present study found that appropriate managerial and leadership skills and attributes are important for managers in Jordanian hospitals, if they are to achieve successful TQM implementation. This can occur through the recruitment of qualified and effective hospital managers, as well as through the delivery of ongoing training programmes in healthcare management for clinicians. This finding was unique to this study; this facilitator (recruitment of qualified and efficient hospital managers) was not found in the literature.

7.1.2.10 Patient Involvement (Patient Feedback System to Improve Quality)

The findings from both hospitals suggested the involvement of patients (a patients' feedback system to improve quality) as a facilitator of TQM implementation, because successful hospitals continually innovate change based on patients' evolving needs and feedback. It should also be considered that patient satisfaction and the ability to meet patients' expectations has had a direct effect on hospital performance in both hospitals. It is useful to conduct patient surveys periodically to measure changes in the level of patient satisfaction.

One method of measuring patient satisfaction is to gather patients' input via various channels such as surveys, and to combine information to obtain an accurate measure of patient satisfaction. This study also illustrates that patient involvement could be a major

factor in the number of reworks, patient complaints, medical mistakes, equipment errors, poor patient satisfaction feedback, and the failure to meet expectations. As stated by the interviewees from both hospitals, patient feedback helped them determine the reasons for complaints and medical mistakes, allowing them to take appropriate action to minimise these errors and consequently achieve patient satisfaction and meet expectations. It would appear from the responses in both case studies that there is a need for the hospitals to encourage patient involvement in the form of giving patients the opportunity to express their opinions on the quality of care provided as a means of evaluating TQM. These findings are consistent with Alasmari and Douglas (2012), where it is debated that accreditation depends upon patients' behaviour and the extent of their participation in the care delivery process. Again, this finding (patient involvement, via a patients' feedback system) was unique to this study; it was not found in the literature and requires further study.

7.1.2.11 Teamwork

According to the participants' responses and other sources of data, such as documents in Hospital B, teamwork is identified as important facilitator to TQM implementation. It was found to be crucial to the success of TQM implementation in this study, where it influenced the views of the participating doctors, as declared by several interviewees, in particular, Hospital A who stated that teamwork had played a significant role in doctor resistance to change (Chapter 6). It seems that the teamwork enhances the performance of the Hospital A, and it influences work environment and patient care of the hospital. This finding is supported by the existing literature, where, invariably, it is postulated that teamwork can help attain better outcomes than the efforts of a single individual. As a result, teamwork is likely to produce better and more rapid solutions to any existing problem (Fotopoulos and Psomas, 2009, Stough et al., 2000).

According to the participants' interview responses and other sources of data gathered in Case Study A, including Documentations, the management of this Hospital take steps to build a teamwork culture and an environment that is conducive to successful TQM implementation. It seems that the process of implementing the standards TQM fostered teamwork and collaboration due to the development of many multidisciplinary teams who worked together and shared many meetings to achieve the tasks required by TQM. This is achieved by sharing knowledge, experience and information amongst all actors, namely managers, nurses, doctors, consultants and technicians, which corresponds to findings obtained by the interviews and is supported by the results of the documentations. The Jordanian hospital is significantly affiliated with effective teamwork that helps to influence TQM programme and an appropriate working environment. This finding is compatible with previous studies, which indicate teamwork as essential for attaining organisational goals,

as collaborative teams are necessary in the implementation of TQM (Schoorman et al., 2016, Dhensa-Kahlon and Coyle-Shapiro, 2013).

7.1.3 Categorisation of TQM Barriers and Facilitators in Jordanian Hospitals

To categorise the barriers and facilitators affecting the implementation of TQM in practice, it is necessary to explore the most common - in light of the results of this study and the systematic themes identified in the corresponding data analysis. It is reasonable to label and elaborate on a network of variables that pertain to the study context, as identified in interviews, document reviews and observations (Armstrong and Foley, 2003). Moreover, NPT is frequently applied to the work performed by individuals and groups (organisations), as they attempt to integrate and normalise TQM in their institutions and workplaces. On this basis, the application of NPT in this study helped clarify the individual and organisational barriers and facilitators relating to the implementation of TQM into routine work, which involved the consideration of the programme. Accordingly, the current study categorises the barriers and facilitators affecting TQM implementation in Jordanian hospitals into two main factors. As a result, it is expected that the issues underlying these barriers and facilitators will be better understood; moreover, they could inform future studies.

7.1.3.1 Organisational Factors (Barriers and Facilitators):

The barriers and facilitators identified in this study appear to have been created by the management of the hospitals concerned although there were some external barriers identified. The problems were found to arise from the motives and drivers for implementing TQM, as well as the benefits of doing so, and the corresponding commitment and support of the top management for its implementation. In addition, organisational factors were revealed, relating to employees' knowledge and skills regarding TQM implementation, and their awareness of the rules and regulations instituted by their respective organisations (the Case Hospitals). The key factors bearing upon TQM implementation are thus: training and staff awareness; commitment and support from the top management; good communication; and patient involvement (through surveys).

Moreover, some of the barriers and facilitators originated from financial issues, which affected several different aspects of the TQM programmes, including problems with staffing, poor dissemination of information and a lack of training. Staff shortages and turnover were further factors that affected the sustainability of TQM programmes. The reasons underlying these phenomena are thus: high motivation (good wages and incentives); low motivation (poor wages and a lack of competitive incentives) and the overall and significant cost of TQM.

7.1.3.2 Individuals Factors (Barriers and Facilitators)

The barriers and facilitators produced by the behaviour and attitudes of management and staff as regards TQM implementation may be considered as human resource factors. In this study, these were found to include staff shortages and high staff turnover, resistance from doctors, wider staff resistance to change, teamwork (or lack thereof), and lastly the recruitment of qualified and efficient hospital managers.

The implementation of TQM, the researcher extracted barriers to, and facilitators unique, to Jordanian hospitals and categorised the findings, as mentioned in Section 7.1.3

7.1.4 Reflections on the Research Philosophy and Methodology

This PhD has permitted the researcher to grow further and refine his qualitative research skills. He has received training in qualitative research approaches, including qualitative interviewing and thematic analysis, which assisted with the design and application of qualitative components of this PhD. In the body of this thesis, the researcher built upon his experience of conducting a framework analysis, which he found to be constructivist, consisting of inductive thematic analysis. This framework was useful in situations where pre-determined questions needed to be answered, or when organising the results into a theoretical framework, such as NPT (see Chapter 4).

The researcher's philosophical position in this study is characterised by constructivism, since he believes that the realities studied are constructed from the individual's experiences of phenomena, and not from discrete tangible facts that can be measured. He therefore accepts that a person's views and understanding of the world are constructed from their individual perspective; acknowledging that his engagement and personal experience as a researcher are important for understanding the barriers and facilitators of TQM implementation in the hospital under study.

In this study, the researcher employed a qualitative approach to explore, understand and interpret the views and experiences of managers, nurses and doctors, with regard to the barriers and facilitators of TQM implementation in hospitals. This helped contextualise the setting in which TQM was being implemented. Creswell (2003) emphasises that qualitative research methods are required in an inductive qualitative study. Consequently, this approach was adopted to examine the barriers and facilitators of TQM implementation. It resulted in a deeper and more detailed understanding of how TQM can be implemented in hospitals. As such, the qualitative research approach enabled the researcher to gain rich information in response to specific research questions. In addition, the fact of conducting a qualitative study may have enabled a deeper comprehension of how managers, nurses and doctors perceive the quality programme in operation at their hospital. This qualitative approach was in fact exploratory in nature, with the participants being asked 'What', 'Why?', and 'How?' questions.

The researcher acknowledges that in some qualitative studies, it is appropriate to reduce the effect of the researcher (interviewer) on the gathered data. However, a balance must be struck between reducing the influence of the researcher and ensuring that complete and descriptive answers to interview questions are obtained. In this work, the researcher utilised semi-structured interviews with open-ended questions to explore the barriers and facilitators of TQM implementation in hospitals, instead of structured or unstructured interviews. Semi-structured interviews were chosen as the preferred type of interview,

because they facilitate an interview process that is not rigid. As the researcher had a reasonably clear idea of the issues that he wished to explore, the semi-structured interview process presented him with the possibility of addressing more detailed issues. In addition, given that his study involved multiple levels of respondents, the need arose to compare the respondents' perspectives across these levels. The semi-structured interview format enabled him to make these comparisons in an organised manner. Finally, this method helped reduce researcher bias, and facilitated the organisation and analysis of the data obtained. It was also useful for gaining information for the purpose of comparison, as the interviewees all answered the same questions.

In qualitative studies, the researcher is an important instrument of the research and this leads to issues of concern arising over a study's trustworthiness, due to the subjective nature of this type of study. According to Schinke et al. (2012), reflexivity can be understood as a subjective reflection on what the researcher is doing, and how and why this is being done. According to Koch and Harrington (1998) and Hesse-Biber and Leavy (2005), the purpose of reflexivity is for the researcher to constantly apply self-critique and self-appraisal to explain if and how his or her own experiences, values and preconceptions affect the study process. Reflexivity enhances the quality of a qualitative study by improving the reader's understanding of how the researcher's position has affected all phases of the research process.

Reflexivity is therefore the acknowledgement of this interrelationship between the researcher and the study at all points in its execution, this being an important determinant of the confirmability of a study's results. Researchers bring their own biases to a study, including their philosophical stance and theoretical underpinnings, previous experience, personal beliefs, and enthusiasm for the research area. The philosophical stance and theoretical underpinnings of this current study are presented in Chapter 5, highlighting the researcher's professional background as a nurse in the Quality Management Department of a hospital in Jordan. As a result, it may be understood that the researcher has personal views, experience and assumptions about the study area and the implementation of TQM in hospitals, with a potential impact on the analysis and findings of the current research study. Besides, some the interviewees (managers, nurses and doctors) were aware of the researcher's role and may have engineered what was observed, and the researcher's interpretations of those observations, or else modified their answers to the interview questions.

Aside from the above, the present researcher obtained his Master's Degree in Health Service Management and this background could have influenced the research interviews, observations and analysis/interpretation of the study results. Hence, it was very important

to comprehend how such a background may have influenced the researcher's perceptions of phenomena and the way in which he collected and analysed the relevant information. This was achieved through ongoing reflection upon his personal impressions and feelings, which were recorded in personal memos and in regular discussions with his research supervisors.

It was decided from the outset that the researcher would introduce himself to the staff as both a nurse and an investigator, but one who would not undertake any nursing activities during the observation period. He would consequently be regarded as an outsider or 'professional stranger', set apart from the duties of the groups being observed (Agar, 1996). However, this did not mean that he had no influence on the setting or participants. To be specific, as mentioned earlier (section 5.10), the researcher collected data from two respondent hospitals (the Case Studies), employing interviews, document reviews and observation. Information from each source was cross-checked for accuracy. That is, the data provided by the participants was triangulated against the data gathered in document reviews and observations. This permitted the researcher to ensure that data was not lost. Each method of gathering evidence confirmed existing data or delivered further information that was missing or inadequate after using another data collection method. This meant linking and crosschecking the consistency of information derived using more than one data-gathering approach.

However, the use of NPT to structure the analysis delivered an interesting dimension and enabled the researcher to look at the data from a different viewpoint. That said, it took him a considerable amount of time to familiarise himself with the constructs and components of NPT and then to code the data. It was in fact a challenge to code some of the data extracts that corresponded to more than one construct. However, the researcher decided that it was more important to emphasise issues than to construct their codes. NPT facilitated a thorough interrogation of the data and the researcher felt that he was completely immersed in the interview transcripts. It also permitted him to see the data through the 'lens' of implementation; an exercise that he found extremely valuable for identifying the potential challenges facing future implementation, and for facilitating the design of an online educational intervention. Moreover, during the current study, the researcher kept a meticulous audit trail of the data collection, coding and analysis, thus ensuring that the research was transparent, consistent and reproducible.

In the present researcher's opinion, the overall outcomes of this PhD were enriched by the adoption of a constructivist method, as well as through the application of NPT to the interpretation of the findings, and by conducting interviews, documentary review, and

observations. This would not have been attained by simply employing one method of investigation alone.

7.1.5 Personal Reflection

One of the main challenges for the researcher was his position as an international student, studying in a country where the main language of communication was not his mother tongue – this was a pivotal factor. The journey began with an English language course in the United Kingdom, which was a major challenge. Nevertheless, as he finished his course and Master's degree and transitioned to a PhD, the prospect became less daunting, as his command of the English language improved. He was therefore better placed to understand the research process in his second language. Therefore, by the time he enrolled on the PhD programme, he was more confident about being able embark successfully on and complete his PhD. Another major challenge was having to spend time abroad, far away from family and friends, which was uncomfortable at times.

Conversely, there were noteworthy positive experiences, which caused the researcher to grow as an individual. For example, he had the opportunity to further develop his presentation skills, which took the form of presenting his work as a doctoral researcher to peers and doctoral committees. This was an instructive and invaluable experience for all concerned.

The study process itself was very useful, because, as an administrator employed in the health sector, his attention or exposure to research had been limited. However, the PhD journey provided him with a new and more advanced skillset for research practice, which included the completion and submission of reports. As a result, he now considers himself to be both a researcher and practitioner, with extensive knowledge of the health sector in Jordan. Thus, his knowledge and understanding of TQM implementation is well-established, and from a practical and academic perspective, his career prospects are now diverse enough to allow him to change direction. On returning to Jordan, he will consequently put this new knowledge and experience into practice, ideally as a university faculty member; employing his knowledge to contribute to health service management programmes as a lecturer. Equally, he may collaborate as a consultant with government departments, thereby taking his experience forward by assisting Jordanian and other Arab hospitals in their implementation of effective training and awareness programmes, in order to ease the transitional periods of TQM implementation. Based on this current study and its results, he is confident that the hospitals studied, as well as any others that might apply the findings, will benefit.

During his PhD, the researcher had the opportunity to attend a number of taught courses, which helped him develop his academic skills. These skills were necessary for enabling

him to develop as a researcher. The courses consisted of blocks of teaching on subjects that included research philosophies, qualitative and quantitative research methods, and personal and professional development. They were useful and relevant in a much broader sphere than his immediate subject area. Through other training sessions, he also became competent in using NVivo software, the Project Manager program, Endnote tools and the conducting of systematic reviews, amongst other tasks.

What the researcher have been learnt during this experience (PhD) is how many times young researchers have felt let down by their institutions during their fieldwork, made avoidable mistakes, and generally been ill prepared for the fieldwork experience. Although the researcher was lucky enough to have a supportive background both personally and through his supervisors, he still found the experience challenging. For those with less than supportive situations, the combination of factors can be extremely limiting. Fieldwork is tiring. You spend a lot of time conducting meetings to explain the research and encourage people to participate, waiting on replies to phone calls and emails, and conducting interviews, but its worth at the end.

Finally, once the researcher had finalised all drafts of the thesis chapters and combined them in a single document, he began to feel that the journey was nearly at an end. He had a strong sense of satisfaction and achievement for having been able to accomplish this so early in his career. Despite some inevitably challenging moments, he had persisted in moving towards his goal and never for one moment regretted the decision to undertake this project. Ultimately, it could be said that each part and phase of this study resulted in a set of challenging experiences and numerous valuable lessons, which have collectively helped the researcher develop both personally and academically.

7.2 Chapter Summary

In this chapter, the barriers to and facilitators of TQM implementation in hospitals, which emerged from the research findings, have been discussed in the context of the culture and environment of Jordanian hospitals, specifically private Hospital A and public Hospital B. The barriers and facilitators affecting the implementation of TQM practices in the two Case Study Hospitals have been discussed in detail. From the synthesis of the review of the literature and the findings of the empirical study into the barriers and facilitators affecting the implementation of TQM, the investigator extracted barriers to and facilitators unique to Jordanian hospitals and categorised the findings as mentioned in Section 7.1.3

In the next chapter, the researcher will summarise the content of the current thesis, evaluate the degree to which the aims and objectives of this study have been achieved, and make operational and general recommendations for further work.

Chapter 8 Conclusions and Recommendations

8.1 Introduction

This chapter draws conclusions from the key points derived from the thesis as a whole, following the discussion of the study findings. It also evaluates how well the study's aims and objectives have been achieved, and the contribution made to existing knowledge in this area. In addition, it comments on the originality of this research, and its practical implications for sustaining TQM implementation. Meanwhile, it specifies the strengths and limitations of this study, before making recommendations for future research.

The current study investigated TQM implementation, with particular reference to TQM in hospitals in Jordan. Its key aim was to explore the barriers and facilitators of TQM, thus gaining a better understanding of TQM practices in the Jordanian healthcare sector. The results were derived from the perspectives and experience of staff, including managers, nurse and doctors at two selected Jordanian hospitals. The research methodology employed was based on constructivist philosophy, with qualitative data being gathered in a case study research design.

The first phase of the data collection involved secondary data, in a review of the relevant literature, so that TQM implementation in general could be comprehended, as well as the issues surrounding change management. The second phase consisted of gathering primary data through in-depth interviews, conducted face-to-face at the two Case Study Hospitals. These were supported and complemented by reviewing documents and carrying out non-participant observation as a means of data triangulation. The data were then analysed and discussed to explore and interpret the interview responses and their implications. The purpose of this process was to examine, recognise and understand in greater depth, the barriers and facilitators of TQM implementation in Jordanian hospitals.

8.2 Meeting the Study Aims and Objectives and Answering the Research Question

The current study began in October 2016, when there was still a dearth of literature on the barriers and facilitators affecting the successful implementation of TQM practices in hospitals; particularly in the Middle East and the Arabic context – therefore, in countries with a similar working environment to hospitals in Jordan (see Table 2.1). Thus, the key aim of the current study was to explore the barriers and facilitators of TQM, gaining a deeper understanding of the implementation of TQM practices in the Jordanian healthcare sector. Moreover, this was specifically from the perspective and experience of the Hospital

staff, namely managers, nurses and doctors. To achieve this aim, the following research question were formulated, and current theories and practices reviewed:

1. What are the barriers and facilitators associated with implementing total quality management (TQM) practices in Jordanian hospitals, from the perspective of nurses, managers and doctors'?

In conclusion, based on a discussion of the study results, the above research question were answered, and the study objectives achieved as follows:

- The barriers and facilitators of TQM implementation in Jordanian hospitals were identified, scrutinised and analysed. Twelve broad themes subsequently emerged (see Table 6.4). With respect to the barriers to TQM implementation, these consisted of the high cost of TQM; a lack of staff motivation, and low wages and incentive; staff shortages and high turnover; resistance from doctors; staff resistance to change; the delegation of authority, responsibility and accountability, and time. Meanwhile, concerning the facilitators of TQM, training and awareness; commitment and support from top management; communication; teamwork; patient involvement and engagement, and the recruitment of qualified and efficient hospital managers were cited.
- The barriers and facilitators that influence TQM implementation in Jordanian hospitals were categorised into two key categories: individual and organisational.
- Recommendations for sustaining the application of TQM in the context of Jordan have been made. These are based on the results of the interviews with the managers, nurses and doctors selected from Case Study Hospitals A and B and derived from the interview responses, synthesised with the relevant literature.

The fulfilment of the research objectives and responses to the research question resulted in the aim of this study being met; namely to explore the barriers and facilitators of TQM implementation and thereby gain a better understanding of the implementation of TQM practices in the Jordanian healthcare sector. This was specifically deduced from the perspectives and experiences of staff, including managers, nurses and doctors at the selected Case Study Hospitals.

Earlier reflection on the outcomes of this study, in light of the research aim, objectives, and questions, as set out at the beginning of the study's exploratory phase (see Chapter 1) indicated that this study had fulfilled its stated purpose.

8.3 Contribution to Knowledge and Originality of the Research

This study was initiated in response to identified gaps in the literature on TQM implementation in healthcare. Furthermore, it sought to act upon a number of recommendations for further work in the area of barriers and facilitators of TQM implementation, both generally and specifically in the healthcare context, as well as to identify bespoke methodologies for investigating these issues, and finally, to conduct empirical research involving respondents who were actively engaged in TQM implementation.

The defined aim of this study was to explore the barriers and facilitators of TQM implementation in Jordanian hospitals by gathering insights from staff employed as managers, nurses and doctors. This is the first instance of such research in the Middle East in general and more specifically, in Jordan. Indeed, it is apparent from the Literature Review in this thesis that very little has been written on the implementation of TQM standards in said context, although there is a body of literature on the impact of implementing TQM in other types of organisation. Furthermore, to date, despite numerous Jordanian hospitals starting to adopt TQM principles over the past two decades, the literature on TQM practices is still limited in this area, as is generally the case in the developing world, with regard to TQM implementation in healthcare (Al-Shdaifat, 2015; Al-Damen, 2017). This was especially true at the time of starting this study, which further motivated the present researcher to explore the barriers and facilitators of TQM implementation in Jordanian hospitals (A`aqoula et al, 2016; Al-Shdaifat, 2015).

Empirically, the significance of TQM in practice and the requirement to develop knowledge for the benefit of hospitals in low income countries (developing countries) points to the need to expand the existing knowledge of TQM literature in the developing world as a meaningful contribution. It should be noted that empirical work in this specific area is limited, whereby the present study introduces novelty into a field that is narrow at present (see Chapter 7). In fact, this is the first study of its kind in the Jordanian healthcare industry. As such, it has attempted to bridge the knowledge gap in the Arab literature in general and particularly in Jordan, given the common cultural and environmental components. These barriers and facilitators of TQM implementation are illustrated in Table 6.10, exclusively in relation to the healthcare context. What may be noted is that they include resistance from doctors, the recruitment of qualified and efficient hospital managers, and staff shortages and turnover.

In a discussion of the results of this study, it was concluded that although the two Case Study Hospitals have attained international accreditation; maintaining their performance and continuing to meet TQM standards after receiving accreditation has not been

addressed effectively in their daily activities. Furthermore, the current study touches upon the mindset and activities relating to TQM implementation in hospitals, thereby making the following contributions:

- This study is not only considered as the first of its kind in Jordan but is probably unique in the Arab world in general, as it centres upon the barriers and facilitators of TQM implementation in the Jordanian healthcare sector. Jordan is used as a lens through which to investigate and explore this phenomenon; bringing together a wider body of knowledge in relation to implementing TQM in hospitals in the Middle Eastern region. However, a review of the literature in this area identified research gaps and the necessity for further empirical study. Thus, the present study has integrated and extended previous studies carried out on this general topic; particularly in response to recommendations made by Mohammed (2005), Al-Haj (2006), Braithwaite et al. (2010) and Hinchcliff et al. (2013), who made the first inroads into these research environments; subsequently highlighting the need for more work in the area of TQM implementation in developing and Middle Eastern countries. Meanwhile, this current study has brought to light several points that have never before been explored in the literature.
- This study has identified and explored some of the key barriers and facilitators affecting TQM implementation in healthcare sector (two selected Case Study Hospitals).
- A case study research design was utilised in this research, thus promoting an in-depth comprehension of TQM implementation in hospitals. Indeed, it may be deemed to be the first of its kind to employ this method and to offer a rich description of TQM implementation in the context. To the researcher`s knowledge, it is the first time that the topic of TQM has been examined with such scope, whether worldwide, in the Middle East, or in Jordan.
- In particular, the current study provides in-depth knowledge of the benefits of TQM implementation for Jordanian hospitals.
- The current study adds knowledge to the area of TQM; specifically, in the context of Jordan, with implications for the developing world, thereby contributing original research in this area.
- The current study makes an academic contribution in response to the shortage of literature on this topic, bridging the knowledge gap in relation to Jordanian hospitals.
- The current study will assist students and investigators in academia in Middle East and Jordan to improve their knowledge of TQM and will inspire others to repeat this study in other private and public hospitals, as well as other industry sectors; for instance, banking, agriculture and education.

- An additional contribution stems from the data gathered in the Case Studies, using a qualitative approach. These were selected to explore every aspect of the topic in the corresponding context, such as the participants' experiences, opinions, and knowledge. Consistent with social constructivism, semi-structured interviews comprised the main data collection technique, due to their flexibility. These were supported by data collected through document review and observation. The researcher then applied a thematic analysis framework to analyse the collected data. Normalisation Process Theory (NPT) was subsequently used as a map to explain and interpret the study findings. As a result, the researcher made a significant contribution to his own personal development via the qualitative approach adopted, thematic analysis framework applied, and integration of NPT. This research experience was not evident in any of the previous literature reviewed for this study; thereby indicating an addition to the body of knowledge on management practices in the field of TQM, particularly as the associated scholarship is limited.
- In addition, Chapter 2 and Chapter 3 contain considerable information on existing TQM studies, and even though these data are secondary, the researcher deems them to be significant for enhancing the knowledge and awareness of TQM researchers and practitioners.

8.4 Practical Implications of Sustaining TQM Implementation

The current study has contributed to practice by producing results that can be utilised in future to:

- Enable Jordanian hospitals to better understand the importance of TQM practices and overcome the barriers to TQM implementation.
- Help policy-makers and managers gain a practical understanding of the barriers and facilitators that are likely to affect TQM implementation. A thorough understanding of these barriers and facilitators will increase the probability of TQM success by enabling the barriers to be anticipated and avoided during TQM implementation. Therefore, the study findings could provide direction and guidance in developing strategies for an effective and efficient TQM transformation. Hospital managers will consequently be better placed to formulate effective TQM strategies, thus circumventing some of the barriers explored in this study and leading to successful TQM implementation.
- Encourage Jordanian hospitals to initiate continuous training programmes for all staff, with sufficient funds allocated to sustain such programmes. Training funds should be adequate for enabling each hospital to provide training to both newly recruited and existing employees, with a focus on enhancing quality, so that all staff members are able to support quality improvement hospital-wide.
- Promote the recruitment by hospital management of highly trained healthcare management specialists to run hospitals and/or support current managers in their healthcare management training. Such specialists would be in an ideal position to plan for the future, as well as helping their hospitals to achieve successful TQM implementation and meet their objectives.
- Suggest the rewarding of talented and disciplined employees at the Case Study (and other) Hospitals, through satisfactory salaries and other benefits. However, rewards should not be limited to managers, but extended to all staff. As Jordan is not a wealthy country, hospitals might be unable to offer substantial monetary rewards and so the current researcher recommends that the managers of these hospitals consider introducing non-monetary rewards and benefits, such as health insurance, day-care options for parents, extra vacation days, or gym membership, in order to enhance staff satisfaction and ensure continuity of talent, knowledge, skills and expertise.
- Encourage the management of Case Study Hospitals A and B (as well as in other hospitals in Jordan) to provide access to continuous training programmes, extended to all staff, with adequate funds being allocated to sustain the implementation of such programmes (TQM).

- Foster teamwork in Case Study Hospital A (and elsewhere). This is particularly dependent on commitment and support from the top management, who have the potential to influence the views of participating doctors, which is vital for the success of TQM implementation.

8.5 Strength and Limitations of the Current Study

As emphasised in the results of the scoping review, there are limited studies on the facilitators and barriers of TQM implementation in hospitals and this is especially marked in the context of Jordan. Moreover, no existing study has used a qualitative methodology to explore these barriers and facilitators in the healthcare context. The current study findings therefore constitute original knowledge and promote an understanding of the process of TQM implementation.

As mentioned previously, to the researcher`s knowledge, this is the first time that this topic has been studied by shifting the research interest from TQM worldwide, to the narrower context of the Middle East. Some Arab and Middle Eastern countries resemble Jordan, but this study is still somewhat limited in its generalisability. Every effort was made to gather high quality data, but all studies are limited by the constraints imposed by the researcher (Yin, 2015). In the present case, it was not possible to control for all the factors that were likely to affect the quality of the study, as some were associated with the Case Study Hospitals themselves, and others arose from the research process. As a consequence, the following strengths and limitations of the current study should be acknowledged:

8.5.1 The study`s strengths

- The methodology and research techniques selected for this study were the result of generating original and novel data, thus making a meaningful contribution to existing knowledge.
- A rigorous method was applied to all aspects of these qualitative Case Studies and trustworthiness was evident throughout, as discussed in depth in Chapter 5 and illustrated in Table 4.4, based on (Creswell and Creswell, 2017) frameworks.
- One strength of this current study was the application of NPT to develop the interview guide. This ensured that the context of primary care monitoring and management was explored in such a way as to provide a good understanding of the local factors that were likely to affect the implementation of the nasal balloon method
- To satisfy the requirements for the study's validity and to improve its generalisability and reliability, the researcher employed more than one source of evidence when gathering the data: interviews, document review, and observation. These sources

enabled the data to be triangulated, thus reducing case study bias. The triangulation of data sources and involvement of more than one hospital site, heterogeneous participants, and analysts, ensured an in-depth understanding, as well as rich, robust, comprehensive, and well-developed data (Stanfield, 2016).

- NPT was considered to be of benefit by the researcher in providing an explanatory theoretical framework for exploring the factors that inhibit (barriers) and promote (facilitators) TQM implementation, as well as fostering an understanding of the complexities involved and work required to implement TQM in Jordanian hospitals.
- In 2016, at the start of this current study, there was a serious shortage of existing literature on the barriers and facilitators of TQM implementation in healthcare, particularly regarding empirical research into hospitals in the Middle East and other countries with a similar working environment to Jordan. Most of the available studies concerned the implementation of TQM in industrial, service sector and other quality systems, like accreditation. The present researcher consequently examined the literature on implementing TQM industrial, service sector and quality systems such as JCI, since TQM standards bear some resemblance to this, as discussed in Chapter 2 and Chapter 3. The JCI uses the same principles as TQM: customer orientation, continuous improvement, and human resource management. Sharif (2005) adopted a similar approach in his research study.
- As the current researcher is an employee of Case Study Hospital A, there was the potential for bias on both sides during the face-to-face interviews. The researcher pre-empted this by piloting the interview questions, which led to the inclusion of a neutral introduction while conducting the interviews. In addition, the researcher used a standard set of questions in all the interviews. However, the most important tool for reducing bias was the triangulation of the interview findings with data from the document review and observations. Thus, the potential for bias was reduced.

8.5.2 Limitations of the study

- This is a qualitative case study, centred on the barriers and facilitators of TQM in two hospitals in Jordan: one in the private and one in the private sector. Although the results were deemed to be pertinent to barriers and facilitators of successful TQM implementation in the Hospitals where the research was performed, the results might not necessarily apply directly to other hospitals in the Middle East, or to those of a comparable size elsewhere. However, this limitation does not mean that the results are irrelevant to other hospitals in Jordan or overseas; they will primarily guide Jordanian hospital managers towards greater awareness of the barriers to TQM implementation, so that they can develop plans to address them, should they arise.

They will also inform strategies for intervention to reduce the influence of these barriers.

- The timeframe of this Ph.D. did not serve the planned observation method, and there were two main reasons for this: first, there were some difficulties regarding data collection, with the fieldwork experience in Jordan presenting a challenge, due to the timeframe involved (three months). This was connected with the multiple methods involved in the qualitative approach, which was overwhelming and demanded a great deal of work. Secondly, this approach is unfamiliar in Jordan, and so the researcher was hesitant to pursue the method for longer than seven weeks, for fear of the participants feeling self-conscious and behaving differently as a result.
- Other difficulties regarding the data collection and fieldwork in Jordan also stemmed from the timeframe (three months), whereby the process was interrupted by the Christmas vacation, when the working environment slowed down, because many of the staff were away. Therefore, even though the interviews were meant to run throughout December, they took place between 7th December and 15th December, 2017, before stopping for three weeks from 23rd December, and the fieldwork did not resume until 5th January. It is also important to note the limited resources available for this study (time, manpower and fund), which made it difficult to collect data over a longer period.

8.6 Suggestions for Further Study

A number of opportunities for further study became apparent on completion of this research, in that it was not found to be totally conclusive. This means that it gave rise to several secondary issues, thereby raising a number of unanswered questions on the more general barriers and facilitators of TQM implementation in the two Case Study Hospitals. Further studies are therefore needed to extend the current study and help enhance Jordan's TQM programmes in the healthcare context. Consequently, in conclusion to the current study, several recommendations for further work are offered below, with the implication that academics, professionals, and private and public sector authorities, not only in Jordan, but also worldwide, should consider meeting these research needs:

- Because there is limited knowledge on the barriers and facilitators of TQM implementation in Jordanian hospitals, the present study used a broad case study approach, and so attention could be given in future to the methodology adopted to investigate this research area. Moreover, the present researcher used a qualitative case study technique, whereas a quantitative approach could confirm and support these results and build on the current study through further work on TQM implementation in Jordanian hospitals.

- Additional research is necessary, with regard to the critical requirements of implementing TQM in healthcare organisations and other sectors in Jordan.
- The replication of this current study in other sectors could yield insights into the barriers and facilitators that are specific to the healthcare sector and those that are culturally conditioned.
- Further research is recommended, given that the current study has identified certain barriers affecting the implementation of TQM in practice in Jordanian hospitals. It would consequently be very interesting and beneficial to investigate this topic further; for example, the ways in which these issues could be managed and overcome, thereby developing an appropriate framework based on the results of this thesis.
- The current study has raised unanswered questions relating to the barriers and facilitators of TQM implementation in Jordanian hospitals and so further research is required to both extend this study and help enhance the implementation of TQM practice in this context. Theoretically, the importance and significance of this investigation is clear, since the barriers and facilitators of TQM implementation in Jordanian hospitals have been identified in this thesis (Chapter 6 and the summary in Table 6.10).
- Further research is necessary for exploring how the barriers affecting TQM implementation in Jordan's private and public hospitals may be overcome. Due to the time constraints on this Ph.D., the researcher was unable to develop such a framework and test it in the study context.
- Future studies are likewise recommended as the key to exploring the role of doctors across a diverse selection of hospitals in Jordan, in order to discover why they appear to lack commitment to TQM implementation, but rather demonstrate resistance. This work would be important, given that doctors' support for TQM implementation is crucial to its success.
- Finally, further research is needed to study the phenomenon of TQM implementation, from the perspective of the certifying bodies.

8.7 Conclusion

The current study utilised qualitative approach to explore the implementation of TQM programme in Jordanian hospitals, from multiple levels of participants' perspectives including managers, nurses and doctors. It has been using face to face interview a main data collection method within two hospitals in Jordan. Several other methods such as documentary review, and observation are used in order to attain triangulation and to deepen the understanding of the barriers and facilitators identified. Integrating the results from those methods highlighted a range of conclusions presented in this chapter, related to TQM implementation process. Built upon those conclusions a number of implications for the managers and policy makers were offered. It has also listed the limitations inherent in the current design, and also served to highlight the contribution of the current study and the possible opportunities for future investigation.

References

- A'AQOULAH, A., KUYINI, A. B. & AJLOUNI, M. T. 2016. Addressing Quality Management System Obstacles in Jordanian Hospitals. *International Business Research*, 9, 34.
- A'AQOULAH, A., KUYINI, A. B., AJLOUNI, M. T., SAIF, N. & AL-RAOUSH, A. 2016. Staff Perceptions of Obstacles to Quality Management Systems in Low-and High-Performing Hospitals in Jordan. *International Journal of Business and Management*, 11, 232.
- ABANUMY, A. N. & ALSHITRI, K. I. 2015. TQM practices in Saudi Arabia: Antecedents and consequences of organizational commitment among R&D center employees. *International Information Institute (Tokyo). Information*, 18, 463.
- ABDULLAH HOKOMA, R., KHURSHID KHAN, M. & HUSSAIN, K. 2010. The present status of quality and manufacturing management techniques and philosophies within the Libyan iron and steel industry. *The TQM journal*, 22, 209-221.
- ABELE, S., BLESS, H. & EHRHART, K.-M. 2004. Social information processing in strategic decision-making: why timing matters. *Organizational Behavior and Human Decision Processes*, 93, 28-46.
- ABU-AYSHEH, W. S. 2014. *MANAGEMENT PERCEPTION TOWARDS APPLYING QUALITY MANAGEMENT IN JORDANIAN PRIVATE HOSPITALS*. University of Petra.
- AIZENMAN, J., CHINN, M. D. & ITO, H. 2016. Monetary policy spillovers and the trilemma in the new normal: Periphery country sensitivity to core country conditions. *Journal of International Money and Finance*, 68, 298-330.
- AJLOUNI, M. 2010. Human Resource for Health, Country Profile-Jordan, WHO, EMRO, 2011.
- AL-ALI, A. M. Developing a total quality management framework for healthcare organizations. Proceedings of the 2014 International Conference on Industrial Engineering and Operations Management, 2014.
- AL-BUSAIDI, Z. Q. 2008. Qualitative research and its uses in health care. *Sultan Qaboos University Medical Journal*, 8, 11-19.
- AL-DAMEN, R. A. 2017. The impact of Total Quality Management on organizational performance Case of Jordan Oil Petroleum Company. *International Journal of Business and Social Science*, 8, 192-202.
- AL-REFAIE, A. & HANAYNEH, B. 2014. Influences of TPM, TQM, Six Sigma practices on firms performance in Jordan. *International Journal of Productivity and Quality Management*, 13, 219-234.
- AL-SHDAIFAT, B., ALSHARAFAT, W. & EL-BASHIR, M. 2015. Applying Hopfield Artificial Network and Simulating Annealing for Cloud Intrusion Detection. *Journal of Information Security Research*, 6, 49-53.
- AL-SHDAIFAT, E. A. 2015. Implementation of total quality management in hospitals. *Journal of Taibah University Medical Sciences*, 10, 461-466.
- AL-ZU'BI, H. A. & JUDEH, M. 2011. Measuring the Implementation of Total Quality Management: Ibn Al-Haytham Hospital Case Study. *International Journal of Business and Management*, 6, 114.
- AL ATTAL, Z. Z. 2009. *Factors affecting the implementation of joint commission international standards in United Arab Emirates hospitals*. University of Salford.
- AL GHAMDI, A. A., AZIZ, F. S. B. A., YUSOFF, R. Z. & BIN MUSTAFA, M. 2016. The Moderating Role of knowledge management on the relationship between employees' commitment and total quality management: A Study on the public healthcare sector in Saudi Arabia. *International Review of Management and Marketing*, 6, 790-797.
- AL TASHEH, G. H. 2013. obstacles to the application of total quality management (TQM) in higher education institutions in the state of Kuwait. *European Scientific Journal, ESJ*, 9.
- ALADWAN, S. A. & FORRESTER, P. 2016. The leadership criterion: challenges in pursuing excellence in the Jordanian public sector. *The TQM Journal*, 28, 295-316.

- ALARADI, L. K. 2017. *Assessing the impact of healthcare accreditation from the perspective of professionals' in primary healthcare centres: A mixed methods case study from Kuwait*. University of Glasgow.
- ALASMARI, H. A. M. & DOUGLAS, C. 2012. Job satisfaction and intention to leave among critical care nurses in Saudi Arabia. *Middle East Journal of Nursing*, 6, 3-12.
- ALBEJAIDI, F. M. 2010. Healthcare system in Saudi Arabia: An analysis of structure, total quality management and future challenges. *Journal of Alternative Perspectives in the Social Sciences*, 2, 794-818.
- ALGOSO, M., PETERS, K., RAMJAN, L. & EAST, L. 2016. Exploring undergraduate nursing students' perceptions of working in aged care settings: A review of the literature. *Nurse Education Today*, 36, 275-280.
- ALHWAIRINI, A. & FOLEY, A. 2012. Working towards total quality management in Saudi Arabia. *Education, Business and Society: Contemporary Middle Eastern Issues*, 5, 187-199.
- ALMUEDO-PAZ, A., NÚÑEZ-GARCÍA, D., REYES-ALCÁZAR, V. & TORRES-OLIVERA, A. 2012. The ACSA accreditation model: Self-assessment as a quality improvement tool. *Quality assurance and management*. InTech.
- ALOLAYYAN, M. N. F., MOHD ALI, K. A., IDRIS, F. & IBREHEM, A. S. 2011. Advance mathematical model to study and analyse the effects of total quality management (TQM) and operational flexibility on hospital performance. *Total Quality Management & Business Excellence*, 22, 1371-1393.
- ALSUGHAYIR, A. 2014. Barriers to TQM Implementation within a Private Medical Services Organizations in Saudi Arabia. *International Journal of Business Administration*, 5, 117.
- AMARATUNGA, D., BALDRY, D., SARSHAR, M. & NEWTON, R. 2002. Quantitative and qualitative research in the built environment: application of "mixed" research approach. *Work study*, 51, 17-31.
- AMEMORI, M., MICHIE, S., KORHONEN, T., MURTOMAA, H. & KINNUNEN, T. H. 2011. Assessing implementation difficulties in tobacco use prevention and cessation counselling among dental providers. *Implementation Science*, 6, 50.
- AMUI, L. B. L., JABBOUR, C. J. C., DE SOUSA JABBOUR, A. B. L. & KANNAN, D. 2017. Sustainability as a dynamic organizational capability: a systematic review and a future agenda toward a sustainable transition. *Journal of Cleaner Production*, 142, 308-322.
- ANDERSON, S., ALLEN, P., PECKHAM, S. & GOODWIN, N. 2008. Asking the right questions: scoping studies in the commissioning of research on the organisation and delivery of health services. *Health research policy and systems*, 6, 7.
- ANIL, A. P. & SATISH, K. 2016. Investigating the relationship between TQM practices and firm's performance: A conceptual framework for Indian organizations. *Procedia Technology*, 24, 554-561.
- ANTILLÓN, M., WARREN, J. L., CRAWFORD, F. W., WEINBERGER, D. M., KÜRÜM, E., PAK, G. D., MARKS, F. & PITZER, V. E. 2017. The burden of typhoid fever in low- and middle-income countries: A meta-regression approach. *PLoS neglected tropical diseases*, 11, e0005376.
- ANTONY, J. & DESAI, D. A. 2009. Assessing the status of Six Sigma implementation in the Indian industry: results from an exploratory empirical study. *Management Research News*, 32, 413-423.
- ARAR, R. M. 2016. How political migrants' networks differ from those of economic migrants: 'strategic anonymity' among Iraqi refugees in Jordan. *Journal of Ethnic and Migration Studies*, 42, 519-535.
- ARKSEY, H. & O'MALLEY, L. 2005. Scoping studies: towards a methodological framework. *International journal of social research methodology*, 8, 19-32.
- ARMSTRONG, A. & FOLEY, P. 2003. Foundations for a learning organization: organization learning mechanisms. *The Learning Organization*, 10, 74-82.
- ASANTE, A., PRICE, J., HAYEN, A., JAN, S. & WISEMAN, V. 2016. Equity in health care financing in low-and middle-income countries: a systematic review of evidence

- from studies using benefit and financing incidence analyses. *PLoS one*, 11, e0152866.
- ASHRAFI, R. & BASHIR, H. A. 2011. Implementation of quality management in organisations operating in the Sultanate of Oman: ISO 9001: 2000 vs. non-ISO 9001: 2000 certified organisations. *International Journal of Productivity and Quality Management*, 7, 183-201.
- ASSARLIND, M. & GREMYR, I. 2014. Critical factors for quality management initiatives in small-and medium-sized enterprises. *Total Quality Management & Business Excellence*, 25, 397-411.
- ATTRIDE-STIRLING, J. 2001. Thematic networks: an analytic tool for qualitative research. *Qualitative research*, 1, 385-405.
- AVSIAN-KRETCHMER, O., GUETA-DAHAN, Y., LEV-YADUN, S., GOLLOP, R. & BEN-HAYYIM, G. 2004. The salt-stress signal transduction pathway that activates the gpx1 promoter is mediated by intracellular H₂O₂, different from the pathway induced by extracellular H₂O₂. *Plant physiology*, 135, 1685-1696.
- AWUOR, E. O. & KINUTHIA, D. M. 2013. Total Quality Management Practices in Selected Private Hospitals in Nairobi, Kenya.
- AYOOLA, E., AL-RASHED, R., AL-MOFLEH, I., AL-FALEH, F. & LAAJAM, M. 1996. Diagnostic yield of upper gastrointestinal endoscopy in relation to age and gender: a study of 10112 Saudi patients. *Hepato-gastroenterology*, 43, 409-415.
- BABATUNDE, O. & LOW, S. P. Cross-cultural management and TQM implementation through ISO 9001: Findings from Chinese firms in the Nigerian construction industry. Proceedings of the 19th International Conference on ISO and TQM, 2015. 7-9.
- BAKER, L. 2006. Observation: A complex research method. *Library trends*, 55, 171-189.
- BALSIGER, P. & LAMBELET, A. 2014. Participant observation. *Methodological practices in social movement research*, 144-172.
- BASU, A. & DUTTA, M. J. 2008. The relationship between health information seeking and community participation: The roles of health information orientation and efficacy. *Health communication*, 23, 70-79.
- BASU, R. Quality management tools and techniques in major infra-structure projects. Reliability, Infocom Technologies and Optimization (Trends and Future Directions)(ICRITO), 2017 6th International Conference on, 2017. IEEE, 114-126.
- BAUER, J., FALSHAW, R. & OAKLAND, J. S. 2005. Implementing business excellence. *Total Quality Management & Business Excellence*, 16, 543-553.
- BAXTER, P. & JACK, S. 2008. Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13, 544-559.
- BELL, E. & BRYMAN, A. 2007. The ethics of management research: an exploratory content analysis. *British Journal of Management*, 18, 63-77.
- BIRD, C. M. 2005. How I stopped dreading and learned to love transcription. *Qualitative inquiry*, 11, 226-248.
- BITSCH, V. 2005. Qualitative research: A grounded theory example and evaluation criteria. *Journal of Agribusiness*, 23, 75-91.
- BLAKEMAN, T., PROTHEROE, J., CHEW-GRAHAM, C., ROGERS, A. & KENNEDY, A. 2012. Understanding the management of early-stage chronic kidney disease in primary care: a qualitative study. *Br J Gen Pract*, 62, e233-e242.
- BLANCHE, M. T., BLANCHE, M. J. T., DURRHEIM, K. & PAINTER, D. 2006. *Research in practice: Applied methods for the social sciences*, Juta and Company Ltd.
- BLAXTER, M. 1996. Criteria for the evaluation of qualitative research papers. *Medical Sociology News*, 22, 68-71.
- BONVENTURE, J. 2014. Top Management Commitment towards Implementation of Total Quality Management (TQM) in Construction Companies in Nakuru County-Kenya. *International Journal of Economics, Finance and Management Sciences*, 2 (6), 332-338.
- BORMANN, N.-C., CEDERMAN, L.-E. & VOGT, M. 2017. Language, religion, and ethnic civil war. *Journal of Conflict Resolution*, 61, 744-771.

- BOWLING, A. 2014. *Research methods in health: investigating health and health services*, McGraw-Hill Education (UK).
- BOYATZIS, R. E. 1998. *Transforming qualitative information: Thematic analysis and code development*, sage.
- BRAUN, V. & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3, 77-101.
- BRINKMANN, S. & KVALE, S. 2005. Confronting the ethics of qualitative research. *Journal of constructivist psychology*, 18, 157-181.
- BRYMAN, A. 2016. *Social research methods*, Oxford university press.
- BURNS, N. & GROVE, S. K. 1993. The practice of nursing research. *Conduct, critique & utilization*, 4.
- BUSH, S. S. & GAO, E. 2017. Small Tribes, Big Gains: The strategic uses of gender quotas in the middle east. *Comparative Politics*, 49, 149-167.
- CAPUTO, A., MEHTAP, S., PELLEGRINI, M. M. & AL-REFAI, R. 2016. Supporting opportunities for female entrepreneurs in Jordan. *International Journal of Entrepreneurship and Small Business*, 27, 384-409.
- CARSON, D., GILMORE, A., PERRY, C. & GRONHAUG, K. 2001. *Qualitative marketing research*, Sage.
- CAVANA, R. Y., DELAHAYE, B. L. & SEKARAN, U. 2001. *Applied business research: Qualitative and quantitative methods*, John Wiley & Sons Australia.
- CHARMAZ, K. & BELGRAVE, L. L. 2007. Grounded theory. *The Blackwell encyclopedia of sociology*.
- CHOLASUKE, C., BHARDWA, R. & ANTONY, J. 2004. The status of maintenance management in UK manufacturing organisations: results from a pilot survey. *Journal of Quality in Maintenance Engineering*, 10, 5-15.
- CHUGANI, N., KUMAR, V., GARZA-REYES, J. A., ROCHA-LONA, L. & UPADHYAY, A. 2017. Investigating the green impact of Lean, Six Sigma and Lean Six Sigma: A systematic literature review. *International Journal of Lean Six Sigma*, 8, 7-32.
- COHEN, L., MANION, L. & MORRISON, K. 2000. *Research Methods in Education*, 5th edn (Abingdon: RoutledgeFalmer).
- COLLIS, J. & HUSSEY, R. 2013. *Business research: A practical guide for undergraduate and postgraduate students*, Macmillan International Higher Education.
- CORBIN, J. & STRAUSS, A. 2008. Basics of qualitative research: Techniques and procedures for developing grounded theory.
- CRAIG, P., DIEPPE, P., MACINTYRE, S., MICHIE, S., NAZARETH, I. & PETTICREW, M. 2008. Developing and evaluating complex interventions: the new Medical Research Council guidance. *Bmj*, 337, a1655.
- CRESWELL, J. W. 2013. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications.
- CRESWELL, J. W. & CLARK, V. L. P. 2007. Designing and conducting mixed methods research.
- CRESWELL, J. W. & CRESWELL, J. D. 2017. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications.
- CRESWELL, J. W., HANSON, W. E., CLARK PLANO, V. L. & MORALES, A. 2007. Qualitative research designs: Selection and implementation. *The counseling psychologist*, 35, 236-264.
- CRESWELL, J. W. & MILLER, D. L. 2000. Determining validity in qualitative inquiry. *Theory into practice*, 39, 124-130.
- CRIDLAND, E. K., JONES, S. C., CAPUTI, P. & MAGEE, C. A. 2015. Qualitative research with families living with autism spectrum disorder: Recommendations for conducting semistructured interviews. *Journal of Intellectual and Developmental Disability*, 40, 78-91.
- CROTTY, M. 1998. *The foundations of social research: Meaning and perspective in the research process*, Sage.
- DAMSCHRODER, L. J., ARON, D. C., KEITH, R. E., KIRSH, S. R., ALEXANDER, J. A. & LOWERY, J. C. 2009. Fostering implementation of health services research

- findings into practice: a consolidated framework for advancing implementation science. *Implementation science*, 4, 50.
- DAS, A., KUMAR, V. & KUMAR, U. 2011. The role of leadership competencies for implementing TQM: An empirical study in Thai manufacturing industry. *International Journal of Quality & Reliability Management*, 28, 195-219.
- DAVIDOFF, F., DIXON-WOODS, M., LEVITON, L. & MICHIE, S. 2015. Demystifying theory and its use in improvement. *BMJ Qual Saf*, 24, 228-238.
- DAVIES, P., WALKER, A. E. & GRIMSHAW, J. M. 2010. A systematic review of the use of theory in the design of guideline dissemination and implementation strategies and interpretation of the results of rigorous evaluations. *Implementation Science*, 5, 14.
- DAVIS, K., DREY, N. & GOULD, D. 2009. What are scoping studies? A review of the nursing literature. *International journal of nursing studies*, 46, 1386-1400.
- DENZIN, N. K. & LINCOLN, Y. S. 2011. *The Sage handbook of qualitative research*, Sage.
- DEVICIENTI, F., GRINZA, E. & VANNONI, D. 2015. The impact of part-time work on firm total factor productivity: evidence from Italy.
- DHENSA-KAHLON, R. K. & COYLE-SHAPIRO, J. A. 2013. Anticipatory (in) justice and organizational change: understanding employee reactions to change.
- DICK, B. 2009. Action research literature 2006—2008: Themes and trends. *Action Research*, 7, 423-441.
- DICKENSON, R. P., CAMPBELL, D. R. & AZAROV, V. N. 2000. Quality management implementation in Russia: strategies for change. *International Journal of Quality & Reliability Management*, 17, 66-82.
- DIXON-WOODS, M. & MARTIN, G. P. 2016. Does quality improvement improve quality? *Future Hospital Journal*, 3, 191-194.
- DOUGLAS, N. F., HINCKLEY, J. J., HALEY, W. E., ANDEL, R., CHISOLM, T. H. & EDDINS, A. C. 2014. Perceptions of speech-language pathologists linked to evidence-based practice use in skilled nursing facilities. *American journal of speech-language pathology*, 23, 612-624.
- DZIEGIELEWSKA, K. M., KNOTT, G. W. & SAUNDERS, N. R. 2000. The nature and composition of the internal environment of the developing brain. *Cellular and molecular neurobiology*, 20, 41-56.
- ECCLES, M., GRIMSHAW, J., WALKER, A., JOHNSTON, M. & PITTS, N. 2005. Changing the behavior of healthcare professionals: the use of theory in promoting the uptake of research findings. *Journal of clinical epidemiology*, 58, 107-112.
- ECCLES, M. P., ARMSTRONG, D., BAKER, R., CLEARY, K., DAVIES, H., DAVIES, S., GLASZIOU, P., ILOTT, I., KINMONTH, A.-L. & LENG, G. 2009. An implementation research agenda. BioMed Central.
- EISENHARDT, K. M. 1991. Better stories and better constructs: The case for rigor and comparative logic. *Academy of Management review*, 16, 620-627.
- EL-JARDALI, F., HEMADEH, R., JAAFAR, M., SAGHERIAN, L., EL-SKAFF, R., MDEIHLY, R., JAMAL, D. & ATAYA, N. 2014. The impact of accreditation of primary healthcare centers: successes, challenges and policy implications as perceived by healthcare providers and directors in Lebanon. *BMC health services research*, 14, 86.
- EL-KATIRI, L. & FATTOUH, B. 2017. A brief political economy of energy subsidies in the Middle East and North Africa. *International Development Policy | Revue internationale de politique de développement*, 7.
- EL-TOHAMY, A. E.-M. A. & AL RAOUSH, A. T. 2015. The impact of applying total quality management principles on the overall hospital effectiveness: an empirical study on the HCAC accredited governmental hospitals in Jordan. *European Scientific Journal*, ESJ, 11.
- ELI, J. A. 2009. AN EXPLORATORY MIXED METHODS STUDY OF PROSPECTIVE MIDDLE GRADES TEACHERS' MATHEMATICAL CONNECTIONS WHILE COMPLETING INVESTIGATIVE TASKS IN GEOMETRY.
- ELLIS, R. 2010. Epilogue: A framework for investigating oral and written corrective feedback. *Studies in Second Language Acquisition*, 32, 335-349.

- ESKIN, M., POYRAZLI, S., JANGHORBANI, M., GIOVANNI CARTA, M., TRAN, U., MECHRI, A., HAMDAN, M., NAWAFLEH, H., SUN, J. & FLOOD, C. 2017. The Role of Religion on Suicidal Behavior, Attitudes and Psychological Distress in University Students: A Multinational Study. *Transcultural Psychiatry*.
- ETIKAN, I., MUSA, S. A. & ALKASSIM, R. S. 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5, 1-4.
- FERLIE, E. B. & SHORTELL, S. M. 2001. Improving the quality of health care in the United Kingdom and the United States: a framework for change. *The Milbank Quarterly*, 79, 281-315.
- FERNANDEZ, S. & MOLDOGAZIEV, T. 2011. Empowering public sector employees to improve performance: Does it work? *The American Review of Public Administration*, 41, 23-47.
- FIDDIAN-QASMIYEH, E. 2016. Representations of displacement from the Middle East and North Africa. *Public Culture*, 28, 457-473.
- FLICK, U. 2014. *An introduction to qualitative research*, Sage.
- FOTOPOULOS, C. B. & PSOMAS, E. L. 2009. The impact of "soft" and "hard" TQM elements on quality management results. *International Journal of Quality & Reliability Management*, 26, 150-163.
- FRANX, G., OUD, M., DE LANGE, J., WENSING, M. & GROU, R. 2012. Implementing a stepped-care approach in primary care: results of a qualitative study. *Implementation Science*, 7, 8.
- FUKUDA, R. 2018. *CEDAC: A tool for continuous systematic improvement*, Routledge.
- GALE, N. K., HEATH, G., CAMERON, E., RASHID, S. & REDWOOD, S. 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC medical research methodology*, 13, 117.
- GALLEAR, D., GHOBADIAN, A. & CHEN, W. 2012. Corporate responsibility, supply chain partnership and performance: An empirical examination. *International Journal of Production Economics*, 140, 83-91.
- GALYANI MOGHADDAM, G. & MOBALLEGHI, M. 2008. Total quality management in library and information sectors. *The electronic library*, 26, 912-922.
- GARDNER, J. W., LINDERMAN, K. W. & MCFADDEN, K. L. 2018. Managing Quality Crossroads in Healthcare: An Integrative Supply Chain Perspective. *Quality Management Journal*, 25, 2-17.
- GERGES, M., AUSTIN, S., MAYOUF, M., AHIKWO, O., JAEGER, M., SAAD, A. & GOHARY, T.-E. 2017. An investigation into the implementation of Building Information Modeling in the Middle East. *Journal of Information Technology in Construction (ITcon)*, 22, 1-15.
- GHERBAL, N., SHIBANI, A., SAIDANI, M. & SAGOO, A. Critical success factors of implementing Total Quality Management in Libyan organisations. International Conference on Industrial Engineering and Operations Management Istanbul, Turkey, 2012. 80-89.
- GOETSCH, D. L. & DAVIS, S. B. 2000. Quality management. *Introduction Total Quality Management for Production, Processing, and Service*.
- GOETSCH, D. L. & DAVIS, S. B. 2014. *Quality management for organizational excellence*, Pearson Upper Saddle River, NJ.
- GOLD, R. L. 1997. The ethnographic method in sociology. *Qualitative inquiry*, 3, 388-402.
- GOORAN, M. A. 2016. *The Implementation of Quality Management and the Role of Leadership in Iranian Hospitals*. University of East London.
- GRBICH, C. 1998. *Qualitative research in health: an introduction*, sage.
- GREEN, C. A., DUAN, N., GIBBONS, R. D., HOAGWOOD, K. E., PALINKAS, L. A. & WISDOM, J. P. 2015. Approaches to mixed methods dissemination and implementation research: methods, strengths, caveats, and opportunities. *Administration and Policy in Mental Health and Mental Health Services Research*, 42, 508-523.

- GROL, R. P., BOSCH, M. C., HULSCHER, M. E., ECCLES, M. P. & WENSING, M. 2007. Planning and studying improvement in patient care: the use of theoretical perspectives. *The Milbank Quarterly*, 85, 93-138.
- GUBRIUM, J. F. & HOLSTEIN, J. A. 1997. *The new language of qualitative method*, Oxford University Press on Demand.
- GUMMESSON, E. 2007. Access to reality: observations on observational methods. *Qualitative Market Research: An International Journal*, 10, 130-134.
- HABTOOR, N. 2016. Influence of human factors on organisational performance: Quality improvement practices as a mediator variable. *International Journal of Productivity and Performance Management*, 65, 460-484.
- HAKIM, C. 2012. *Research Design: Successful Designs for Social Economics Research*, Routledge.
- HAMEED, W. & ABBOTT, C. Critical review of the success factors of strategic alliances in the UK construction industry. 13th International Postgraduate Research Conference 2017: conference proceedings, 2017. Salford University, 15-26.
- HAMMERSLEY, M. & ATKINSON, P. 2007. *Ethnography: Principles in practice*, Routledge.
- HARRISON, F. & LOCK, D. 2017. *Advanced project management: a structured approach*, Routledge.
- HASHMI, S., GOPAUL, S., PRINSLEY, P. & SANSOM, J. 2004. Swallowed nasal pack: a rare but serious complication of the management of epistaxis. *The Journal of Laryngology & Otology*, 118, 372-373.
- HASSANAIN, M., ZAMAKHSHARY, M., FARHAT, G. & AL-BADR, A. 2017. Use of Lean methodology to improve operating room efficiency in hospitals across the Kingdom of Saudi Arabia. *The International journal of health planning and management*, 32, 133-146.
- HAZILAH ABD. MANAF, N. 2005. Quality management in Malaysian public health care. *International Journal of Health Care Quality Assurance*, 18, 204-216.
- HENDRIKS, V. M., BLANKEN, P., ADRIAANS, N. F. P. & HARTNOLL, R. 1992. *Snowball sampling: A pilot study on cocaine use*, IVO, Instituut voor Verslavingsonderzoek, Erasmus Universiteit Rotterdam.
- HESSE-BIBER, S. & LEAVY, P. 2005. Oral History, A Collaborative Method of (Auto) Biography Interview. *The Practice of Qualitative Research*, SAGE Publications, 150-151.
- HICKSON, F. S. 1987. THE MANCHESTER PICTURE TEST (1984)-A SUMMARY. *Journal of the British Association of Teachers of the Deaf*, 11, 161-166.
- HINCHCLIFF, R., GREENFIELD, D., MOLDOVAN, M., WESTBROOK, J. I., PAWSEY, M., MUMFORD, V. & BRAITHWAITE, J. 2012. Narrative synthesis of health service accreditation literature. *BMJ Qual Saf*, bmjqs-2012-000852.
- HINNEBUSCH, R. 2016. The sectarian revolution in the Middle East. *Revolutions: global trends and regional issues*.
- HOFFMAN, B. 2002. Rethinking terrorism and counterterrorism since 9/11. *Studies in Conflict and Terrorism*, 25, 303-316.
- HUQ, Z., AGHAZADEH, S.-M., NAJJAR, L. & HAFEZNEZAMI, S. 2010. Employee and customer involvement: the driving force for six-sigma implementation. *The Journal of Applied Business and Economics*, 11, 105.
- HYETT, N., KENNY, A. & DICKSON-SWIFT, V. 2014. Methodology or method? A critical review of qualitative case study reports. *International journal of qualitative studies on health and well-being*, 9, 23606.
- IEMMI, V., BANTJES, J., COAST, E., CHANNER, K., LEONE, T., MCDAID, D., PALFREYMAN, A., STEPHENS, B. & LUND, C. 2016. Suicide and poverty in low-income and middle-income countries: a systematic review. *The Lancet Psychiatry*, 3, 774-783.
- INTERNATIONAL, J. C. & ORGANIZATIONS, J. C. O. A. O. H. 2007. *Joint Commission International accreditation standards for hospitals*, Joint Commission Resources.
- IRFAN, S. & KEE, D. 2013. Critical success factors of TQM and its impact on increased service quality: A case from service sector of Pakistan. *Middle-East Journal of Scientific Research*, 15, 61-74.

- ISMAIL SALAHELDIN, S. 2009. Critical success factors for TQM implementation and their impact on performance of SMEs. *International journal of productivity and performance management*, 58, 215-237.
- JANG, W.-Y. & LIN, C.-I. 2008. An integrated framework for ISO 9000 motivation, depth of ISO implementation and firm performance: The case of Taiwan. *Journal of Manufacturing Technology Management*, 19, 194-216.
- JAVED, S. 2015. Impact of Top Management Commitment on Quality Management. *International Journal of Scientific and Research Publications*, 5.
- JBI 2015. Guidance for conducting systematic scoping reviews. *Joanna Briggs Institute, International journal of evidence-based healthcare*, 13, 141-146.
- JONES, S., TORRES, V. & ARMINIO, J. 2006. *Negotiating the complexities of qualitative research in higher education: fundamental elements and issues*, New York: Routledge.
- JONES, S. R. 2002. (Re) Writing the word: Methodological strategies and issues in qualitative research. *Journal of college student development*, 43, 461.
- JUN, M., CAI, S. & SHIN, H. 2006. TQM practice in maquiladora: Antecedents of employee satisfaction and loyalty. *Journal of operations management*, 24, 791-812.
- KANAMORI, S., SHIBANUMA, A. & JIMBA, M. 2016. Applicability of the 5S management method for quality improvement in health-care facilities: a review. *Tropical medicine and health*, 44, 21.
- KAPAKI, V. & SOULIOTIS, K. 2017. Patient Safety and Medical Errors: Building Safer Healthcare Systems for Better Care. *Impact of Medical Errors and Malpractice on Health Economics, Quality, and Patient Safety*. IGI Global.
- KAWULICH, B. B. Participant observation as a data collection method. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 2005.
- KEARNEY, R. 2018. *Public sector performance: management, motivation, and measurement*, Routledge.
- KEIGHTLEY, E. 2010. Remembering research: memory and methodology in the social sciences. *International journal of social research methodology*, 13, 55-70.
- KHAN, M. S., OSEI-KOFI, A., OMAR, A., KIRKBRIDE, H., KESSEL, A., ABBARA, A., HEYMANN, D., ZUMLA, A. & DAR, O. 2016. Pathogens, prejudice, and politics: the role of the global health community in the European refugee crisis. *The Lancet infectious diseases*, 16, e173-e177.
- KHDOUR, N., DURRAH, O. & A'AQOULAH, A. 2016. The Role of Applying Total Quality Management in Improving Incentives: A Comparative Study between Jordanian and United Arab Emirate Hospitals. *International Journal of Business and Management*, 11, 126.
- KIRK, M. A., KELLEY, C., YANKEY, N., BIRKEN, S. A., ABADIE, B. & DAMSCHRODER, L. 2015. A systematic review of the use of the consolidated framework for implementation research. *Implementation Science*, 11, 72.
- KOCH, T. & HARRINGTON, A. 1998. Reconceptualizing rigour: the case for reflexivity. *Journal of advanced nursing*, 28, 882-890.
- KOEHLER, J. W. 2017. *Continual Improvement in Government Tools and Methods*, Routledge.
- KOTHARI, C. R. 2004. *Research methodology: Methods and techniques*, New Age International.
- KREFTING, L. 1991. Rigor in qualitative research: The assessment of trustworthiness. *American journal of occupational therapy*, 45, 214-222.
- LAKE, A. A., SPEED, C., BROOKES, A., HEAVEN, B., ADAMSON, A. J., MOYNIHAN, P., CORBETT, S. & MCCOLL, E. 2007. Development of a series of patient information leaflets for constipation using a range of cognitive interview techniques: LIFELAX. *BMC health services research*, 7, 3.
- LAMBROU, P., KONTODIMOPOULOS, N. & NIAKAS, D. 2010. Motivation and job satisfaction among medical and nursing staff in a Cyprus public general hospital. *Human resources for health*, 8, 26.

- LAMEIJER, B. A., DE MAST, J. & DOES, R. J. 2017. Lean Six Sigma Deployment and Maturity Models: A Critical Review. *Quality Management Journal*, 24.
- LANTEIGNE, G. & BOUCHARD, C. 2016. Is the introduction of an accreditation program likely to generate organization-wide quality, change and learning? *The International journal of health planning and management*, 31, e175-e191.
- LAPADAT, J. C. & LINDSAY, A. C. 1999. Transcription in research and practice: From standardization of technique to interpretive positionings. *Qualitative inquiry*, 5, 64-86.
- LAURITSEN, M.-B. G., KREINER, S., SÖDERSTRÖM, M., DØRUP, J. & LOUS, J. 2015. A speech reception in noise test for preschool children (the Galker-test): Validity, reliability and acceptance. *International journal of pediatric otorhinolaryngology*, 79, 1694-1701.
- LEEDY, P. D. & ORMROD, J. E. 2005. *Practical research*, Pearson Custom.
- LEGARD, R., KEEGAN, J. & WARD, K. 2003. In-depth interviews. *Qualitative research practice: A guide for social science students and researchers*, 138-169.
- LIBERATORE, M. J. & NYDICK, R. L. 2008. The analytic hierarchy process in medical and health care decision making: A literature review. *European Journal of Operational Research*, 189, 194-207.
- LIN, C.-I. & JANG, W.-Y. 2008. Successful ISO 9000 implementation in Taiwan: How can we achieve it, and what does it mean? *International Journal of Productivity and Performance Management*, 57, 600-622.
- LINCOLN, Y. S. & GUBA, E. G. 1985. *Naturalistic inquiry*, Sage.
- LINCOLN, Y. S., LYNHAM, S. A. & GUBA, E. G. 2011. Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage handbook of qualitative research*, 4, 97-128.
- LOBO, S. R., SAMARANAYAKE, P. & SUBRAMANIAN, N. 2017. The impact of TQM and information communication technology (ICT) as an enabler in the quality management assessment framework (QMAF) on business outcomes. *International Journal of Systems Science: Operations & Logistics*, 1-17.
- LOBO, S. R., SAMARANAYAKE, P. & SUBRAMANIAN, N. 2019. The impact of TQM and information communication technology (ICT) as an enabler in the quality management assessment framework (QMAF) on business outcomes. *International Journal of Systems Science: Operations & Logistics*, 6, 69-85.
- LOUISE BARRIBALL, K. & WHILE, A. 1994. Collecting Data using a semi-structured interview: a discussion paper. *Journal of advanced nursing*, 19, 328-335.
- MACKENZIE, N. & KNIPE, S. 2006. Research dilemmas: Paradigms, methods and methodology. *Issues in educational research*, 16, 193-205.
- MAIR, F. S., MAY, C., O'DONNELL, C., FINCH, T., SULLIVAN, F. & MURRAY, E. 2012. Factors that promote or inhibit the implementation of e-health systems: an explanatory systematic review. *Bulletin of the World Health Organization*, 90, 357-364.
- MARSHALL, M. N. 1996. Sampling for qualitative research. *Family practice*, 13, 522-526.
- MASON, J. 2017. *Qualitative researching*, Sage.
- MAY, C. & FINCH, T. 2009. Implementing, embedding, and integrating practices: an outline of normalization process theory. *Sociology*, 43, 535-554.
- MAY, C. R., MAIR, F., FINCH, T., MACFARLANE, A., DOWRICK, C., TREWEEK, S., RAPLEY, T., BALLINI, L., ONG, B. N. & ROGERS, A. 2009. Development of a theory of implementation and integration: Normalization Process Theory. *Implementation Science*, 4, 29.
- MCEVOY, R., BALLINI, L., MALTONI, S., O'DONNELL, C. A., MAIR, F. S. & MACFARLANE, A. 2014. A qualitative systematic review of studies using the normalization process theory to research implementation processes. *Implementation Science*, 9, 2.
- MERRIAM, S. B. 1998. *Qualitative Research and Case Study Applications in Education. Revised and Expanded from " Case Study Research in Education."*, ERIC.
- MERRIAM, S. B. & TISDELL, E. J. 2015. *Qualitative research: A guide to design and implementation*, John Wiley & Sons.

- MILES, M. B. & HUBERMAN, A. M. 1994. Qualitative data analysis: An expanded sourcebook. 1994. *Beverly Hills: Sage Publications*.
- MILES, M. B., HUBERMAN, A. M. & SALDANA, J. 2013. *Qualitative data analysis*, Sage.
- MILLER, T., BIRCH, M., MAUTHNER, M. & JESSOP, J. 2012. *Ethics in qualitative research*, Sage.
- MIROSHNYCHENKO, I., BARONTINI, R. & TESTA, F. 2017. Green practices and financial performance: a global outlook. *Journal of Cleaner Production*, 147, 340-351.
- MJEMA, E. & MWETA, A. 2003. An analysis of economics of investing in IT in the maintenance department: an empirical study in a cement factory in Tanzania. *Journal of Quality in Maintenance Engineering*, 9, 411-435.
- MOHAMMAD MOSADEGH RAD, A. 2005. A survey of total quality management in Iran: Barriers to successful implementation in health care organizations. *Leadership in Health Services*, 18, 12-34.
- MOHAMMAD MOSADEGHRAD, A. 2013. Obstacles to TQM success in health care systems. *International Journal of Health Care Quality Assurance*, 26, 147-173.
- MOHAMMAD MOSADEGHRAD, A. 2014. Essentials of total quality management: a meta-analysis. *International journal of health care quality assurance*, 27, 544-558.
- MOLNAR, T. 2017. *Arab awakening and Islamic revival: the politics of ideas in the Middle East*, Routledge.
- MORSE, J. M. 1991. Approaches to qualitative-quantitative methodological triangulation. *Nursing research*, 40, 120-123.
- MORSE, J. M. 2000. Determining sample size. Sage Publications Sage CA: Thousand Oaks, CA.
- MULHALL, A. 2003. In the field: notes on observation in qualitative research. *Journal of advanced nursing*, 41, 306-313.
- MUNIR AHMAD, M. & ELHUNI, R. 2014. Critical quality factors for successful TQM implementation in Libyan oil and gas sector. *Benchmarking: An International Journal*, 21, 713-733.
- MURRAY, E., TREWEEK, S., POPE, C., MACFARLANE, A., BALLINI, L., DOWRICK, C., FINCH, T., KENNEDY, A., MAIR, F. & O'DONNELL, C. 2010. Normalisation process theory: a framework for developing, evaluating and implementing complex interventions. *BMC medicine*, 8, 63.
- MUSALLAM, I., ABO-SHEHADA, M., HEGAZY, Y., HOLT, H. & GUITIAN, F. 2016. Systematic review of brucellosis in the Middle East: disease frequency in ruminants and humans and risk factors for human infection. *Epidemiology & Infection*, 144, 671-685.
- MYERS, M. 2000. Qualitative research and the generalizability question: Standing firm with Proteus. *The qualitative report*, 4, 9.
- NAJMANOVICH, R. J., TORRANCE, J. W. & THORNTON, J. M. 2005. Prediction of protein function from structure: insights from methods for the detection of local structural similarities. *Biotechniques*, 38, 847-851.
- NELSON, B. A. 2008. *Healthcare staffs' perception of staffing adequacy*, Texas Woman's University.
- NEUMAN, S. B. & CELANO, D. 2006. The knowledge gap: Implications of leveling the playing field for low-income and middle-income children. *Reading Research Quarterly*, 41, 176-201.
- NEWBY, L. K., RODRIGUEZ, I., FINKLE, J., BECKER, R. C., HICKS, K. A., HAUSNER, E., CHESLER, R., HARPER, C., TARGUM, S. & BERRIDGE, B. R. 2011. Troponin measurements during drug development—considerations for monitoring and management of potential cardiotoxicity: an educational collaboration among the Cardiac Safety Research Consortium, the Duke Clinical Research Institute, and the US Food and Drug Administration. *American heart journal*, 162, 64-73.
- NJIE, B. & ASIMIRAN, S. 2014. Case study as a choice in qualitative methodology. *IOSR Journal of Research and Method in Education*, 4, 35-40.
- NOVICK, G. 2008. Is there a bias against telephone interviews in qualitative research? *Research in nursing & health*, 31, 391-398.

- NUTLEY, S. M., WALTER, I. & DAVIES, H. T. 2007. *Using evidence: How research can inform public services*, Policy press.
- O'DONNELL, C. A., MAIR, F. S., DOWRICK, C., O'REILLY-DE BRÚN, M., DE BRÚN, T., BURNS, N., LIONIS, C., SARIDAKI, A., PAPADAKAKI, M. & VAN DEN MUIJSENBERGH, M. 2017. Supporting the use of theory in cross-country health services research: a participatory qualitative approach using Normalisation Process Theory as an example. *BMJ open*, 7, e014289.
- O'DONOGHUE, T. & PUNCH, K. 2003. *Qualitative educational research in action: Doing and reflecting*, Routledge.
- OAKLAND, J. S. 2014. *Total quality management and operational excellence: text with cases*, Routledge.
- ONGORI, H. 2007. A review of the literature on employee turnover.
- ONWUEGBUZIE, A. J. & LEECH, N. L. 2005. On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies. *International journal of social research methodology*, 8, 375-387.
- ORB, A., EISENHAUER, L. & WYNADEN, D. 2001. Ethics in qualitative research. *Journal of nursing scholarship*, 33, 93-96.
- ØVRETVEIT, J. 2000. Total quality management in European healthcare. *International journal of health care quality assurance*, 13, 74-80.
- ØVRETVEIT, J. & GUSTAFSON, D. 2002. Evaluation of quality improvement programmes. *BMJ Quality & Safety*, 11, 270-275.
- PATEY, A. M., ISLAM, R., FRANCIS, J. J., BRYSON, G. L. & GRIMSHAW, J. M. 2012. Anesthesiologists' and surgeons' perceptions about routine pre-operative testing in low-risk patients: application of the Theoretical Domains Framework (TDF) to identify factors that influence physicians' decisions to order pre-operative tests. *Implementation Science*, 7, 52.
- PATTON, M. Q. 1987. *How to use qualitative methods in evaluation*, Sage.
- PATTON, M. Q. 1990. *Qualitative evaluation and research methods*, SAGE Publications, inc.
- PATTON, M. Q. 2002. *Qualitative research & evaluation methods*, Thousand Oaks Sage Publications. *New York, New Delhi, London*.
- PERRY, C. 2000. Case research in marketing. *The Marketing Review*, 1, 303-323.
- PETERS, M. D., GODFREY, C. M., KHALIL, H., MCINERNEY, P., PARKER, D. & SOARES, C. B. 2015. Guidance for conducting systematic scoping reviews. *International journal of evidence-based healthcare*, 13, 141-146.
- PHILLIPS, J. J. & EDWARDS, L. 2008. *Managing talent retention: an ROI approach*, John Wiley & Sons.
- PILLAY, R. 2008. Managerial competencies of hospital managers in South Africa: a survey of managers in the public and private sectors. *Human Resources for Health*, 6, 4.
- POMEY, M.-P., CONTANDRIOPOULOS, A.-P., FRANÇOIS, P. & BERTRAND, D. 2004. Accreditation: a tool for organizational change in hospitals? *International Journal of Health Care Quality Assurance*, 17, 113-124.
- POPE, C., ZIEBLAND, S. & MAYS, N. 2006. Analysing qualitative data. *Qualitative research in health care*, 63-81.
- RAPLEY, T., GIRLING, M., MAIR, F. S., MURRAY, E., TREWEEK, S., MCCOLL, E., STEEN, I. N., MAY, C. R. & FINCH, T. L. 2018. Improving the normalization of complex interventions: part 1-development of the NoMAD instrument for assessing implementation work based on normalization process theory (NPT). *BMC medical research methodology*, 18, 133.
- RASOOLIMANESH, S. M., JAAFAR, M., BADARULZAMAN, N. & RAMAYAH, T. 2015. Investigating a framework to facilitate the implementation of city development strategy using balanced scorecard. *Habitat International*, 46, 156-165.
- RAUT, R. D., NARKHEDE, B. & GARDAS, B. B. 2017. To identify the critical success factors of sustainable supply chain management practices in the context of oil and gas industries: ISM approach. *Renewable and Sustainable Energy Reviews*, 68, 33-47.

- RIESSMAN, C. K. 2003. Analysis of personal narratives. *Inside interviewing: New lenses, new concerns*, 331-346.
- RITCHIE, J., LEWIS, J., NICHOLLS, C. M. & ORMSTON, R. 2013. *Qualitative research practice: A guide for social science students and researchers*, sage.
- ROBSON, C. 2002. Real world research: A resource for social scientists and practitioner-researchers (Vol. 2): Blackwell Oxford.
- ROBSON, C. & MCCARTAN, K. 2016. *Real world research*, John Wiley & Sons.
- ROSS, J. E. 2017. *Total quality management: Text, cases, and readings*, Routledge.
- ROSSETTO, K. R. 2014. Qualitative research interviews: Assessing the therapeutic value and challenges. *Journal of Social and Personal Relationships*, 31, 482-489.
- RYAN, G. W. & BERNARD, H. R. 2000. Data management and analysis methods.
- SABET, E., ADAMS, E. & YAZDANI, B. 2016. Quality management in heavy duty manufacturing industry: TQM vs. Six Sigma. *Total Quality Management & Business Excellence*, 27, 215-225.
- SAEED, A. 2017. *Freedom of religion, apostasy and Islam*, Routledge.
- SAFETY, A. C. O. & CARE, Q. I. H. 2012. *National safety and quality health service standards*, Australian Commission on Safety and Quality in Health Care.
- SAINIDIS, E. & ROBSON, A. 2016. Environmental turbulence: impact on UK SMEs' manufacturing priorities. *Management Research Review*, 39, 1239-1264.
- SALEH, F. I. M., SWEIS, R. J., ABDELQADER, B. Y., ABDALLAH, A. B. & ARAFEH, M. 2017. The effect of TQM dimensions on the performance of international non-governmental organisations operating in Jordan. *International Journal of Productivity and Quality Management*, 21, 443-459.
- SALEHI-ISFAHANI, D. 2016. Human Development in the Middle East and North Africa. *The New Palgrave Dictionary of Economics*. Springer.
- SALLIS, E. 2014. *Total quality management in education*, Routledge.
- SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2009. *Research methods for business students*, Pearson education.
- SCHENSUL, J. J. & LECOMPTE, M. D. 2012. *Essential ethnographic methods: A mixed methods approach*, Rowman Altamira.
- SCHINKE, R. J., MCGANNON, K. R., PARHAM, W. D. & LANE, A. M. 2012. Toward cultural praxis and cultural sensitivity: Strategies for self-reflexive sport psychology practice. *Quest*, 64, 34-46.
- SCHOORMAN, F. D., MAYER, R. C. & DAVIS, J. H. 2016. Perspective: Empowerment in veterinary clinics: the role of trust in delegation. *Journal of Trust Research*, 6, 91-95.
- SCHWANDT, T. A., LINCOLN, Y. S. & GUBA, E. G. 2007. Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for evaluation*, 2007, 11-25.
- SEALE, C. 1999. Quality in qualitative research. *Qualitative inquiry*, 5, 465-478.
- SECRETARIAT, G. 2016. High Health Council.
- SEETHARAMAN, A., SREENIVASAN, J. & BOON, L. P. 2006. Critical success factors of total quality management. *Quality and Quantity*, 40, 675-695.
- SEIDMAN, I. 2013. *Interviewing as qualitative research: A guide for researchers in education and the social sciences*, Teachers college press.
- SEKARAN, U. & BOUGIE, R. 2003. *Research methodology for business*. New York: John Wiley & Sons, Inc.
- SELBY, J. & TADROS, M. 2016. Introduction: Eight myths of conflict and development in the Middle East.
- SEREN, S. & BAYKAL, U. 2007. Relationships between change and organizational culture in hospitals. *Journal of Nursing Scholarship*, 39, 191-197.
- SHAFIQ, M., LASRADO, F. & HAFEEZ, K. 2017. The effect of TQM on organisational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management & Business Excellence*, 1-22.
- SHAH, N., IRANI, Z. & SHARIF, A. M. 2017. Big data in an HR context: Exploring organizational change readiness, employee attitudes and behaviors. *Journal of Business Research*, 70, 366-378.

- SHAMEER, D. & SING, C. Barriers to total quality management (tqm)-Implementation in the mauritian food industry. Proceedings of the 11th International Conference on Manufacturing Research (ICMR2013), Cranfield University, UK, 19th, 2013a. 611-616.
- SHAMEER, D. & SING, C. 2013b. Barriers to total quality management (tqm)-Implementation in the mauritian food industry.
- SHENTON, A. K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22, 63-75.
- SILA, I. & EBRAHIMPOUR, M. 2003. Examination and comparison of the critical factors of total quality management (TQM) across countries. *International journal of production research*, 41, 235-268.
- SILVERMAN, H. J., LUCE, J. M., LANKEN, P. N., MORRIS, A. H., HARABIN, A. L., OLDMIXON, C. F., THOMPSON, B. T. & BERNARD, G. R. 2005. Recommendations for informed consent forms for critical care clinical trials. *Critical care medicine*, 33, 867-882.
- SIMON, G. 2012. Sample Size Matters, What type of cook (researcher) are you. *Excerpted from: Dissertation and Scholarly Research: Recipes for Success*.
- SINHA, N., GARG, A. K., DHINGRA, S. & DHALL, N. 2016. Mapping the linkage between organizational culture and TQM: The case of Indian auto component industry. *Benchmarking: An International Journal*, 23, 208-235.
- SMITH, J. & FIRTH, J. 2011. Qualitative data analysis: the framework approach. *Nurse researcher*, 18, 52-62.
- SNAPE, D. & SPENCER, L. 2003. Introduction to Research Method. *J, Ritchie and Lewis, J.(2003) Qualitative Research Practice: A Guide for Social Science Students and Researchers (Ed). Sage Publications, London*.
- SOMEKH, B., HALDANE, M., JONES, K., LEWIN, C. & STEADMAN, S. 2005. Interim report to the Department for Education and Skills. *Unpublished report from the SWEEP project*.
- SRIVASTAVA, A. & THOMSON, S. B. 2009. Framework analysis: a qualitative methodology for applied policy research.
- STAKE, R. E. 1995. *The art of case study research*, Sage.
- STAKE, R. E. 2013. *Multiple case study analysis*, Guilford Press.
- STARMAN, A. B. 2013. The case study as a type of qualitative research. *Journal of Contemporary Educational Studies/Sodobna Pedagogika*, 64.
- STEPHEN, S. O. & BULA, H. 2017. Human Resource Management Practices and Quality of Health Care Service Delivery at Jaramogi Oginga Odinga Teaching and Referral Hospital, Kenya. *Human Resource Management*, 126-140.
- STOUGH, S., EOM, S. & BUCKENMYER, J. 2000. Virtual teaming: a strategy for moving your organization into the new millennium. *Industrial Management & Data Systems*, 100, 370-378.
- SUBRAHMANYA BHAT, K. & RAJASHEKHAR, J. 2009. An empirical study of barriers to TQM implementation in Indian industries. *The TQM Journal*, 21, 261-272.
- SUEN, L.-J. W., HUANG, H.-M. & LEE, H.-H. 2014. A comparison of convenience sampling and purposive sampling. *Hu Li Za Zhi*, 61, 105.
- SULTAN, S. 2012. Examining the Job Characteristics: A Matter of Employees' Work Motivation and Job Satisfaction. *Journal of behavioural sciences*, 22.
- SWEIS, R. J., SALEH, R. A., AL-ETAYYEM, R. H., QASRAWI, B. T. & MAHMOUD, A. M. A. 2016. Total quality management practices and organisational performance in Jordanian courier services. *International Journal of Productivity and Quality Management*, 19, 258-276.
- TABAK, R. G., KHOONG, E. C., CHAMBERS, D. A. & BROWNSON, R. C. 2012. Bridging research and practice: models for dissemination and implementation research. *American journal of preventive medicine*, 43, 337-350.
- TAIWO, J. 2001. Systems approaches to total quality management. *Total Quality Management*, 12, 967-973.

- TALIB, F. & RAHMAN, Z. 2015. Identification and prioritization of barriers to total quality management implementation in service industry: an analytic hierarchy process approach. *The TQM Journal*, 27, 591-615.
- TALIB, F., RAHMAN, Z. & AZAM, M. 2010. Total quality management implementation in the healthcare industry: a proposed framework.
- TALIB, F., RAHMAN, Z. & AZAM, M. 2011a. Best practices of total quality management implementation in health care settings. *Health Marketing Quarterly*, 28, 232-252.
- TALIB, F., RAHMAN, Z. & QURESHI, M. 2011b. Assessing the awareness of total quality management in Indian service industries: An empirical investigation. *Asian Journal on Quality*, 12, 228-243.
- TAYLOR, N., LAWTON, R. & CONNER, M. 2013. Development and initial validation of the determinants of physical activity questionnaire. *International Journal of Behavioral Nutrition and Physical Activity*, 10, 74.
- TAYLOR, S. J., BOGDAN, R. & DEVAULT, M. 2015. *Introduction to qualitative research methods: A guidebook and resource*, John Wiley & Sons.
- TERZIC-SUPIC, Z., BJEGOVIĆ-MIKANOVIC, V., VUKOVIC, D., SANTRIC-MILICEVIC, M., MARINKOVIC, J., VASIC, V. & LAASER, U. 2015. Training hospital managers for strategic planning and management: a prospective study. *BMC medical education*, 15, 25.
- TOBIN, G. A. & BEGLEY, C. M. 2004. Methodological rigour within a qualitative framework. *Journal of advanced nursing*, 48, 388-396.
- TROTT, P. & SIMMS, C. 2017. An examination of product innovation in low-and medium-technology industries: Cases from the UK packaged food sector. *Research Policy*, 46, 605-623.
- TWAISSI, N. M., WORSDALE, G. & ROLLINS, R. 2009. The role of national culture in Total Quality Management. Middle East Quality Association Hamdan Bin Mohammed e-University.
- ULLAH, J. H., AHMED, R., MALIK, J. I. & KHAN, M. A. 2011. Outcome of 7-S, TQM technique for healthcare waste management. *J Coll Physicians Surg Pak*, 21, 731-734.
- VALMOHAMMADI, C. & ROSHANZAMIR, S. 2015. The guidelines of improvement: Relations among organizational culture, TQM and performance. *International Journal of Production Economics*, 164, 167-178.
- VAN NES, F., ABMA, T., JONSSON, H. & DEEG, D. 2010. Language differences in qualitative research: is meaning lost in translation? *European journal of ageing*, 7, 313-316.
- VRANKEN, M. J., LISMAN, J. A., MANTEL-TEEUWISSE, A. K., JÜNGER, S., SCHOLTEN, W., RADBRUCH, L., PAYNE, S. & SCHUTJENS, M.-H. D. 2016. Barriers to access to opioid medicines: a review of national legislation and regulations of 11 central and eastern European countries. *The Lancet Oncology*, 17, e13-e22.
- WAHYUNI, D. 2012. The research design maze: Understanding paradigms, cases, methods and methodologies.
- WARDHANI, V., UTARINI, A., VAN DIJK, J. P., POST, D. & GROOTHOFF, J. W. 2009. Determinants of quality management systems implementation in hospitals. *Health policy*, 89, 239-251.
- WARING, J., ALLEN, D., BRAITHWAITE, J. & SANDALL, J. 2016. Healthcare quality and safety: a review of policy, practice and research. *Sociology of Health & Illness*, 38, 198-215.
- WARRICK, C. 2016. *Law in the service of legitimacy: Gender and politics in Jordan*, Routledge.
- WHITE, G. R. T., SAMUEL, A., ZHOU, P., RAZAK, A. A. & THOMAS, S. 2018. Religious heterogeneity of food consumers: The impact of global markets upon methods of production. *Journal of Consumer Behaviour*, 17, 3-12.
- WHITELAW, S., THIRLWALL, C., MORRISON, A., OSBORNE, J., TATTUM, L. & WALKER, S. 2017. Developing and implementing a social prescribing initiative in primary care: insights into the possibility of normalisation and sustainability from a UK case study. *Primary health care research & development*, 18, 112-121.

- WILKINSON, S. 2000. Women with breast cancer talking causes: Comparing content, biographical and discursive analyses. *Feminism & Psychology*, 10, 431-460.
- WILLIAMSON, I., SHERIDAN, C., GALKER, E. & LOUS, J. 1999. A video-based performance in noise test for measuring audio-visual disability in young school children: test development, with validation by trained teachers, parents and audiometry as relative standards for disability. *International journal of pediatric otorhinolaryngology*, 49, 127-133.
- WOOLF, S. H. 2008. The meaning of translational research and why it matters. *Jama*, 299, 211-213.
- YAMI, A., LITHERLAND, A., DAVIS, J., SAHLU, T., PUCHALA, R. & GOETSCH, A. 2000. Effects of dietary level of *Leucaena leucocephala* on performance of Angora and Spanish doelings. *Small Ruminant Research*, 38, 17-27.
- YIN, R. K. 2003. Case study research design and methods third edition. *Applied social research methods series*, 5.
- YIN, R. K. 2015. *Qualitative research from start to finish*, Guilford Publications.
- YOUSEFINEZHADI, T., MOSADEGHRAD, A. M., MOHAMMAD, A., RAMEZANI, M. & SARI, A. A. 2017. An analysis of hospital accreditation policy in Iran. *Iranian Journal of Public Health*, 46, 1347.
- YOUSSEF, N. F., ALSHRAIFEEN, A., ALNUAIMI, K. & UPTON, P. 2018. Egyptian and Jordanian nurse educators' perception of barriers preventing the implementation of evidence-based practice: A cross-sectional study. *Nurse education today*, 64, 33-41.
- YUNIS, M., JUNG, J. & CHEN, S. 2013. TQM, strategy, and performance: a firm-level analysis. *International Journal of Quality & Reliability Management*, 30, 690-714.
- YUSUF, S., BOSCH, J., DAGENAIS, G., ZHU, J., XAVIER, D., LIU, L., PAIS, P., LÓPEZ-JARAMILLO, P., LEITER, L. A. & DANS, A. 2016. Cholesterol lowering in intermediate-risk persons without cardiovascular disease. *New England Journal of Medicine*, 374, 2021-2031.
- ZARIFRAFTAR, M. & ARYANKHESAL, A. 2016. Challenges of Implementation of Accreditation Standards for Health Care Systems and Organizations: A Systematic Review. *Journal of Management Sciences*, 2, 191-201.
- ZEHIR, C., ERTOSUN, Ö. G., ZEHIR, S. & MÜCELDILLI, B. 2012. Total quality management practices' effects on quality performance and innovative performance. *Procedia-Social and Behavioral Sciences*, 41, 273-280.
- ZHU, X., CASTELLANI, R. J., TAKEDA, A., NUNOMURA, A., ATWOOD, C. S., PERRY, G. & SMITH, M. A. 2001. Differential activation of neuronal ERK, JNK/SAPK and p38 in Alzheimer disease: the 'two hit' hypothesis. *Mechanisms of ageing and development*, 123, 39-46.
- ZIADAT, W. M. 2017. *A meta-analysis study of project and programme management complexity in the oil and gas sector of the Middle East and North Africa region*. Faculty of Science and Engineering, The University of Manchester.
- ZYDZIUNAITE, V. 2012. Challenges and issues in nursing leadership. *J Nurs Care*, 1, e105.

Appendixes

Appendix 1

Interview protocol and guide

This is a draft of the interview guide; the final interview will be concluded after a piloting this draft and the suggestion for participants used to improve this draft.

Overview:

Thank for you to take part in this interview.

Going through information sheet (confidentiality, withdraw at any time; stop recording anytime and specific needs).

Obtaining signed consent

Do you have questions about this study before we start?

Key questions will be asked, with a series of additional prompt questions used only when interviewed do not refer to the main topic.

Research question:

1. What are the barriers and facilitators associated with implementing total quality management (TQM) practices in Jordanian hospitals, from the perspective of nurses, managers and doctors'?

Overview:

Mangers, nuresse and doctores

Thank for you to take part in this interview

Going through information sheet (confidentiality, withdraw at any time; stop recording anytime and specific needs).

Obtaining signed consent where applicable.

Do you have questions about this study before we start?

Key questions will be asked, with a series of additional prompt questions used only when interviewee do not refer to the main topic.

Could I begin this interview by taking a few minutes to talk about yourself?

Interview Date:

Your age:

Name of your hospital:

Name of the Department:

Your Educational Level:

Your position and title in the hospital.....

Years of work:

SEMI-STRUCTURED INTERVIEW SCHEDULE –
1. What is your opinion about TQM generally?
2. Does your hospital has clear vision of TQM implementation?
3. Why did your hospital decide to go for TQM?
4. Which individuals are key to support the implementation of TQM in your hospital? and how
5. From your perspective and experince what has been put in place to facilitate the TQM implementation and sustainability of implementing it in your hsopital ?
6. From you experice what the barrier/challenges that you have faced throughout the TQM practice?
7. What do you think needs to be done/implemented for these barriers to be addressed?
8. How did the staf and the culture affect the implementation process?
9. From your experivce , how did the staff com to be enegage with TQM implemenation
10. To what extent information is easily available from the various sources to all those that require it.
11. What forms of motivation are available for staff in yor hodpital for contributing toward the TQM implemenation?
12. What are, in your opinion, some strategies to better implement TQM in your hospital?
13. What are the resources or funding did higher authority provide to facilitate the process of TQM and its implementation?
14. How did the hospital get the ability to find the financial and human resources which are necessary to implement and maintain the TQM implemenation standards?

Appendix 2

Observation protocol template (Developed by the researcher for this study)

Date: Wednesday 10th February 2018	Time : 10 Am to 11 Am
Location: Hospital A (meeting room)	Event: meeting
<p>During this meeting I witnessed that the administration manager, heads of all departments, 3 Quality management office, registered nurses, pharmacies, and technicians, receptionists and administrations attended the meeting from 10am to 11 am on Wednesday 10th February 2018. The attendance discussed the following points:</p> <ul style="list-style-type: none"> • Progress of the electrical safety testing programme • general quality issues such as reworks, patient's family complaints related to shortage nurses in male wards and ICU • training of new nursing. • Doctors issues such as records and traceability, incomplete paperwork • general discussions on training, internal audits and annual leave 	

Appendix 3

Ethical approval from ethical committee in (University of Nottingham) and (Jordanian hospitals) respectively



University of Nottingham
UK | CHINA | MALAYSIA

Email: EMHS-ResearchEthics@nottingham.ac.uk

**Faculty of Medicine & Health Sciences
Research Ethics Committee**
c/o Faculty PkC Office
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH

24 January 2018

Mr Abdullah Ahmad Aigunmeeyn
PhD Student in Nursing
c/o Dr Aimee Aubeeluck
Associate Professor
School of Health Sciences
Room 410 Derby
Education Centre
Royal Derby Hospital
Uttoxeter Road
Derby
DE22 3DT

Dear Mr Aigunmeeyn

Ethics Reference No: 141-1710 – please always quote	
Al-Esra Hospital: letter of approval dated 5/8/2017	
King Hussain Cancer Center: IRB No 17/KHCC 123 approval letter dated 29/11/2017.	
Study Title: Exploring the barriers and facilitators to the implementation of Total Quality Management in the King Hussain Cancer Centre (KHCC) and AL-Esra Hospital in Jordan: Staff Perspectives.	
Short Title: Barriers and facilitators to TQM implementation in hospital.	
Chief Investigator/Supervisor: Dr Aimee Aubeeluck, Associate Professor, School of Health Sciences, Education Centre, Royal Derby Hospital.	
Lead Investigator/student: Abdullah Ahmad Aigunmeeyn, PhD student in Nursing Studies.	
Other Key Investigators: Dr Heather Buchanan, Associate Professor, Division of Rehabilitation and Ageing, School of Medicine	
Type of Study: overseas, PhD student project, qualitative	
Proposed Start Date: 01/12/2017	Proposed End Date: 01/03/2018 3mths
No of Subjects: KHCC:15 AL-Esra: 15	Age: 18+years
School: Health Sciences, Medicine	

Thank you for notifying the Committee of amendment no 1: 24.01.2018 as detailed:

- Addition of an Observation study to enhance understanding and achieve aims.

This has been reviewed and is satisfactory and the study amendment no 1: 24.01.2018 has been given a favourable opinion.

A favourable opinion is given on the understanding that:

1. All appropriate ethical and regulatory permissions are respected and followed in accordance with all local laws of the country in which the study is being conducted and those required by the host organisation/s involved.
2. The Committee is informed of any changes to the protocol using a notification of amendment form (please request a form).
3. The Chair is informed of any serious or unexpected event.



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4. An End of Project Progress Report is completed and returned when the study has finished (please request a form).

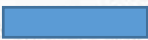
Yours sincerely

Professor Ravi Mahajan
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee



Date: 29/November/2017

Dear Mr. Abdullah Ghunmeeyn and Ms. Majd Hamaly,

In reference to the proposal entitled: "Exploring the barriers and facilitators to the implementation of Total Quality Management in King Hussain Cancer Centre and AL-Essra hospital in Jordan: Staff Perspectives" Proposal No .

You are kindly informed that the IRB has reviewed and approved the following document(s):

1. IRB Proposal Submission FORM A
2. Interview Questions
3. Information sheets and consent forms for managers, physicians and nurses
4. Flyer "Invitation for Participation"

Kindly note that this proposal was exempted from full IRB review and approved.

Kindly note that if the study extends beyond one year you have to submit an **IRB Request for Continuing Approval Form** and an interim update on the study. For any modifications on the approved proposal please complete the **IRB Request for Modification Form**. At the end of the study, you are requested to submit an **End of Study Report** to the IRB.

Please inform the IRB office of any publications/ abstracts that may result from this research.





Letter of Approval

Reference to your email (5/8/2017) request that Mr Abdullah Ahmad Abdullah Algunmceyn contact a research titled “Exploring the barriers and facilitators to the implementation of Total Quality Management in the King Hussein Cancer Centre in and [redacted] Hospital Jordan: Staff Perspectives”.

I would like to notify that your request is approved as long as you mention Al-Essra Hospital in name of research “Exploring the barriers and facilitators to the implementation of Total Quality Management in the King Hussein Cancer Centre in and Al-Essra Hospital Jordan: Staff Perspectives”.



Appendix 4



Information Sheet

Nurses Information Sheet (as example)

The Nursing information sheet as an example of one of the information sheets. The researcher will provide to the participants' (managers nurses and doctors)

Title of Study: Exploring the barriers and facilitators to the implementation of Total Quality Management in Jordanian hospitals: Staff Perspectives

Study ID:

Name of Researchers:

Dr. Aimee Aubeeluck

Dr. Heather Buchanan

Abdullah Ahmad Abdullah Aljunmeeyn

We would like to invite you to participate in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Please take your time to read the following information carefully. Abdullah Aljunmeeyn will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

The aim of the proposed study is to explore the barriers, facilitators, and better understanding the implementation of TQM in the Jordanian healthcare from an understanding and experience of staff (managers, nurses, and doctors).

Why have I been invited?

You are being invited to take part because you are working as a nurse at Hospital A or Hospital B. We are inviting nurses who are:

Nurses have had experience in their field for more than one year in the Hospital A or and Hospital B.

Do I have to take part?

It is up to you to decide whether you would like to take part in this study. If you do agree to participate in this study, you will be given this information sheet to keep and also the researcher will ask you to sign a consent form on the day of the interview. If you decide to take part you are still free to withdraw at any time and without providing a reason. Any data collected from you will be anonymized and coded before analysis.

What will happen to me if I take part?

If you agree to take part in this study, you can express your interest by contacting the institutional review board (IRB) in Hospital A or Hospital B and provide them with your details such as email, phone number, home address and name. The IRB will provide the details of participants to a member of the research team called Abdullah Aljunmeeyn. He will contact you within one week of receipt of your details to arrange a face-to-face interview at a time or a place convenient for you within Hospital A and Hospital B. On the interview date, you will be asked to read and sign a consent form for the interview to take place. After signing the consent form, you will be interviewed by Abdullah Aljunmeeyn. He will ask you a number of questions about your experience of Total Quality Management (TQM) in Hospital A and Hospital B. The interview will be recorded by the researcher using an audio recorder. We anticipate that it will take approximately one hour of your time. Afterward, eligible participants for the interview will be asked about their interest to participate in a future survey study that will follow on from this work.

The team of researchers will follow the ethical and legal practice and all information about you will be handled in confidence. If you take part in the study, the data collected will be accessed by members of the research team at the University of Nottingham. All will have a duty of confidentiality to you as a research participant.

Expenses and inconvenience allowance

This research does not offer any incentives or expenses for taking part in this study.

What are the possible disadvantages and risks of taking part?

We do not envisage any disadvantages or risk in participating in this study.

What are the possible benefits of taking part?

There are no direct benefits to you for participating in the study. However, we hope that by taking part in the study you will contribute your views, preferences, and experience in a constructive manner to help further our understanding of nursing experiences of TQM in Hospital A and Hospital B. Taking part in this study will contribute to providing the quality managers in Hospital A and Hospital B, and in health care in Jordan with an opportunity

to develop plans that address any limitations of TQM that arise through this research and build upon identified successes.

Will my taking part in the study be kept confidential?

The researcher will follow the ethical and legal practice and all information about you will be handled in confidence. If you take part in this study, some parts of the data collected for the study will be looked at by authorised persons (Dr. Aimee Aubeeluck and Dr. Heather Buchanan) from the University of Nottingham who are supervising the research. All will have a duty of confidentiality to you as a research participant. All information which is collected about you during the period of the research will be kept strictly confidential, stored in a secure and locked office, and on a password protected database. Any information about you which leaves the institution will have your name and address removed (anonymised) and a unique code will be used so that you cannot be recognized for its. Your personal data (address, telephone number) will be kept, the end of the study so that the researcher is able to contact you about the findings of the study and possible follow-up studies (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

What will happen if I don't want to carry on with the study?

Your participation is completely voluntary. If you consent to participate in this study and then change your mind and wish to withdraw, you can do so at any time without presenting any reason and also without this decision influencing your career in Hospital A or Hospital. Your legal rights will not be affected, by any decision to withdraw from the study. However, once the interview data we have collected from you is anonymized we will be unable to withdraw this from the study analysis as there will be no way of linking the data back to yourself.

What will happen to the results of the research study?

The findings of the research will be disseminated through the research thesis of the researcher (Abdullah Algunmeeyn), presentations at conferences and academic publications. You will not be identifiable in any of these. The findings of the research and also will be available in Hospital A and Hospital B. If you would like to have a summary of the report, please contact the researcher whose contact details are given at the end of this document.

Who is organising and funding the research?

This research is being organised by the University of Nottingham and is being funded by Al-Isra University.

Who has reviewed the study?

All research at the University of Nottingham is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given the favourable opinion by Medical School Ethics Committee and Hospital A and Hospital B.

What if there is a problem?

If you have a concern about any aspect of this study, you should contact the Chief investigator e-mail: ntxaaa@nottingham.ac.uk. The full contact details of the research team are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, School of Medicine Education Centre, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, and Nottingham, NG7 2UH. E-mail: louise.sabir@nottingham.ac.uk.

Will your participation in the research remain confidential?

If you agree to take part in this study, your personal details such as name, email, and phone number will not be recorded on the interview sheet or the audiotape and the information will not be disclosed to other parties. Your responses to the questions will be used for the purpose of this project and academic publications, and the researchers will not have access to any of your medical records. You can be assured that if you participate in the research you will remain anonymous.

Further information and contact details

Please do not hesitate to contact Abdullah Algunmeeyn (Ph.D Student) for any further information or queries about the study:

Email: ntxaaa@nottingham.ac.uk

Mobile: +44(0)7543233329

00962777997762

Alternatively, you may contact her supervisors:

Dr. Aimee Dr. Aimee Aubeeluck

(Principal supervisor)

Email: Aimee.Aubeeluck.@nottingham.ac.UK

Dr. Heather Buchanan (Co-supervisor)

Email: [Heather. Buchanan @nottingham.ac.UK](mailto:Heather.Buchanan@nottingham.ac.uk)

Appendix 5



Consent form

Final version 1.0: date

The title of Study: Exploring the barriers and facilitators to the implementation of Total Quality Management in Jordanian hospitals: Staff perspectives.

Name of Researcher: Abdullah Ahmad Abdullah Algunmeeyn

Please initial box

1. I confirm that I have read and understood the information sheet version numberdated..... for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.
3. I understand that relevant sections of my data collected in the study may be looked at by the research group and by other responsible individuals for monitoring and audit purposes. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.
4. I understand that the interview will be recorded using a tape recorder and that anonymous direct quotes from the interview/ may be used in the study reports.
5. I understand that all data will be anonymous and confidential with the exception of information being revealed during the interview which is of concern and may need reporting i.e. potential risks to another person or to myself.
6. throughout that confidentiality will be maintained
7. I understand that information about me recorded during the study will be kept in a secure database. If the data is transferred is will be made anonymous. Data will be kept for 7 years after the study has ended and then destroyed.

8. I agree to take part in the above study.

_____	_____	_____
Name of Participant	Date	Signature

Name of Person taking consent

Date Signature

2 copies: 1 for the participant, 1 for the project notes.

STUDY NUMBER

Name:

Address:

Telephone number:.....

The information below to be completed by one of the named investigators:

I confirm that I have fully explained the purpose of the study and what is involved too:

Name:.....

I have given the above named a copy of this form together with the information sheet.

Investigators Signature:

Name.....

Ethics Code:

Study Number:

Appendix 6

Interviews coding sheet (Theme 1)

Themes				
code	Motivation, Good Wages and Poor Incentives	Resistance from Doctors	Staff Shortages and High Turnover	Cost of TQM Implementation
Interviewee M1	the lack motivation and staff rewards		We have a high rate of turnover, especially among nursing staff	In general, a TQM programme is costly because this cost is associated with consultants' fees [and] there need to be courses and training. It cost the hospital a lot of money, such as in consultants' fees and we added some wards... we conformed to the fire and safety requirements of the JCI standards for the entire hospital
Interviewee M2	The reward should not only be for managers, but also for other hospital staff	Honestly, in the beginning, the idea was completely new for	Our department was stable, but now we are facing a problem, which is a high turnover of nurses	Any hospital getting ready to implement TQM needs financial support, so sometimes it is difficult for private hospitals, because there is no outsourcing to support it

		doctors, so the hospital faced difficulties in getting them involved, prompting them and getting them to believe in the programme and its value		
Interviewee M3	Lack of motivation and low wage	this resistance presents a problem in our hospital, since not all healthcare providers, I mean especially the doctors, are directly employed by this hospital,	At certain times throughout the application of the TQM programme, the problem of turnover was encountered	I see that the barrier to TQM, as I mentioned earlier, is that it's very costly, but maybe after 2-4 years, once everything is working in the right way and things have settled down, it will save money

		because, as you know, this is a private hospital		
Interviewee M4			The actual barrier that I see in our hospital is high staff shortage and turnover, mainly in nursing	The big barrier I am sure was the money. I remember that the top management managed to arrange for financial support to carry out the TQM implementation (ISO2200) by saving part of the hospital budget to pay the cost of consultants' fees
Interviewee M5		There is a resistance to the implementation of the TQM standards among the doctors in this hospital		it needs major funding to achieve it, because the hospital needs appropriate funds and support
Interviewee N1	lack of motivation amongst staff	the doctors who come from outside our hospital are	The staff shortage in this hospital leads to heavy workload for current staff and surely affects our performance	

		still difficult to engage [in TQM]	and the quality of care provided to patients... most nurses leave the hospital, because of the lack of benefits, such as incentives and bonuses	
Interviewee N2	a lack of motivation and good wages impacts negatively on TQM in this hospita		In my opinion, it is difficult for any hospital to apply TQM or a quality programme and obtain national or international accreditation, if it has a shortage of staff like us... as I said before, there is no good salary or incentive for the nursing staff in this hospital	cost was a barrier for our hospital, because to involve all staff in the implementation of TQM, you need to educate and support them; this incurs a huge cost and also a long time... you have to pay a lot for consultants' fees
Interviewee N3	lack of motivation and good wages impacts negatively on TQM in this hospital		I think the hospital operates under pressure due to staff shortages, so we have the problem of the hospital being unable to offer proper services to its patients	
Interviewee N4	The salaries, bonuses and incentives at this hospital are not good		Most of the staff turnover here is due to salary and benefits, such as incentives or bonuses	

<p>Interviewee N5</p>	<p>Believe me, if the hospital management increased our wages and established a system of staff motivation, turnover would decrease and qualified and experienced staff from other hospitals would work here, I am sure</p>	<p>In my opinion, another barrier to TQM implementation in our hospital is that it is difficult to involve the doctors who are employed by this hospital, or who visit it as consultants and specialists in the TQM process, because they are very busy in their daily and routine work</p>	<p>I see that turnover is the main [...] first, and most important barrier to TQM in our hospital</p>	<p>And the cost, in my opinion, is a barrier. Why? Because applying such a TQM programme requires paying consultants' fees and takes time</p>
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Interviewee D1			However, the data analysis found that some of the interviewees accepted the fact of high turnover among the nursing staff. For example, Interviewee D1 commented	
Interviewee D2		The consultants and specialists from outside our hospital are not guided properly by the hospital Director	and I also see the shortage of nurses as a major barrier to TQM implementation in this hospital, because nursing is the area of healthcare provision where there is highest engagement and commitment to TQM implementation in this hospital	
Interviewee D3				
Interviewee D4			However, the data analysis found that some of the interviewees accepted the fact of high turnover among the nursing staff. For example, Interviewee D1 commented	

Interviewee D5	Lack of motivation	Frequent turnover of staff	highy resistance to apply this management from octores in this hospital	he cost of the TQM process was relatively unreasonable because our hospital not very old.
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Appendix 7

The three phases of framework analysis

Column1 : Initial framework	Column 2 : Revised framework used in indexing
<p>1. Cost of TQM Implementation</p> <ul style="list-style-type: none"> • consultants' fees • Training programmes are costly • Required a lot of renovation in relation to the hospital building to meet the safety standards • Upgrading of the fire alarm system in hospital • financial support to achieve the implementation of TQM • High cost was related to the consultants' expenses • receiving the money on time was an issue • Insufficient budget for a TQM • The high costs of implementing TQM • TQM demands a huge budget 	<p>1. Cost of TQM Implementation</p> <ul style="list-style-type: none"> • consultants' fees • Training programmes are costly • Required a lot of renovation in relation to the hospital building to meet the safety standards • Upgrading of the fire alarm system in hospital • financial support to achieve the implementation of TQM • High cost was related to the consultants' expenses • receiving the money on time was an issue • Insufficient budget for a TQM • The high costs of implementing TQM • TQM demands a huge budget
<p>2. Motivation</p> <ul style="list-style-type: none"> • rewarding qualified hospital staff • using morale incentives to encourage the staff • Hospital management should be able to motivate staff 	<p>2. Lack of motivation, Good wages and Good Incentive</p> <ul style="list-style-type: none"> • The hospital provides good salary • rewarding qualified hospital staff • using morale incentives to encourage the staff • Hospital management should be able to motivate staff • Good wages

<p>3. Lack of motivation</p> <ul style="list-style-type: none"> • Lack of motivation • Insufficient staff motivation • Lack of costs and benefits analysis • Lack of reward • Rewards should not be given only for managers • having straightforward reward criteria will improve applying TQM • lack of rewarding qualified hospital staff • lack of recognition 	<p>3. Lack of motivation, Low wages and Poor Incentive</p> <ul style="list-style-type: none"> • Lack of motivation • Insufficient staff motivation • Lack of costs and benefits analysis • Lack of reward • Rewards should not be given only for managers • having straightforward reward criteria will improve applying TQM • staff are looking for good salaries • staff are looking for work benefits • Increasing salaries • introducing some benefits will reduce the turnover of qualified hospital staff • lack of rewarding qualified hospital staff • lack of recognition • low salary
<p>4. Staff shortages</p> <ul style="list-style-type: none"> • shortage of healthcare providers staff • There is a high demand on doctors and nurses • Shortage of staff and rapid turnover • staff retention is relatively low • introducing some benefits will reduce the turnover of qualified hospital staff 	<p>4. Staff shortages and high staff turnover</p> <ul style="list-style-type: none"> • Frequent turnover of employees • having more turn-over rates • shortage of healthcare providers staff • Shortage of staff and rapid turnover • staff retention is relatively low • introducing some benefits will reduce the turnover of qualified hospital staff
<p>5. Training and Staff Awareness</p>	<p>5. Training and Staff Awareness</p>

<ul style="list-style-type: none"> • staff are empowered to implement quality improvement • Continual staff development. • Advanced training courses. • sufficient of knowledge and skills • sufficient of understanding of TQM concepts 	<ul style="list-style-type: none"> • staff are empowered to implement quality improvement • Continual staff development. • Advanced training courses. • sufficient of knowledge and skills • sufficient of understanding of TQM concepts • training was a contributor to the process of activation • continuous training creates a sustainable TQM implementation
<p>6. Support from top management</p> <ul style="list-style-type: none"> • Support from the head of the hospital • support for the programme is strong <p>sufficient of top management support</p>	<p>6. Doctors` resistance</p> <ul style="list-style-type: none"> • Lack of commitment from doctors • difficult to involve doctors in the process • doctors` indifference towards TQM • doctors` resistance to involve
<p>7. Commitment</p> <ul style="list-style-type: none"> • Manager commitment and involvement • existence of a sense of unity and loyalty • existence of commitment from workers • Top management is committed to quality 	<p>7. Training and awareness</p> <ul style="list-style-type: none"> • staff are empowered to implement quality improvement • Continual staff development. • Advanced training courses. • sufficient of knowledge and skills • sufficient of understanding of TQM concepts • training was a contributor to the process of activation • continuous training creates a sustainable TQM implementation
<p>8. Communication</p> <ul style="list-style-type: none"> • communication in enhancing teamwork 	<p>8. Commitment and Support from top management</p> <ul style="list-style-type: none"> • Support from the head of the hospital • support for the programme is strong

	<ul style="list-style-type: none"> • sufficient of top management support • Manager commitment and involvement • existence of a sense of unity and loyalty • existence of commitment from workers • Top management is committed to quality
<p>9. Meeting</p> <ul style="list-style-type: none"> • regular meetings • meetings played a very important role in disseminating the culture of quality • weekly meetings 	<p>9. Communication</p> <ul style="list-style-type: none"> • communication in enhancing teamwork • regular meetings • meetings played a very important role in disseminating the culture of quality • weekly meetings
<p>10. Patient involvement and engagement</p> <ul style="list-style-type: none"> • Continuous patient evaluation surveys • patient satisfaction surveys 	<p>10. Teamwork</p> <ul style="list-style-type: none"> • better teamwork • work as a team in the hospital, • improving teamwork and collaboration across the hospital • The most important implementation TQM achieved through teamwork • creating a sense of teamwork • the staff was engaged in teamwork • communication in enhancing teamwork • existing understanding and teamwork among the staff • involvement of the staff in teamwork • existence of union co-operation • existence of team orientation

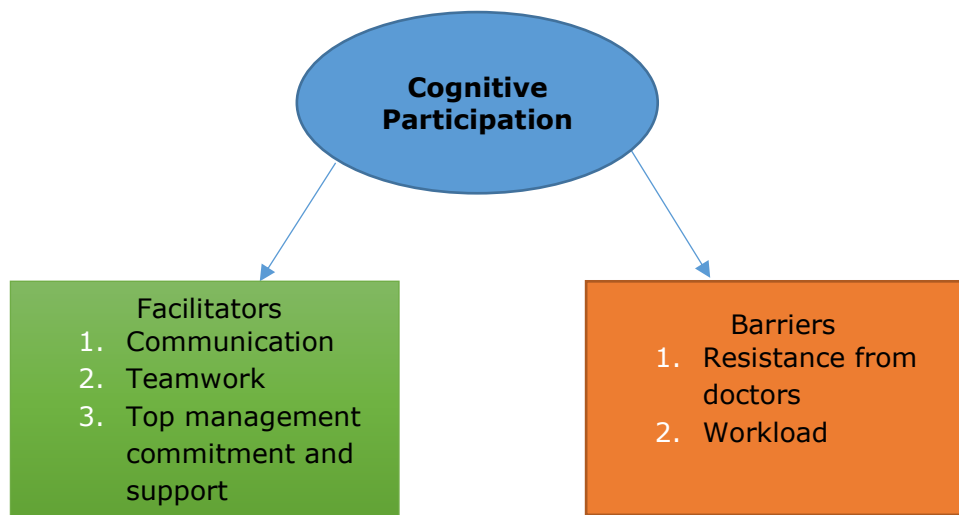
	<p>11. Patient involvement (the Patients' Feedback System to Improve Quality)</p> <p>executing annual patient surveys to determine the patients' needs</p> <ul style="list-style-type: none">• conducting annual surveys• Surveys that are distributed to the patients and hospital's staff to get feedback• Continuous patient evaluation surveys• patient satisfaction surveys
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Appendix 8

Example of charting from Case Study A

Case study A			
Theme			
Code	Lack of motivation, Low Wages and Incentives	Staff Shortages and Turnover	Cost of TQM implemenataion
Interviewee M1	the lack motivation and staff rewards	High rate of turnover, especially among nursing staff	In general, a TQM programme is costly because this cost is associated with consultants' fees training.

Appendix 9



Mapping the barriers and facilitators to TQM
implementation to NPT constructions