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Examining the Impact of Accreditation on a Primary Healthcare Organization in Qatar

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2016

Abstract

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by

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MHCM, California State University of Los Angeles, 2006

BS, Lebanese University Faculty of Science, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Although a modest body of literature exists on accreditation, little research was conducted on the impact of accreditation on primary healthcare organizations in the Middle East. This study assessed the changes resulting from the integration of Accreditation Canada International's accreditation program in a primary healthcare organization in the State of Qatar. The study also investigated how accreditation helped introduce organizational changes through promoting organizational learning as well as quality improvement initiatives. Pomey's *Dimension of Change* framework and questionnaire was used to measure the effect of Accreditation Canada International standards on the perceived quality performance and the progress towards organizational learning. The study explored the quality improvement initiatives resulting from the introduction of Accreditation Canada International accreditation program at the institutional level. It also aimed to identify the organizational learning resulting from application of accreditation standards across the various levels in the organization. Applying a quantitative design, a structured questionnaire was used to collect data from 500 staff. The study used T-test, Spearman's correlation coefficient, ANOVA to analyze the collected survey data. The results of this study provided much-needed insights on the possible changes that organizations might go through concerning quality improvement and organizational learning. The results would potentially support a smooth accreditation preparation process and ultimately contribute to positive social changes at the level of the safety and wellbeing of the people accessing the health services in the community.

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Dedication

This dissertation is dedicated to my family and friends. A special feeling of gratitude to my loving husband, Dr. Hoss Banna, for his never ending support and encouragement and for being there for me throughout the entire doctorate program, if it were not for him, I would have never embarked on this journey; to my girls Liana and Taline for being patient and understanding when I did not have enough time for them because of my studies, and whose smiles gave me positivity and assurance; to my awesome mother and aunt whose prayers have enlightened my way all along; to my father's spirit which has guided my path from the very start.

I also dedicate this dissertation to my beautiful brother and sisters and friends who have supported me throughout the process. I will always appreciate all they have done, especially their encouragement and belief in me.

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I thank my fellow PHCC colleagues for the amazing experience and stimulating discussions, for the sleepless nights we were working together before deadlines, and for all the fun we have had in the last four years. In particular, I am very grateful to Dr. Mohamad El Zoghbi for his assistance in the research design and the statistical analysis of data.

Last but not the least; I would like to thank my family: my great husband and lovely daughters for supporting me by all possible means since the very beginning of this journey.

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Chapter 1: Introduction to the Study

Introduction

Many countries have established national healthcare accreditation programs to be employed as tools for assessing the quality of care in the health services offered (Shaw, 2003). Despite the rapid expansion of accreditation programs all over the world, there is still some doubt around the actual value and relevance of accreditation. Morrissey (2002) found that little evidence existed on measuring the impact of accreditation on the quality of services as well as on the health of populations. The accreditation process consumes a great deal of time and money; the true value and cost-benefit analysis of the process still needs to be objectively assessed.

This study addressed concerns around the validity and actual scientific value of accreditation, through assessing the impact of the accreditation process on organizational change and learning, as well as on the quality of health services. The study intended to evaluate how the application of Accreditation Canada International (ACI) standards lead to changes in a primary healthcare organization in the Middle East.

Accreditation, as a tool for quality improvement, aims at benchmarking health services to quality standards and provokes enhancement initiatives that improve quality patient safety. The process affects improvements witnessed at the level of provision of care to the population, which eventually results in a healthier society, thus accreditation contributes to improving population health and creating positive social change.

The results of this study would provide much needed understanding on the changes prompted in an organization as it pursues accreditation. Insights from this study

should provide information on the possible changes that organizations experience concerning patient safety and quality improvements, thus supporting a smooth preparation process and ultimately contributing to positive changes in safety at the care delivery level and the wellbeing of the community.

Chapter 1 provides the background and purpose of the study, research questions and theoretical framework, assumptions, limitations, and significance of the study.

Background

Accreditation is generally perceived as an evaluation process through which organizations assess performance against objective sets of standards using a comprehensive review of practices and functions (Lewis, 2007). The process includes measuring performance against benchmarks and setting improvement initiatives to be in compliance with the required standards (Accreditation Canada, 2008). The accreditation status that organizations earn is recognized as an indicator of reliability and commitment to quality and safety.

Accreditation bodies commenced a little over half a century ago. Their origin goes back to the early 20th century, when the first accreditation agencies were established for the purpose of improving the quality of health and education services (Lewis, 2007). The Minimum Standard for Hospitals were the first quality standards developed and they were first introduced in 1917 in the United States by the American College of Surgeons (Roberts, Coale, & Redman, 1987; Alkhenizan, & Shaw, 2011).

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) first launched healthcare accreditation in 1951 (Roberts et al., 1987). JCAHO

accreditation expanded to Canada and Australia in the 1960s (Shaw, 2000). European countries joined the accreditation realm a decade later. By the mid-1990s, accreditation bodies had already spread worldwide (Shaw, 2000). In 2000, accreditation processes, through ACI, were introduced in the Middle East region, including the State of Qatar (Hojjati, & Vahdani, 2010). Accreditation is now considered an essential structure in the health system and is a crucial element for attaining credibility and trust in health organizations, even in less developed countries.

Background on Primary Health Care Corporation

The establishment of the first primary care services in the State of Qatar dates back to 1954, when a range of clinics were established in various areas of the country. The Ministry of Health determined the need for building the primary healthcare system in 1978 (Olayiwola, 2013; Supreme Council of Health, 2013). This came along with the famous 1978 Declaration of Alma-Ata, where World Health Organization (WHO) members, including Qatar, stated that primary healthcare should be at the foundation of the country's healthcare system (WHO, 1978).

The endeavor started with the launch of Qatar's primary healthcare services through nine HCs, covering different parts of the country. The HCs were to provide basic vital health and preventive and curative medical services. Since then, efforts were directed towards giving a more solid structure to the primary care system in the aim of making it the first health guard line in the country. The former Emir of the State of Qatar, issued the Emiri Decree No. (15), which entailed the establishment of the Primary Health Care Corporation (PHCC) as an independent corporation, allocating an individual

independent budget for the novel organization. Such an establishment is an agreement with the newly launched National Health Strategy objectives, which emphasize on the fact that primary healthcare is the basis for the health system in the State of Qatar (Olayiwola, 2013; Supreme Council of Health, 2013).

PHCC currently operates through 21 HCs distributed all over the country across three main geographical regions: Central, Western, and Northern. PHCC strives to provide care to all people residing in Qatar and aims at expanding its service locations to cover all regions in Qatar, including providing care access to people residing in remote areas. Twelve of the existing HCs are located in Doha city (the capital and main city of the country), while the rest of the centers are located in less populated areas in other parts of the country (Primary Health Care Corporation, n.d.) (see Appendix C). Qatar has aimed at expanding the primary care system into a broader network to cover all areas in the State of Qatar including the remote ones. PHCC's plan is to launch 19 additional HCs by the end of 2017.

PHCC provides primary healthcare to the community serving residents from all age groups, starting at the age of 2 months. Services range from prevention and health promotion programs to diagnosis and treatment of health conditions and diseases. The organization also provides long-term and constant support to patients and their families. PHCC services include family medicine, dentistry, opticians, pharmacy, common mental health problems, urgent care, and screening (see Appendix D). Specialty services are also provided in some HCs through specialty clinics like neonatal, antenatal, and chronic non-communicable disease clinics. In line with the National Health Strategy, PHCC is

working on expanding the scope of the specialty services and plans to launch new services as well like cancer screening, mental health, home care and urgent care (Supreme Council of Health, 2013).

Healthcare leaders in the country, including the minister of health and other delegates, have set high priorities for delivering high quality services and for enhancing the standards of healthcare, encouraging all health organizations to go for accreditation. The State of Qatar is now working on establishing its own national accreditation program, in consultation with ACI, after which accreditation will be mandatory for all health institutions in both the public and private sector (Supreme Council of Health, n.d).

Problem Statement

The problem involved the scarcity of evidence in the literature review about the true value of accreditation. Organizational changes, including organizational learning and quality improvement, do not represent a new phenomenon in accreditation, and changes provoked by accreditation were assessed in a number of studies (Al-Awa, De Wever, Melot, & Devreux, 2011; Lanteigne, 2009; Paccioni, Sicotte, & Champagne, 2008; Taylor, 2010; Pomey et al., 2010).

Although a modest body of literature exists on the impact of accreditation on healthcare organizations, little research was found to relate to primary healthcare organizations in the Middle East and that addressed changes instigated due to accreditation. As the first study on accreditation in primary care in the State of Qatar, the researcher aimed to set the blue print for future research to evaluate and explore the

resulting quality improvement and organization learning happening in organizations going through accreditation.

Accreditation helps introduce organizational changes through shaping major decisions done by management, and through affecting structures and systems ranging from governance to operational functions and support services. In this research, accreditation was considered as an intervention that aims at supporting organizational development and creation of knowledge (Contandriopoulos, Champagne, Denis, & Pineault, 1993). In line with this perspective, accreditation was considered a quality improvement tool that sets direction and gives structure to the organization.

This study was the first research in the State of Qatar to assess whether the integration of ACI's accreditation program brought about changes through evaluating the case of PHCC. The researcher reviewed how the implementation of accreditation led to improvements in quality of care and in organizational learning, as perceived by the employees. The specific problem addressed in this research involved the lack of understanding about the value of obtaining accreditation in terms of organizational learning and improvement in quality care.

Purpose of the Study

The purpose of this study was to quantitatively examine the changes resulting from the implementation of an accreditation program in a primary care organization by studying the impact of applying ACI standards on quality improvement, and organizational change and learning. Using Pomey's (2003) framework for measuring the cyclical relationship between the conditions favoring change and the characteristics of

change, this study tested the framework to measure the impact of the intervention of accreditation and the changes it brought at the institutional level at PHCC in the State of Qatar.The study explored the quality improvement and pertaining organizational changes, as well as identified the organizational learning resulting from the introduction of ACI accreditation program.

Research Questions and Hypotheses

The goal of the study was to investigate the problem of whether the introduction of accreditation programs brought about change in PHCC. The researcher investigated and measured the relationship between the accreditation process and quality improvement and organizational learning. The following were the two research questions and resulting null and alternative hypotheses from the study:

Research Question 1: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar bring quality improvement changes at the institutional level?

$H_0$1: The introduction of ACI accreditation program at PHCC in the State of Qatar does not bring quality improvement at the institutional level.

H_a1: The introduction of ACI accreditation program at PHCC in the State of Qatar brings quality improvement at the institutional level.

Research Question 2: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar foster organizational learning at the institutional level?

$H_0$2: The introduction of ACI accreditation program at PHCC in the State of Qatar does not foster organizational learning at the institutional level.

H_a2: The introduction of ACI accreditation program at PHCC in the State of Qatar does foster organizational learning at the institutional level.

This study was conducted by applying a descriptive correlational approach and by using a cross-sectional survey design to collect data from managers and staff involved in the accreditation process at PHCC. Since Weber's (2005) study validated Pomey's (2003) framework and instrument, this study tested the null and alternative hypotheses by employing the T-test, Spearman's correlation coefficient, and ANOVA to analyze the survey data.

Theoretical Base

Theoretical constructs of organizational learning and change guided this research. The concept of organizational learning was first presented in order to clarify the terminology and its significance in the context of the study.

Organizational learning is a change strategy through which all stakeholders in an organization contribute to the learning process (deBurca, 2000). According to deBurca (2000), organizational learning is influenced by the ability of the organization to set the right strategy, structure, and communication schemes. It is also affected by the social context through which the organization is thriving. Organizational learning as described by Boreham and Morgan (2004) takes place in teams: it is integrated throughout the organization and provokes changes in the structure, system as well as culture of the organization.

Several factors, both internal and external, encourage change; however, the ability to change is also a function of the organization's own characteristics such as age, size, standardization of processes, and other factors (Senge, 1990a). Most learning organizations are experienced in institutionalizing the capacity for change; organizations that have less capacity in this area, which are nevertheless trying to change, can be placed in a dangerous situation because they are trying to adapt without the necessary skills (Senge, 1990a).

Senge (1990b) described organizational learning as a group of people who enhance their capabilities to control the outcomes they want to see in the future. Senge states that organizations that are most successful are those that demonstrate significant capacity to constantly adapt to their dynamic environment and institutionalize this capability through their employees. As a result, change, learning, and becoming accustomed to changing conditions become an everyday habit, and as a result the organization develops into a learning organization (Senge, 1990a).

Conceptual Framework

Drawing on Pomey's (2003) theoretical framework on change, this research focused on understanding how the integration of the accreditation program contributed to or not to the acquisition of knowledge. Pomey's (2003) framework was used as the conceptual base since this framework linked accreditation to organizational learning. It specifically focused on understanding how the integration of the accreditation program contributed to the acquisition of knowledge and organizational learning (see Figure 1).

Pomey (2003) proposed this framework to measure the relationship between the conditions favoring change and the characteristics of change as the organization goes through accreditation. Using Pomey's (2003) framework and questionnaire, Weber (2005) measured the impact of accreditation in selected Canadian hospitals and the changes it brought at the institutional level. This study utilized the same approach and questionnaire to test Pomey's framework in the Middle East. The study related to the same model as it tested the framework in a primary care organization in the State of Qatar. Using the same questionnaire developed by Pomey (2003), as adapted from Shortell's (1992) and Quinn's (1984) instruments, this study built on Weber's (2005) since it tested the framework in a primary care setting rather than in hospitals, and in the Middle East region versus in Canada.

Nature of the Study

Quantitative research was the primary focus of this dissertation. Quantitative research is consistent with understanding in what way the introduction of accreditation provokes change in organizations, which was the principal emphasis of this dissertation. The techniques that were used to collect data consisted of an individual questionnaire and a review of internal documentation and measurements that were accessible considering that the researcher was the accreditation manager in the organization throughout the time of the study. The research was in the form of a study, with multiple levels of analysis. The units of analysis were individuals and the organization as a whole.

Quantitative data were collected using Pomey's (2003) questionnaire as an instrument. This was adapted from the author with permission (see Appendix E).

Information about the changes within PHCC, the accreditation process, the quality improvement initiatives, and safety programs were collected and evaluated. Accreditation documents and plans were studied as well and taken into consideration in the interpretation of data. Analysis of quantitative data was made using the statistical analysis software, SPSS.

Definition of Terms

Care pathway: the projected care planned throughout appropriate suitable time frame, proposed, written, and approved by a multidisciplinary team of healthcare professionals (National Leadership and Innovation Agency for Healthcare, 2005).

Cognitive capacity: the capacity to perform higher mental processes of reasoning, remembering, understanding, and problem solving (Bernstein et al., 2001).

Organizational change: a structured approach in an organization for ensuring that change happens and that changes are efficiently and effectively realized to achieve long lasting benefits (Amagoh, 2008).

Organizational culture: the fundamental prototype of shared values and expectations that identify the social and psychological environment of an organization. It is the manner employees perceive and act on issues and opportunities (McShane , andVon Glinow, 2012).

Organizational learning: an area of knowledge that investigates models and theories about the way an organization learns and adapts. Organizational learning is described as a group of people who are incessantly enhancing their capabilities to be able to control the outcomes they want to see in the future (Senge, 1990a).*Patient outcomes:*

the condition of a patient at the end of treatment or an illness development, comprising the extent of wellness, and the need for ongoing care, medicine support, or advising (Mosby, Inc., 2009).

Patient safety: a regulation in the healthcare field which adapts safety discipline approaches for the purpose of attaining a reliable healthcare system. Patient safety is also a characteristic of healthcare systems; it reduces the frequency and effect of, and amplifies reclamation from, adverse events.

Quality improvement: the combined and unceasing efforts of healthcare professionals, patients and their families, researchers, payers, planners, and educators to make the changes that will lead to better patient outcomes, better system performance, and better professional development (Batalden, Stevens, & Kizer, 2002; Robertson & Korchagina, 2012).

Self-assessment: a framework for evaluating an organization's processes and results against an objective set of accreditation standards (ACI, 2008a).

Social capital: the setups of relationships between people who live or work together in the same society, allowing the society to perform effectively (Smith, 2009).

Stakeholders: individuals who are directly or indirectly affected by an organization's pursuit of its goals. In this study, stakeholders included the HCs, the employees, patients and their families, government authorities, and accreditation bodies (Thomas & Poister, 2009).

Surplus capacity: the excess in capacity or having beyond the extent of what an organization actually needs (Capacity Utilization, n.d.).

Tracer methodology: a method of inquiry completed during the onsite survey to trace the path of patient care during their journey through the healthcare system and to reveal how consistently processes are followed from one service area to another and throughout the organization (ACI, 2013a).

Assumptions

The research was done based on assumptions, since some of the issues and factors were assumed to be true. The researcher assumed that the sample of PHCC staff and managers were representative of the population targeted by the study. The author assumed that change generated learning and vice versa through a continuous process in line with the cycle of ACI. As the study also depended on the subjective assessment of employees, the researcher assumed that employees' responses reflected the reality of the situation. Add to this, staffs' own perception was also a function of several factors like their own interpretation of the matters as well as other environmental and cultural factors. The study assumed that PHCC employees, who completed the questionnaire, were capable of fully understanding the concepts and the questions and were not biased in their judgment. It was assumed that their judgment as well was not affected by cultural, environmental, or lingual factors.

Using Pomey's (2003) model, the researcher assumed that the questionnaires did actually address the concepts used, such as organizational change, organizational learning, and quality improvement programs. Finally, the author assumed that changes in the organizational structure and management during accreditation did not affect the data collection of the study.

Limitations

Quantitative data is generally not associated with the presence of biases. Biases as a limitation to a study, usually originate from either respondents or researchers themselves; however the main respondent bias stems from the position on the topic of discussion held by the respondents (Babbie, 2000). Since this study explored the attitudes of staff towards the accreditation process, conclusions had to eventually be made. This could particularly be a limitation since the study to some extent examined staff's personal perceptions and attitudes. The degree to which assumptions were credible and genuine was dependent on the validity of staff conclusions.

The organizational culture of PHCC itself was considered a limitation; staff might tend to tell the bright side of the story and show the positives in the processes to show that they have actually worked towards improvement with accreditation, as requested by top management. They might also be concerned that their responses, if negative, would give a negative impression about their organization which top management would not approve.

However, since the questionnaires were administered by the manager of accreditation from the quality department, staff might tend to answer the questions in a manner that was favoured by the quality department, thus leading to social desirability bias. Although participants were randomly selected, and many of them never worked closely with the researcher; bias could arise from the fact that the manager of accreditation at PHCC was the researcher, thus staff might tend to be biased in their responses, giving positive feedback to give the accreditation manager what she would be

pleased to hear in terms of the progress and positive changes observed due to accreditation. In order to address these assumptions, a detailed letter was prepared to brief the respondents on the confidentiality of the study and that their input was valuable and their identity was secured from anyone other than the researcher herself.

Researcher bias could also conceivably transpire throughout the analysis of the results because the researcher was the accreditation manager, for whom it would be valuable and imperative to have results that were favor the accreditation process.

Another limitation was the possibility that misunderstandings might arise from the context, culture, and different interpretations of words and sentences especially that the study was conducted in English and for many of the respondents, English was a second language. Although simple, clear, and concrete questions were used to reduce misunderstanding, the staff's English language competency might have negatively contributed to staffs' understanding of the questions especially that the mix of staff at PHCC was characterized by a high level of heterogeneity, with staff coming from different cultures and countries. In addition to this, the survey did not take into account cultural or ethnic differences among staff which was another limitation.

Respondents from senior management might represent the corporation in the best possible light, and may tend to report good behavior and answer the questions in a manner that is viewed favorably by others and this would affect the reliability of the information.

The study was conducted at a time when the corporation had gone through a major transition period after the separation from Hamad Medical Corporation, which was

considered the oldest and strongest healthcare entity in the country and which constituted the biggest part of the public healthcare system. This might have affect staff responses as employees might not be happy with the many changes the organization was going through and the instability and uncertainty associated with that.

Also during the study, PHCC had already embarked on major change initiatives like the restructuring of its departments and services, outsourcing of services, and nationalization of some job titles. Such changes could also affect staff and their responses, comprising a threat to validity. The questionnaire that went to staff, however, was complemented with a letter which informed staff to keep in mind that the intention of the research was to assess changes instigated by accreditation.

Generalizability of the study could also be considered as a limitation since the research was limited to 21 health centers in one country. Results of the study may not be applicable to other types of healthcare organizations.

Finally, the methodology utilized Pomey's (2003) questionnaire to measure perceived change in the organization due to accreditation. The questionnaires were based on Pomey's (2003) framework and therefore this could represent another limitation since these questionnaires may not have accommodated all factors that contributed to organizational change and learning or to quality improvement initiatives.

Delimitations

Studying the impact of accreditation on healthcare organizations is an expansive endeavor that requires research in many areas. The scope of this study was limited to the following:

1. Twenty one primary HCs that provide primary care services only. This is markedly a limited representation of healthcare services.
2. Employees at all levels (front-line, middle managers, and top managers) represented staff input.

Despite the fact that the heterogeneity of the population was an evident attribute of the country and the organization in which the research was carried out, the study did not contemplate this aspect. The study did not take into account the competency of staff and the leadership styles in the organization, although these are two factors that might have influenced the effectiveness and the outcome of implementation of accreditation requirements.

Significance of the Study

This project was distinctive because it addressed an under-researched area of accreditation in the Middle East with a growing interest in studying accreditation in primary care settings. In addition to this, there was no extensive body of research on the impact of accreditation on primary care organizations in the Middle East, as accreditation was considered a relatively new endeavor to primary care settings in this region. What made this study even more unique is that it addressed the primary care sector in the State of Qatar and there was no evidence on any kind of research that was conducted for the same purpose in the country.

The results of this study provided much needed insights into the changes prompted in an organization as it prepares for accreditation. Insights from this study should provide a wealth of information on the possible changes that organizations might go through as they prepare for the first cycle of accreditation, thus supporting a smooth preparation process and ultimately contributing to positive changes at the level of the health and safety of the community.

Healthcare has long been a force for social change by addressing health needs and disparities in society. Quality Improvement in healthcare is a continuous and enduring effort to attain measurable improvements in the productivity, effectiveness, efficiency, performance, responsibility, and magnitudes of services and processes which realize equity and develop the health of the community (Riley et al., 2010). Accreditation, as a tool for quality improvement, aims at benchmarking health services to quality standards and induces enhancement initiatives that aim at improving care and enhancing patient safety and contributing to improving population health and creating a healthier society.

Summary

Accreditation is known to provoke changes in organizations through initiation of processes, integration of systems and, in some cases, through affecting changes on the organizational structure (Lanteigne, 2009). Organizational changes are not a new phenomenon in accreditation, and a number of studies have evaluated the effect of accreditation on organizations (Al-Awa et al., 2011; Lanteigne, 2009;; Paccioni et al., 2008; Pomey et al., 2010; Taylor, 2010). Although a modest body of literature exists on

accreditation, little research is done on the impact of accreditation on healthcare organizations in the Middle East.

This study assessed whether the integration of ACI program brought about changes in a primary healthcare organization in the State of Qatar. It investigated how preparation for accreditation helped introduce organizational changes through promoting organizational learning as well as quality improvement initiatives across the corporation (Lanteigne, 2009; Pichoir, 2005; Pomey, 2003).

The research had a quantitative design, which evaluated the changes instigated due to accreditation at the PHCC. Pomey's (2003) theoretical framework was used to study the changes initiated at the organization as perceived by the employees. The study was conducted after the organization had completed its first accreditation cycle with ACI.

In this research accreditation was considered as a mechanism that empowers organizational development and acquisition of learning at all levels of system components, ranging from governance to operations and services management to support services. This research also considered accreditation as a management tool that aims at quality improvement initiatives that can set new direction and enhancement strategies in the organization.

Before addressing the research questions of this study, it is important to study the evolution of accreditation programs, particularly of ACI, which is presented in the chapter that follows, emphasizing on the association between accreditation and quality of care in healthcare. Chapter 2 includes a presentation of the relevant body of literature that supports the problem under study. It basically assesses the current state of knowledge in

the field of inquiry, highlighting the existing connection between the findings of the research and the theoretical framework selected.

Chapter 3 outlines the details on the methodology used for the research, presenting information on the tools and methods used for collection of data. The chapter also provides a description on the validity and generalization of the research including construct validity, internal validity, and external validity. Chapter 4 portrays the results and the comparative breakdown of data collected in the study. The data collection, organization, and analysis are described. Chapter 5 provides an interpretation of the results of the study and the contribution and worth that the study brought to the literature, as well as conclusion and recommendations for further research.

Chapter 2: Literature Review

Introduction

Accreditation is acknowledged as a quality improvement tool that instigates improvement initiatives at the level of processes, structures, and outcomes (Lewis, 2007). There is little evidence, on the effectiveness of accreditation programs in a primary care setting in the Middle East. The purpose of this study was to measure the impact of ACI accreditation program on patient safety and organizational learning in a primary health care setting in the State of Qatar in the Middle East. The accreditation program was assessed in terms of its effect on quality improvement as well as on organizational change and learning.

Chapter 1 highlighted the history of accreditation and provided an overview of PHCC, as well as the theoretical base and the conceptual framework that guided the study. To further understand the purpose of this study, a comprehensive literature review is presented in this chapter with a synopsis of the literature search process.

An overview on healthcare accreditation is presented, followed by a discussion on the factors that influence accreditation and that contribute to the effectiveness of accreditation programs. Governmental influence and the financial burden on organizations pursuing accreditation are discussed in addition to an analysis on some performance measures that are used to evaluate accreditation programs.

Since accreditation is assessed in terms of the core criteria, quality improvement and organizational change, and learning, a description of the relationship that exists

between these two variables is presented. Accreditation and quality improvement is presented as well as a description of the impact of accreditation on organizational change and learning.

A full description of Pomey's (2003) framework, learning organizations models, as well as organizational culture change is presented. The questionnaires based on Pomey's framework that used in this study are discussed. The discussion closes with literature that supports the research methodology and an overview of the factors that contribute to the effectiveness of accreditation programs.

Literature Search Criteria `

A literature review pertaining to accreditation was conducted by a library online database resources EBSCO search (Academic Search Premier, CINAHL Plus with full text, Education Research Complete, PubMed, SocINDEX, CINAHL & MEDLINE Simultaneous Search, CINAHL Plus with Full Text, Nursing & Allied Health Source, and ProQuest dissertation databases) using the key words *accreditation*, *quality improvement, social change*, *organizational change*, *organizational lea*rning, and *healthcare*.

This exertion traced little research related to accreditation in a primary care setting in the Middle East (El-Jardali et al., 2014). Literature related to accreditation was found in relation to quality improvement (Lanteigne, 2009; Øvretveit & Gustafson, 2003; Pichoir, 2005; Pomey, 2003), organizational change and learning (Lanteigne, 2009; Pichoir, 2005), employee motivation (Al Tehewy, Bssiouni, Habil, & Okda, 2009), financial burden (Alkhenizan and Shaw, 2012; Greenfield et al., 2012), governmental

influence (Greenfield, Nugus, Travaglia, & Braithwaite, 2010); performance measures (Lemieux-Charles et al., 2000; Pomey, 2003; Pomey et al., 2010), effectiveness of accreditation programs (Greenfield & Braithwaite, 2009; El-Jardali et al., 2008; Flodgren, Pomey, Taber, & Eccles, 2011; Lanteigne, 2009; Lewis, 2007; Nouwens et al., 2011), and social change (Riley et al., 2010).

History of Accreditation in the Healthcare Field

Accreditation is considered a tool that is tailored to improve the quality, efficiency and effectiveness of a healthcare organization, through refining its structures, processes and outcomes (Lewis, 2007). Accreditation first evolved in response to the variations in the quality of education among institutions and it, then, spread to healthcare (Lewis, 2007). The intent was to achieve self-guidance for organizations through outlining standards of excellence and principles that would consistently yield better quality than when organizations do not use them.

Accreditation programs used standards that were developed in reference to regulations, subject matter expert advice, experience, research, and evidence based practice. The process itself was based on vertical representation of management units (Shaw, 2002). Accreditation now targets systematic changes to standardize and systemize processes, which sometimes requires the instigation of major changes at all levels in an organization.

From the time the process was introduced in the 1970s, accreditation globally reached the majority of countries to attain a recognized component of healthcare systems in over seventy countries (Greenfield & Braithwaite, 2008). Greenfield, Pawsey, and

Braithwaite (2012) found there are now more than 22 national healthcare accreditation bodies, and healthcare accreditation is applied in more than seventy countries all over the world. Regulation in the healthcare field developed and expanded due to several factors including the heavy focus on patient safety, extensive efforts to minimize avoidable harm to patients, the expansion of health services and the advancements in the healthcare professions (Braithwaite, Vining & Lazarus, 1994).

National regulation programs highlight the dependence of governments on accreditation to ensure public access to safe and quality healthcare. Such regulations provide governments with the lens to judge healthcare organizations on performance (Greenfield, Nugus, Travaglia, & Braithwaite, 2010). Over the years, many countries such as the United Kingdom and Canada established national accreditation programs as a tool for assessing the quality of care and health services. Some countries use accreditation as a tool for external control and to add more accountability on the health system; others use them as a means to add more professional development (Pomey, 2004). This growing interest in accreditation programs created a formal commitment from government authorities to make sure that health services in the country meet the predetermined standards, which form the backbone of accreditation programs. The ownership of accreditation by authorities, however, is making accreditation programs lose their true identity and actual value (Lanteign, 2009). Organizations feel that they are obliged to get accreditation in order to meet certain criteria set by the government in order to be eligible for funding; whereas, accreditation must be sought out to as a tool for continuous quality improvement.

Different Views on Accreditation

Braithwaite (2009) posed the question on why there was so little evidence published in the peer-reviewed literature about the effectiveness and value of accreditation programs. The author found that there was a substantial demand in the international database for accreditation research, as the empirical evidence base for accreditation is significantly immature. Although, there is a need to understand the contribution of the accreditation process, the review of the literature shows no scientific evidence on the actual impact of accreditation on organizations (Badwin, 1997; Baskind, Kordowicz & Chaplin, 2010; Braithwaite, 1997; Morrisey, 2002).

Despite the extensive use of accreditation in many countries and the predominant doctrine that accreditation was related to factors that support improved clinical care and organizational outcomes, only slight methodical research lead to observe its legitimacy as a predictor of healthcare performance (Braithwaite et al., 2010). Research indicates two contradictory paradoxes on accreditation; the first one stated that accreditation provided a positive contribution to quality improvement and development of organizations, while the other implied a rather neutral impact (Benn, 1998; Braithwaite et al., 2010; Montagu, 2003).

Advocates of accreditation programs stated that the process drove quality improvement in organizations, and that this improvement was observed over time. Opponents, on the other hand, argued that improvement initiatives were only marked when organizations are preparing for the survey, meaning no long lasting effect over time

(Greenfield, Pawsey, & Braithwaite, 2012). Montagu (2003) argued that accreditation programs stimulated the potential for improving the quality of care, if initiated with careful planning, sturdy government sponsorship, and organizational commitment.

In an earlier study conducted by Greenfield and Braithwaite in 2008, 3,000articles were identified; only 66 were labelled as peer-reviewed while others were annotations and discussion papers. A study of the selected articles revealed that only a few showed consistent findings. Such academic and peer-reviewed research was still required, as implied by Greenfield et al. (2012), since the authors did not contradict the findings in the earlier 2008 study of identifying inconsistent findings in regards to improvement initiatives in organizations resulting from accreditation. Accreditation was acknowledged as a significant cause for the improvement of quality and safety in healthcare organizations, a clear need still exists, however, for inspection of different characteristics of accreditation programs and publishing and dissemination of successive findings (Braithwaite, 2009).

According to Lanteigne (2009), continuous improvements in quality initiated by accreditation programs provoked organizations to constantly self-assess themselves against predetermined quality standards of excellence through external reviews and measurements. Accreditation was known to incite changes in organizations through initiation of processes, integration of systems and, in some cases, through affecting changes in the organizational structure (Lanteigne, 2009). Organizational changes are not a new phenomenon in accreditation; and a number of studies evaluated the effect of accreditation on organizations (Al-Awa et al., 2011; Lanteigne, 2009; Paccioni et al.,

2008; Pomey et al., 2010; Taylor, 2010). Organizations are challenged to meet the requirements of the standards, thus creating a need to embark on changes that affect various relational and strategic aspects in the organization, leading to a state of organizational development and learning. In what follows is a probe on organizational learning and organizational culture change concepts, as they were used to guide the theoretical base of this study.

Organizational Learning Models

A study of existing literature about organizational learning models shows a wealth of information that is mostly rooted in individual and organizational learning cycles (Boreham & Morgan, 2004; Fiol & Lyles, 1985; Marsick & Watkins, 2003; Senge, 1990). Organizational learning, as described by Boreham and Morgan (2004), takes place in teams, it is integrated throughout the organization and provokes changes in the structure of the organization, its system as well as its culture (p. 308). Organizational learning emerges from inconsistencies, disclosures, or challenges that trigger a response. Learning is also influenced by individuals' cognitive abilities and understanding of the situation or the incident (Marsick and Watkins, 2003). Boreham's and Morgan's (2004) organizational learning model identifies two important components for an effective organizational learning process (a) dialogue and (b) relational practices. Dialogue is defined as the ultimate means of communication using verbal and nonverbal messages that stimulate a desire in people to listen, and provoke a chance for open debate and addressing alternative interpretations. Relational practices are considered the social structure, which embraces the dialogue and guarantees its sustainability in an

environment that is susceptible to conflict (Boreham, & Morgan, 2004). The model stresses the necessity of emphasizing the adoption and spread of best practices and exhibiting effective dialogue.

Learning is not a distinctive behavioral characteristic or capability, learning in itself is a cognitive process that is centered on acquisition of knowledge and development of experience, and since all employees at all levels can contribute to a culture of sharing of information and knowledge; all employees can lead the organization to a culture of learning (Senge, 2006). For Senge (2007), learning is a vision that becomes real when leaders are capable of creating the sense of shared learning within the culture of the organization. The concept of the learning organization flourishes only when ratified by leaders who possess the right knowledge on learning

According to Fiol and Lyles (1985), there appears to be an agreement on the concept of organizational learning in several areas, two of which were assessed in this study: the relevance of environmental alignment and the presence of four contextual factors (organizational culture, strategy, structure, and environment). Disruption in the environment triggers organizational learning and an organization reactively aligns itself with its environment to ensure continuity and attainment of a competitive advantage. Organizations do this by learning, unlearning, and relearning based upon past behavior. The four contextual factors are created by learning and the factors themselves create and reinforce learning (Fiol & Lyles, 1985).

Organizational learning is especially important in healthcare due to the continuous and rapid changes in the healthcare industry. As stated by Carroll and Edmendson (2002),

leaders in healthcare aim at a vision of a learning culture that helps employees visualize the importance of organizational learning in realizing the organization's goals. A learning culture is especially important in a healthcare setting, where mistakes and medical errors could always be an opportunity for learning.

Organizational Culture Change in Healthcare

Organizational culture is rooted in several disciplines including anthropology, sociology, and management. There is an increasing interest in recent history in studying culture change in healthcare organizations in terms of its impact on organizational outcomes and performance (Zazzali, Alexander & Shortell, 2007).

Healthcare organizations that embrace certain characteristics like teamwork, communication, group affiliation do manifest broader adoption of quality improvement strategies and are able to develop information systems that deliver better patient care (Rundall, et al., 2002). Behavior and attitude of employees are also contributing factors that shape the organization's culture; for example, research has shown that whenever there was congruence between employees' own values and beliefs and the organization's culture, there was more positivity in employees' attitudes (Zachariadou1, Zannetos, & Pavlakis, 2013).

Managing organizational culture and organizational learning is more commonly used as part of health systems reforms as a means to improve quality. Organizations need guidance through strategic and operational change initiatives, that necessitates an understanding of organizational culture and change (Fernandez, 2007). Efforts geared towards change in organizational culture do not necessarily result in the same projected

outcomes as planned. Especially in the healthcare field, such attempts could lead to unfavorable consequences; for example professional values among healthcare providers have been in existence as a foundational element in the culture of healthcare organizations and are labelled as "resilient" enough to change. (Scott, et al., 2003a). Research and knowledge in culture change leads to a better understanding of quality improvement and management of organizational change and learning in health care organizations. Scott et al. (2003b) reviewed the quantitative instruments available and applicable to healthcare settings for measuring culture and culture change and provided through his literature review a comprehensive list of the instruments that healthcare researchers could refer to and use.

Healthcare leaders are increasingly measuring organizational culture change using quantitative metrics to assess the correlation existing between culture change and performance and quality of care (Shortell et al., 2001). According to Shortell (1995), implementation of quality improvement initiatives was associated with participative, flexible, risk-taking organizational culture. Shortell (1992) developed an organizational culture measurement instrument, the *Quality Improvement Implementation* Survey *(QIIS),* to study culture change in healthcare organizations. Shortell's instrument was based on Quinn's and Kimberly's cultural dimensions.

Quinn's and Kimberly's (1984) culture instrument was initially used to study the organizational culture across four dimensions; the organization's character, the organization's managers, the organization's cohesion, and the organization's emphasis (discussed in details under the *Culture Questionnaire* section). According to Quinn and

Kimberly (1984), there are four types of cultures that organizations could relate to; group (the culture reflects connection, teamwork, and cooperation), developmental (the culture is of adventurous and innovative nature), hierarchical (the culture reflects a bureaucratic nature), and rational (the culture depicts a state of competence and accomplishment) (see Appendix H). Pomey's instrument to test the *Dimension of Change* framework was based on Shortell's (1992) and Quinn's (1984) instruments. This study built on Pomey's research as it tested Pomey's framework in a primary care organization in the State of Qatar.

Pomey's Dimension of Change Framework

Pomey's framework is an important principle that supports the theoretical foundation of understanding organizational learning. Pomey (2003) proposed the *Dimension of Change* framework to measure the relationship existing between the conditions favoring change and the characteristics of change as the organization goes through the accreditation process. Pomey's framework and questionnaire were the result of an extensive assessment of current literature and focused on quality initiatives in healthcare and the triangulation of several change theories currently known and used in the field of management (Pomey, 2003). The questionnaires were built on Shortell's (1992) and Quinn's instruments on culture change. The framework was developed as part of a study Pomey conducted in France. The study assessed organizational changes provoked in a university hospital after the introduction in of accreditation.

According to Pomey (2003), certain conditions favor the emergence and diffusion of change. The framework contains two major components. The first component

addresses the conditions favoring the emergence of change and is divided into five sub-components: general environment, basic conditions, leadership and competences, strategies and design and understanding. In the second component, Pomey addresses the characteristics of change, which fall under four sub-components: the nature of change, design, action strategies, and stakes (see Figure 1). Each sub-component of these contains a number of elements that describe variables, which are tested and used by Weber (2005).

First Component of Pomey's Framework

General environment. This sub-component of the model addresses external environmental pressures in the healthcare field that could affect change. Research, medical technology, and the escalating costs along with the various means and mechanisms to control those costs, created a continuous need for change, and struggle for a successful organizational change (Borkowski, 2009).

Basic conditions. Pomey (2003) argued that for the organization's leaders to actually undertake a successful change, there are certain basic elements that should exist at the institutional level to facilitate the process. Pomey proposed four conditions considered basic for change: surplus capacity of legitimate participants, discretionary areas of autonomy, relational cognitive capacity of participants, and shared information. Evidently, the sharing of information and communication among different team players is a prerequisite, provided that participants possess the conceptual capability to induce and manage change. Discretion and autonomy lies at the basis of this concept given a certain level of dissatisfaction that creates an urge in people to make a change.

Design and understanding. Design and understanding delineate the importance of the cognitive abilities that participants possess. Pomey (2003) argued that involved employees should possess the capability of understanding the changes taking place and reflecting upon them. What encourages change is a state of dissatisfaction that inspires employees to embark on change initiatives like those provoked by accreditation (Pomey, 2003).

Leadership skills. Critical leadership competencies and characteristics essentially guide organizational development and change. Pomey (2003) argued that four conditions should exist in effective leaders: commitment, assigning responsibilities to right stakeholder, initiating tasks and taking risks, and always emphasizing values.

Strategies. This component of the model closely ties with the leadership and competencies part and is comprised of the following strategies: diffusion; learning; and adhesion/ buy-in. According to Pomey (2003), the strategy of diffusion comprises an essential component as it provokes enthusiasm and awareness on quality assurance and contributes significantly towards diffusion and sharing of information and knowledge.

Conception/Comprehension. Comprehension reflects employees' ability to understand the elements of change and do the necessary to accept, acquire and implement new strategies and initiatives. As implied in Pomey's (2003) framework, staff would be able to understand and embrace the change through the acquisition and dispersion of knowledge and through demonstrating reflective comprehension on the impact of new processes and practices (Pomey, 2003).

Second Component of Pomey's Framework

Nature of change. As presented by Pomey (2003), the nature of change is defined by the following: the methods (intentional or unintentional), the target (conceptual or concrete), the dispersion (localized or generalized), the pace (slow or rapid), the rhythm (uniform, variable or on the spot), the duration (short or long), the trajectory (complete, blocked or regressive), the phase (initiation, growth, maturation, completion or decline). Some change might be planned for and thus labeled as intentional; other change might be spontaneous and not planned. The employees involved themselves, their knowledge and awareness, the culture, environmental conditions, and the available resources are all factors that affect the pace, duration and magnitude of change.

Conception. Under conception, Pomey (2003) identified two types of categories, which are actually a reverse of each other; inductive style and deductive style. The deductive one is a top-down approach and the inductive one is a bottom-up approach. There is no doubt that the conception style is significantly influenced by leadership, organizational culture and context. (Lanteigne, 2009) found accreditation falls under one of the two styles, it fits better in the deductive one, leaders basically initiate change through accreditation decisions in the organization, which adds strength to this conclusion due to the nature of the healthcare environment.

Action strategies. Pomey (2003) stated that the action strategies revolve around three types: internal (cooperation or interference); external (manipulative or authoritarian); and means of accompaniment (incentive, influence, authority or

commitment). Action strategies describe the culture whether it is cooperative, authoritative, manipulative, or authoritarian. When organizations work on accreditation, they embark on major action strategies for the purpose of changing the current situation and bringing it to higher quality standards, as per the accrediting organization requirements. The nature of action strategies is usually influenced by the conception and the nature of change. Action strategies give an indication on the kind of culture prevailing in the organization, for example, whether there is high commitment among employees towards cooperation, and whether there is encouragement towards teamwork.

Stakes. Stakes relate to strategic, organizational or relational transformations. Knowledge acquired through accreditation produces a strategic impact on the organization (Pomey, 2003). Organizational transformation consists of four components: the symbolical, physical and organizational structure; the processes; the participants; and trajectory / performance.

Some organizations, and in agreement with accreditation requirements, embark on making major structural changes that affect processes, functions, responsibilities, staffing, performance, policies and regulations. A good example would be inaugurating changes on the organizational structure chart like creating new departments or functions. New processes might need to be initiated under the new departments and new assignments of responsibilities and accountabilities. The newly added positions and the expansions to the organizational structure may also require hiring new staff and participants, thus, creating new roles. The organization leaders also need to develop new means and tools for measuring and tracking the trajectory of performance in response to

accreditation requirements, which stresses the use of instruments and performance measures. Such changes all contribute to organizational transformation at the institutional level.

All things considered, Pomey's (2003) Dimension of Change framework and model provides a thorough analysis on the emergence and diffusion of change and its components do take into account environmental factors that are specific to the organization. Thus, the model is ideal for this study since the implementation of the accreditation program varies among organizations, as it is shaped by the specific characteristics of the organization. The model also highlights the characteristics of change allowing readers and researchers to formulate a multidimensional understanding of the situation.

Accreditation and Trust in the Healthcare System

Research shows that accreditation enhances the organizations' reputation among consumers and enhances end-users consciousness and perception of quality care (El-Jardali et al., 2008; Greenfield & Braithwaite, 2008). The main goal of regulation in healthcare is to protect the safety of the public; especially in the healthcare field, where there is always the possibility of producing harm to people. What the public seeks is a good relationship of trust in the healthcare system by assuming safety and competence and readily delegating the job of quality control to accreditation agencies (Lewis, 2007).

The public has a strong interest in regulation through accreditation. There are two evident reasons behind that interest: when the rate of unsafe practices is high and when consumers (patients) themselves cannot make smart judgments of quality. People do not

have to independently be able to assess the safety of the care they receive or the qualifications of the person performing a diagnosis or a procedure (World Health Organization [WHO], 2003).

Accreditation serves as a powerful device for protecting the public through providing access to quality and safe healthcare (Jovanovic, 2005). Despite the variation in accessibility to health and social information among people, the public can always benefit from the assurance of the reliability of the information they receive about healthcare organizations (Jovanovic, 2005). When organizations are accredited, a reliable level of performance should be guaranteed to the public; thus, accreditation indirectly informs people's decisions about what services and/or organizations they choose (Lewis, 2007). Access to public information on the performance of organizations showed a positive effect on successful accreditation programs. Regardless of whether the accreditation report indicates positive or negative messages, research provided evidence on the benefits of disclosing accreditation reports as sharing of accreditation evaluation results encourages public accountability and the quality of care (Ito & Sugawara, 2005).

Accreditation and Quality Improvement

Interest in the application of continuous quality management improvements has increased in recent years. Quality improvement in healthcare was adopted by the majority of providers where they built upon traditional quality assurance methods by focusing on the *process* rather than the *individual* (Agency for Health Care Policy and Research, 1997; Gitlow & Melby, 1991). Quality improvement, when measured in accreditation programs, is assessed by the level of compliance with the program's standards and

criteria. Research shows a positive correlation between compliance with accreditation standards, quality improvement, and positive organizational changes as well as organizational learning (Lanteigne, 2011; Pomey, 2003). Pomey (2003) argued that the best approach to working on accreditation is for organizations to look at the process as a quality improvement tool and to integrate that into the culture of the organization. Such approach would help organizations establish better results in spite of the resistance perceived from medical staff.

Studies with Positive Correlation

Several studies demonstrated that accreditation programs influence the implementation of quality initiatives. This correlation between accreditation and quality was demonstrated in a number of studies (Baker, 1997; Beaumont, 2002; Francis & Rheaume, 2001; Maguerez et al., 2001; Pomey et al., 2010, Lanteigne, 2009).

There is strong evidence that shows that implementing accreditation helps healthcare facilities improve their service delivery model since the changes introduced to the survey process are indirectly forcing healthcare organizations to make quality improvement a way of life. Preparing for the accreditation survey is an example of the application of Total Quality Management (TQM) technique to create an organizational culture committed to the continuous improvement of skills, teamwork, processes, product and service quality, and customer satisfaction (Kreitner, 2004). In other words, the service delivery model is improved via employees' commitment to systematic continuous improvement needs that become an everyday matter in the way the hospital employees conduct daily operations (Kreitner, 2004).

Many institutional leaders argue that the time and money invested in accreditation is amply justified because the approach allows revising processes and management systems as well as recognizing better results (Benn, 1998). A study conducted in Canada by Baker (1997) showed that 80% of respondents claimed adoption of a quality program and 64% of those stated that they developed the quality program during the 3 years preceding accreditation (Baker, 1997). Further research showed a direct relationship between adopting quality programs and initiatives and working on accreditation. For example, 93% of organizations working on accreditation have embarked on quality improvement processes and initiatives (Beaumont, 2002).

Accreditation plays important role in improving quality in many aspects. For example, it can contribute to the drafting and dissemination of policies and procedures, to the development of quality improvement programs, and to encouragement of ownership in quality initiatives through the requirements imposed by the accreditation standards (Pomey, 2003).

Salmon et al. (2003) conducted research that lasted for 2 years in South Africa evaluating the ability to meet accreditation standards during the implementation of the Council for Health Services Accreditation of Southern Africa (COHSASA) accreditation program. Twenty hospitals were randomly selected; ten of those selected hospitals worked on accreditation with the COHSASA program. Results showed that the ten hospitals working on accreditation showed an increase in compliance with quality standards from 48 to 78%, while the other hospitals had a rate of 43 % (Salmon et al., 2003).

Lanteign's (2009) research evaluated whether the integration of Accreditation Canada accreditation program caused organizational change and learning. The study was conducted in two health organizations, the Health Authority of Anguilla (HAA) hospital in Canada and the Ca 'Foncella Opetale Treviso (CFOT) hospital in Italy. The research had three levels of analyses for which qualitative and quantitative data were collected. Questionnaires were administered to individual team members, semi-structured interviews with team leaders and quality coordinators were conducted, literature review and several periodic measurements of the level of compliance with accreditation standards were used as part of the data collection. Results of the study indicated that organizations made strategic changes; they improved their systems and management practices as well as their internal and external communications. There was also valuable learning by individuals, teams and the organizations as a whole. The learning was identified in the quality improvement programs, customer centered approach, risk management, professional ethics, participatory management and evaluation of services.

Pomey's et al. (2010) study evaluated how the accreditation process helped introduce organizational changes in five Canadian health care organizations (HCOs). The research was an embedded multiple case study design that analyzed organizational characteristics and recognized changes associated with the accreditation process. Results of the study showed enhancements in the quality and safety of care. The authors found that while accreditation itself was not essentially the factor that triggered the change, the accreditation process was a highly effective tool in introducing continuous quality improvement programs to newly accredited or organizations that have not yet attained

accreditation. Accreditation was also found to be the drive for creating new leadership for quality improvement initiatives.

Francois and Rheaume (2001) drew a distinction between the developments of quality systems in healthcare institutions in Quebec. They identified two distinct quality systems; one kind was steered by health professionals and the other kind was provoked by accreditation bodies. The two quality systems differed in structure and operation; accreditation provoked a more structured system that incurred the involvement of all employees and a culture that was characterized by flexibility, cooperation and achievement.

In France, Maguerez (2001) tracked the development of quality programs in 54 hospitals. In this study, hospitals interested in quality programs were invited by the Ministry of Health to submit continuous quality improvement (CQI) projects. The Agence nationale d'accréditation et d'évaluation en santé (ANAES) was commissioned to monitor and evaluate the projects. Two invitations in 1995 and 1996 resulted in 483 proposals. Of these, 60 projects were selected and received financial support through ANAES. Hospitals, in a proportion of 61% for 1995 and 41% for 1996, have achieved their goals at the time of evaluation. ANAES initiative to acquaint French hospitals with CQI proved successful. The factors for the success as well as the possible hurdles were identified and that paved the way for the preparation of the national accreditation, which was underway at that time.

According to a literature review conducted by Alkhenizan and Shaw (2011), a good body of research showed evidence of the positive effect of accreditation programs

on clinical outcomes like Acute Myocardial Infarction (AMI), trauma, ambulatory surgical care, infection control and pain management. According to the authors, health professionals and organizations should be encouraged to pursue accreditation since accreditation has proven to be a prompting tool that supports the quality of health services (Alkhenizan & Shaw, 2011).

Studies with Negative Correlation

On the other hand, a study conducted by Lozeau (1996) considered the accreditation process as a ritual with no solid anchor in the organizational culture. In a second case study, Lozeau (1999) argued that accreditation management activities and plans usually resulted in passive resistance from both administrative and clinical staff. Lozeau found that despite the growing popularity of accreditation programs, healthcare work environments were still not conducive enough to implement quality improvement programs; and organizations usually faked accreditation bodies during the onsite survey by pretending that they have quality initiatives set in place in response to accreditation standards and requirements.

A study conducted by Sack et al. (2011) brought up some doubt on the relevance of accreditation to quality initiatives that tackled customer satisfaction. Organization leaders obtain accreditation for their compliance with standards and the focus is usually on the patient's journey or specifically the care pathway of patients. The primary postulation around this matter is that once the structure and processes are enhanced, this automatically results in improved processes around patient care and thus in improved customer satisfaction. While accreditation is now broadly recognized as a vital instrument

to advance quality in healthcare, the results of the study show that successful accreditation is not associated with better quality of care as indicated by the judgment of the patients (Sack et al., 2011).

Effectiveness of Accreditation Programs

One major feature of accreditation programs, which gave the programs their sustainability attribute over the years, is their adaptability to induce changes in the healthcare environment by continuously reflecting on evidence-based research and the feedback received from stakeholders (Greenfield & Braithwaite, 2009). Research showed that healthcare organizations enhanced their capability to meet the requirements of accreditation programs. A study conducted by Snyder and Anderson (2005) in the United States showed that improved compliance of healthcare organizations with the requirements of accreditation programs is the most concrete indication on their effectiveness. There were always apprehensions on the means to augment the effectiveness and efficiency of accreditation programs while amplifying their anticipated consequences on organizations. Organization leaders take accreditation very seriously and initiate processes aimed at improving services to comply with accreditation standards. In addition, the lines of communication and advice offered by accrediting bodies for organizations to improve quality triggers lasting improvements and changes on systems and processes (Touati & Pomey, 2009). According to the literature review conducted by Greenfield et al. (2011), healthcare professionals were found to be proponents of accreditation and considered the process as an effective quality improvement tool that supported transparency and team work. Accreditation is a tool to

improve the quality, efficiency, and effectiveness in an organization and that includes looking at structures, processes and outcomes and provoking improvement initiatives when needed (El-Jardali et al., 2008; Flodgren, Pomey, Taber, & Eccles, 2011; Lanteigne, 2009).

Performance Measures

A number of studies showed that general accreditation programs considerably enhance patient outcomes and the quality of care of the clinical conditions; however, Greenfield and Braithwait (2008) found there was no consistency in the findings analyzed between quality improvement and patient safety and accreditation, the inconsistency seemed to be dependent on the organization and the specific outcome(s) measured. In addition to this assessment of accreditation programs showed different values and results; in some instances, there was a positive correlation between constructive outcomes and accreditation and in other instances, the results were questioned (Greenfield & Braithwait, 2008).

Seven performance measures were tracked in seven hundred forty-two hospitals in the United States; and analysis of data against JCAHO accreditation scores did not show correlation between the Joint Commission measures and the outcome measures (Griffith, Knutzen, & Alexander, 2002). There was also a feeble relationship between accreditation and quality of clinical care indicators in a large data analysis of two hundred and sixteen state psychiatric hospitals in the United States (Hadley & McGurrin, 1988).

Along these lines, there is evidence that shows accreditation programs as a powerful tool for improving organizational and clinical performance; however, this

evidence is not uniform across all studies; while some research confirms it, other contradicts it (Greenfield et al., 2012). Even the perspective of health professionals differ, some were positive while others were not. For example, opponents of accreditation programs described the process as a rigid reporting practice in which outcomes on patient safety and quality are questioned (Baskind et al., 2010).

Credibility of Accreditation Surveys

Recent research raises doubt rather than merit on the reliability of the onsite visit surveying process. Reliability of surveying was questioned; and it was shown dependent on the accreditation program itself, staff involvement in addition to organizational and individual elements that were shown to affect trustworthiness (Greenfield et al., 2012).

Although in the past, some health care organizations adopted quick "fix-it" solutions to prepare for surveys, this approach is no longer acceptable. Healthcare organizations need to sustain continuous survey readiness by having a state of continuous quality improvement (Young, 2004). Healthcare organizations need to promote this mindset among staff and help them get ready for the new practice (Katzfey, 2004).

For an accreditation survey, a healthcare organization should spend a few months of preparation time before its survey date (Bryant, 2004). This span of preparation gives the organization enough time to evaluate the standards cautiously, complete an organizational self-assessment of the compliance with the standards, expand new policies or processes, and take measures to improve in certain areas. Also, this time allows organizations to conduct staff training such as conducting a mock survey (Bryant, 2004).

The stamp of accreditation does not necessarily mean considerable improvements occurred in the quality of care and organizational learning. This study aimed to assess this argument specifically: whether the attainment of accreditation really provokes enhancements in quality of care and organizational learning.

Accreditation and Organizational Change

Organizational learning is a process of increasing the knowledge and understanding and, thus, improving action and manifesting better outcomes (Carroll & Edmondson, 2002). This process of learning includes both action and reflection, that is "doing and thinking, performing and conversing" (Carroll & Edmondson, p. 51). In healthcare, organizational learning could be perceived as the spreading of knowledge by skillfully practicing new routines, ranging from simple practices like admitting patients, keeping hygiene levels up, auditing medical records, to performing complicated surgeries. It is true that mastering such routines is very vital; however, organizational learning should not / could not stop there. Standardization of routine practices is very important, but this should be coupled with continuous encouragement from management for exploring new opportunities and means of doing things better and promoting to higher standards of care (Carroll & Edmondson, 2002).

A study conducted by Beaumont (2002) demonstrated that accreditation brings about change in clinical processes and communication. Pomey (2003) argued that accreditation leads to changes in organizational dynamics. Organizations that were involved in the study also showed that they succeeded in developing a culture of knowledge exchange and sharing of information. Moreover, staff, who occupied lower

positions in the hierarchy of the organization structure, seemed to benefit more than staff in higher positions (Pomey, 2003).

In a qualitative study conducted in 2004 in Canada, results showed that accreditation positively affected participating organizations. Five organizations that had participated in accreditation were included in the study and seventy employees were interviewed. Responses showed that these organizations greatly benefited from the accreditation process. Staff stated that they developed certain skills and improved their abilities; they were also confident that services provided improved as well as a result of implementation of accreditation standards (Pomey et al., 2004).

The number of years that organizations go through accreditation does also affect the outcomes perceived and the extent of the improvements occurring. The first cycle of accreditation is basically considered a learning experience through which organizations acquire more knowledge on the standards and how to be in compliance with the requirements. Organizations were observed to benefit most after receiving notes and recommendations from surveyors following the initial accreditation cycle. After the third accreditation cycle, organizations find being in conformity with the standards does not bring in any challenge since they tend to feel that accreditation standards are built in and integrated into existing processes (Pomey et al., 2010).

Another study conducted in France (Pomey et al., 2004) showed that the self-assessment phase of the accreditation process did help augment social capital, improved social relations, and helped create social links that encouraged staff to work in teams. Thus, accreditation encourages the involvement of all groups and classes of employees,

and creates suitable conditions for quality improvement to run into play in the organization.

Accreditation also provokes changes in certain processes and practices in an organization. An example on this practice of data collection on quality issues and metrics, which is fortified through accreditation takes more of a structured and systematic aspect due to adherence accreditation requirements (Pomey et al., 2010). According to a study conducted by Lemieux-Charles et al. (2000), such data was occasionally collected in the past. The inclusion of indicators in the accreditation standards shifted organization leader'' focus into measuring and collecting data relating to quality indicators, thus, provoking a culture of monitoring and measuring performance (Pomey, 2003; Pomey et al., 2010).

Accreditation can be considered as an intervention (Condantriopuolos, 1993; Beaumont, 2002), which aims at development and creation of knowledge in organizations (Scrivens, 1997). In this context, accreditation is considered as a management tool that provokes change in the same sense that a quality program or a new strategic plan would bring about changes (Denis et al., 2000). Establishment of an accreditation program in an organization is equivalent to adopting a management tool that aims at both the acquisition of knowledge and the enhancement of the quality of services. In this sense, this new *tool of change* should fit into the organizational change framework that is the factors of this change for example, the resources required as well as the changes provoked all have impact on the progress and sustainability of the change (Lozeau et al., 2002).

Employees' skills and knowledge are usually amplified through practices that aim organizational learning, provoking a suitable climate for cooperation, team work and trust among colleagues (Carroll & Edmondson, 2002). Organizational learning is robustly recognized by accreditation programs and is evident in accreditation standards, which address criteria that consider organizational learning practices as one of its main requirements (ACI, 2009, 2013). Additionally, accreditation showed a remarkable means to boosting communication within organizations, leading to more sharing of knowledge and information, thus, giving accreditation the attribute of provoking organizational learning.

Accreditation stimulates the sharing of information and experiences among different organizations. An example is the transfer of knowledge that happens through the surveyors themselves when they do assessments on the organization. Through this assessment, surveyors bring back to their organizations new practices they learned through the organizations they surveyed. This provides a major motivator behind healthcare executives' interest in choosing the pathway of surveying.

The phenomenon of organizational learning demonstrates the importance of socialization in the process of acquiring new skills. This socialization is part of the context of accreditation programs especially that of ACI since the foundational structure of the program is based on the principles of continuous improvement of quality. As a matter of fact, Accreditation Canada established processes that made it possible to directly link the model of knowledge creation in the stages of the accreditation cycle

(Nonaka, 1994). As this study was conducted in a primary care setting, a literature review was conducted on accreditation specifically in a primary care setting.

Accreditation in Primary Care

Accreditation systems originally developed to set standards and enhance the quality of care in acute care settings. With the expansion of primary care and the heavy emphasis placed on this sector of the healthcare industry, accreditation organizations are putting more focus on quality and means to improve on services in primary care organizations. As a matter of fact, efforts in Canada were geared to develop primary care-specific accreditation standards that address areas that are solely primary care and that are not applicable in a hospital setting (O'Beirne et al., 2012).

The World Health Organization in 1992 proclaimed that primary health care, includes the following four key components: health promotion, disease prevention, curative medicine and rehabilitation; however, the mentioned elements are understood in different ways in different healthcare systems (World Health Organization [WHO], 1992). Since there are no specific functions that are readily identified under primary care and there is no consistent structure for this part of the health system, accreditation systems attempt to develop standards around existing organizations, like community hospitals and practices of family physicians (Scrivens & Blaylock, 1997).

The expansion and success of acute- care accreditation systems is, in big part, due to the harmony and agreement observed across the many professions and functions within a hospital. There is no such consensus in primary and community care services, meaning

that when accreditation standards are developed for a primary care organization, implied variation in the organization of services and structure has to be recognized (Fry, 1990).

Quality management in primary care was well established in countries such as Australia, New Zealand, the United Kingdom, and the United States. Canada has also taken the lead in pursuing primary care focused quality improvement initiatives as well (Hutchison, 2010). Levitt and Hitts offers suggestions on practice management and clinical indicators for improving quality in primary care (2010).

A study of the effectiveness of quality-improvement in improving management of primary care practices was conducted in Europe using the *European Practice Assessment* program through providing feedback and outreach visits to primary care practices for the purpose of facilitating quality (Szecsenyi et al., 2011). The *European Practice Assessment* program of accreditation was a main component, aimed at assessing and improving quality and safety in primary care management against pre-determined quality standards. Szecsenyi's et al. (2011) results showed that primary care practices that completed the *European Practice Assessment* showed that the use of organizational standards lead to improvements in practice management.

El-Jardali et al. (2014) assessed the impact of accreditation on quality of care as perceived by primary health care centers staff members and directors through using a mixed research methodology studying how accreditation affected staff and patient satisfaction. Twenty-five HCs were included in the study that was conducted several months after the accreditation survey. A mixed research methodology was used to assess the perception of employees and directors towards accreditation. The results emphasized

on the benefits of documentation, reinforcement of quality standards and improvements in staff and patient satisfaction (El-Jardali et al., 2014).

According to the findings of a study conducted by Saleh et al. (2015), it was shown that there were gaps in the evidence on quality in primary health care in the Eastern Mediterranean Region. Evaluation of the quality of care results showed that the process dimension of quality, precisely clinical practice and patient–provider relationship, is an area that needs improvement. On the other hand, interventions aiming at improved quality had satisfactory and effective outcomes in the area of clinical practice; that is when processes were evaluated, the quality was low, whereas assessment of outcomes showed positive results.

On the other hand, a primary care - focused research was performed in 2000 to identify the strengths and challenges of having an accreditation program running in a group of primary health care facilities in Egypt. The study compared the efficiency of the outputs (indicators) observed in accredited facilities versus non- accredited ones. Results revealed no much difference in compliance with accreditation standards between health services that went for accreditation (81% compliance rate) and their counterparts that did not (79 % compliance rate). Indicators showed no such divergence in efficiency as well in the areas of immunization, maternal care services, and family planning (Abdel-Razik et al., 2012). The practice of accreditation programs in primary care should be further developed and assessed. Nouwens et al., (2011) argued that it is imperative to attain more information about the effectiveness and efficiency of the practice of accreditation

programs in primary care in order to be able to assess if participation in the program is worthwhile or not.

Also Saleh et al. (2014) pointed out the concern of seeing improvements at the level of patient access to safe care. According to Saleh et al. (2014) health care policymakers and managers should consider accreditation as a beginning rather than an end to their pursuit for quality. Improvements in the structures and processes in a healthcare organization have marginal value if these improvements do not lead to decreased disparities in access to quality care, and not merely access to care.

This study aimed at filling this gap in the literature by assessing the implications of adopting accreditation in primary health care organizations. The following section draws upon the relationship existing between governmental influence and the financial burden versus the values of accreditation, which were examined in this study- quality improvement and organization learning**.**

Governmental Influence and Financial Constraints

Pressure administered by the government on the health care system for the purpose of increasing accountability for financial consequences and quality improvement is expected to increase with time as the rate of underinsured and uninsured increases (Milstein, 2009). This will also be evident in the State of Qatar with the launch of the new national accreditation program. This pressure will provoke major changes on how care is coordinated among different disciplines for the purpose of reducing medical errors and on how much attention healthcare organizations put into quality improvement initiatives that help improve quality and reduce costs. Cost reduction along with

continuous quality improvements are two major aspects that are accentuated in most accreditation standards; for example one of ACI's eight quality dimensions is efficiency and it is linked to quite a number of the criteria in all sections of standards (ACI, 2013a, 2013c). Policy makers and authorities significantly influence health systems, the worldwide move towards mandatory accreditation is actually supported by both political and administrative bodies (Lanteign, 2009). In the State of Qatar, the Minister of Health is an advocate for the launch of the country's national accreditation system. Once Qatar's national accreditation system becomes effective, accreditation will become mandatory for all health institutions in the country. There are no financial incentives given in the State of Qatar to organizations participating in accreditation; however, there is substantial financial support from the government for public organizations, whether going for accreditation or not (Supreme Council of Health, n.d).

Government support for accreditation is apparent in many countries all over the world like Canada, the United Kingdom, and the United States. As a matter of fact, more than seventy countries participate in The International Society for Quality in Health Care (ISQua) accreditation related initiatives (Shaw, 2003). In the United States, Federal, State, and local laws govern all types of health system organizations. Forty-eight States in the U.S. accepted the Joint Commission on Accreditation of Health Care Organizations (JCAHO) as the jurisdictional accredited quality control organization in the health care industry (JCAHO, 2013). JCAHO vigorously examines State legislative and regulatory activities for the purpose of identifying added opportunities for state reliance on JCAHO's accreditation. Thus, accreditation by JCAHO is recognized and called for by

most states; resulting in JCAHO having a powerful effect on health system organizations in the US (Bryant, 2004). Accreditation is also valued by the private sector and is particularly evident when insurance companies pose attaining the accreditation license as a condition for providing services to its members. Some insurance companies like Aramco in Saudi Arabia pay extra money as a reimbursement for services rendered in accredited organizations (Lantgein, 2009).

Conversely, the accreditation process is the subject of criticism and some even question the real value that organizations gain from accreditation. In the context of cost reduction, for example, Badwin (1998) criticizes the extensive and costly preparations for accreditation during the preparatory phase and raises doubts on the actual benefit brought to organizations (Badwin, 1998). Morrissey (2002) also presents a criticism on the costs associated with accreditation and has reservations around the objectivity of the standards and the competence of surveyors (Morrissey, 2002).

Most of the accreditation services provided are done on a pay-for-fee basis; organizations pay for accreditation prior to the services provided, or just after, as per the contractual agreement between the accrediting body and the organization (Shaw, 2004). With all the big constraints and pressure on resources in the healthcare field along with the willingness to take the burden of the direct and indirect costs associated with accreditation, adds more emphasis on the importance and value that health institutions are placing nowadays on accreditation. Pressure brought forth by government and financial constraints, however, might jeopardize the true value of accreditation, organizations

might seek accreditation not to enhance quality and organizational learning but to be at peace with the government and to have good financial return.

Especially in developing countries, there is the deliberation on the financial burden that accreditation programs bring on organizations versus the reliability of perceived outcomes. The financial burden that accreditation brings on the organization is highlighted in a study that was conducted by Greenfield et al. (2012). There is, however, the debate that this added cost should be considered as an investment in patient safety and quality (Greenfield et al., 2012). Accreditation is also sometimes perceived as a source of financial gain and legitimacy for healthcare organizations and they are allowed to raise the cost of their services, make contracts with third party organizations, and are given the privilege of serving some communities on the condition that they receive the accreditation award.

Accreditation Canada International

The origin of ACI roots back to 1917 with the development of a hospital standardization program by the American College of Surgeons of which Canada was an active member (ACI, 2008, 2013). In 1951, the Canadian Medical Association joined with the American College of Physicians, the American Hospital Association, and the American Medical Association to create the Joint Commission on Accreditation of Hospitals (JCAH).

The Canadian Commission on Hospital Accreditation (CCHSA) was established in 1953 by the Canadian Hospital Association (now the Canadian Healthcare Association), the Canadian Medical Association, the Royal College of Physicians and

Surgeons, and the French Canadian Medical Association. In 2008, the CCHSA officially became Accreditation Canada. ACI opened its first office in the Middle East (Dubai) and launched its first international program for primary care in 2010. ACI's accreditation standards reflect the organization's superiority in patients' care delivery and its success and effectiveness in carrying out its business (Accreditation Canada, 2008).

In order for a health care organization to acquire and retain accreditation by ACI, a survey team conducts an on-site survey once every three years (Accreditation Canada, 2008). Typically, ACI's survey team includes a physician, a nurse or a senior hospital administrator, and perhaps one, two, three or more health care professionals. The ACI accreditation survey in hospitals is based on performance expectations for actions that have an effect on the quality of patient care and concurrently patient safety (ACI, 2008, 2010).

ACI's accreditation standards for various services and facilities based on feedback from health care professionals, health care organizations, consumers, and employees. The standards are continuously updated to include new improvements in the health care field; thus ensuring that higher quality is continuously pursued by health care specialists in delivering safe care to patients (ACI, 2008).

The ACI program contains three levels that form the basis of the rating that the organization gets for accreditation: Gold, Platinum, and Diamond. The Gold level addresses basic structures and processes linked to the foundational elements of safety and quality improvement. The Platinum level builds on the elements of quality and safety, and emphasizes key elements of client- centered care, creating consistency in the delivery

of services through standardized processes and involving clients and staff in decision-making. Finally, the Diamond level focuses on the achievement of quality by monitoring outcomes, using evidence and best practice to improve services, and benchmarking with peer organizations to drive system-level improvements (ACI, 2008, 2010). The standards are composed of a set of criteria, which are linked to one of the three levels of accreditation. These standards and criteria are the cornerstone of an organization's work on accreditation.

ACI follows an accreditation cycle (see Figure 2).

- Readiness Assessment: the readiness assessment is a process where a group of ACI surveyors visit the organization and assesses different aspects including some management and service processes. The readiness assessment survey does not assess all standards included in the final survey. This process results in a report that is provided to the organization that describes the status of the organization in relation to the assessed standards.
- Education: there are some basic workshops that are automatically included in the accreditation contract by ACI. These workshops offer an overview of the process and focus on the basics. ACI also offers other workshops that organizations can choose to enhance competence and good comprehension on the accreditation process.
- Self-assessment: Self-assessment is a framework for evaluating processes, their impact on results, and progress towards achieving ACI standards and criteria. It is an open and transparent process that allows staff to identify how well they are doing and the level of compliance with ACI standards.

Self-assessment is an important component of ACI program and is completed in the first months leading to the final onsite survey. All staff in a given service area are asked to participate in the self-assessment by completing anonymous on-line questionnaire that are linked to the standards. The results are automatically posted on the organization portal as the organization's Quality Performance Roadmap. The Roadmap is an electronic tool that helps organizations easily identifies strengths and areas for improvement through a dashboard kind of presentation that flags the criteria that the organization does need to work and improve on before the final survey (Accreditation Canada, 2013).

- Simulated (mock) survey: the simulated mock survey is a process where a team of surveyors from ACI visits the organization to assess its compliance with standards in preparation for the final survey of the cycle. This survey typically takes place about 6 months prior to the final survey and does not include all facilities. In the Mock Survey, surveyors conduct *Tracer* activities to prepare the organization for the Final Survey. The mock survey provides an assessment of the organization's compliance with ACI standards and criteria; it is an opportunity to test the organization's response to the survey process and assess the readiness for the final survey. The mock survey also allows staff to become familiar with surveyor interactions, the types of questions surveyors may ask, and to gain practice in responding to questions. The survey aims mostly to give an overall assessment of the organizations' status as well as offer guidance on areas where the organization needs support to achieve compliance.
- The final (onsite) survey: the final survey is when the organization is assesses against as all criteria and processes by a group of surveyors visiting the organization. This survey

determines whether the organization achieves accreditation, accreditation with condition, or does not achieve accreditation. Accreditation decision and report: as mentioned above, the results of the final survey determine the accreditation decision. The accreditation decision is reached by discussion of the results by ACI officials who can require the information to present more information before the final decision is made.

- Progress Review: Accreditation work does not end by the end of the first cycle and achieving accreditation status. ACI continues to work with the organization following the accreditation decision and report and will ask for evidence of actions taken to amend the decision if necessary (e.g., accreditation with condition Vs. Accreditation). The progress review requires annual reporting of indicators, as well as focused visits by surveyors to assess compliance with standards that the organization did not meet in the first cycle.

Summary

The literature review in this chapter provided theoretical evidence that implementing accreditation in healthcare organizations not only improves patient safety, but it also fosters organizational learning. Despite the many studies arguing that there is a positive impact after implementing an accreditation process in healthcare organizations, the empirical evidence base for the benefits of accreditation is an area where academic research is greatly needed. Although various academic studies acknowledged that accreditation was a significant cause for the improvement of quality and patient safety in healthcare organizations, it is clear that much evidence is needed on measuring the actual impact of accreditation on patient safety and organizational learning. Little research was conducted in the Middle East on the implementation of accreditation programs since an

organized structure of primary health care organizations is relatively new. This scarcity of research gives more support to the purpose of this study and the value it adds to the academic community through the empirical evidence it brings.

The previous chapters presented an overview of the study, a review of the literature and findings that are peer –reviewed and cited by international scholars on accreditation and its impact on quality of care and organizational learning. A description of the setting and sample are stated in the following chapter, as well as details of the procedures used in the research design. A thorough description of the research instrument and procedures implemented for content review is presented. Data collection protocols and the statistical analysis are also discussed. The chapter concludes with the measures taken to protect the rights of participants as well as the Institutional Review Board approval for this research.

Chapter 3: Research Method

Introduction

The purpose of this study was to quantitatively examine the changes resulting from the introduction of accreditation in a primary care organization by exploring whether applying ACI standards provoked quality improvement and organizational change and learning. Using Pomey's (2003) framework for measuring the cyclical relationship between the conditions favoring change and the characteristics of change, this study measured the impact of the intervention of accreditation and the changes it brought at the institutional level at PHCC in the State of Qatar.

This chapter includes a detailed description of the study's research design, academic research framework, sample, data collection instrumentation, data analysis approach, and ethical considerations. An overview of the study's methodology is presented where the researcher justifies the rational for selecting this particular research design.

A description of the instrumentation, research setting, the sample characteristics and size, and the data collection process and analysis are discussed and presented. The chapter also addresses the methodology; it presents a detailed narrative of the sampling procedure and the instruments used to measure quality improvement and organizational change and learning. The data analysis part comprises a concise depiction of the models adopted for the measurement of the alleged concepts.

Research Design and Rationale

There is little research documenting information on the relationship between accreditation and the resulting quality improvement and organizational learning in primary care. For the purpose of addressing this gap in the literature, this study design included applying a descriptive correlational approach and using cross-sectional survey to collect data from managers, staff, and healthcare administrators involved in the accreditation process at PHCC in the State of Qatar.

This research design is in line with the recommendations by Cook and Cook (2008), who argued that a correlational survey design is best suited in academic studies when trying to describe relationships between variables that are known to exist. For the descriptive aspect of the study, it is as well in line with the recommendations by Johnson and Christensen (2004), who found that such an approach could be used when there was an objective to depict a condition of observable fact. The design used in the study helped investigate and measure the relationship between the independent variable of participation in the accreditation process and the dependent variables of quality improvement and organizational learning. This research employed T-test, Spearman's correlation coefficient, and ANOVA, and multivariate analysis to analyze the collected survey data through SPSS.

Methodology

Population

This research focused on identifying the organizational changes at PHCC that were attributed to accreditation. In order to attain a thorough measurement of accreditation impact, all employees who were identified to have good English language

competency at PHCC were the target population; that is 750 English competent employees out of the about 4,000 total number of employees. These employees worked at the 21 health centers (HCs) as well as the headquarters (HQs) as the organization implemented the accreditation program. Employees were managers, administrative staff, doctors, nurses, pharmacists, radiologists, technicians, support staff, and clerks. This diverse composition enabled the research to assess the accreditation impact from a variety of angles, from both frontline and management levels as well as from the perspectives of both healthcare providers and administrators.

Management of the 21 HCs was centralized at PHCC HQs. Secondary and tertiary care was referred to the main public hospital in the country, Hamad Medical Corporation (HMC). High levels of heterogeneity characterized the employee population since PHCC was operating as the main primary care body in the State of Qatar. The operative languages of the corporation were both Arabic and English. The sample population was stratified to target employees that were recognized by the organization as having good English competency skills, since English was a second language for the majority of employees working in the organization.

Only those estimated 750 employees who were known to be competent in the English language were the target population in the study in order to reduce the possibility of getting the wrong responses due to not understanding the questionnaire, and hence affecting the accuracy of the results. Access to this population was available to the researcher who was the accreditation manager at the same organization. Permission to contact the participants was obtained from both the Director of the Quality Management

Department (QMD) at PHCC and from the Research Committee that was under the governance of PHCC's Clinical Affairs Department (see Appendix F).

Sampling and Sampling Procedure

This research took place at PHCC, which is located in the State of Qatar. Although the organization employed close to 4,000 employees (at the time of the study) representing the total population for this study, and most of the employees had English as their second language, the proposed sample parameters were set to include only employees with good oral and written English skills. To avoid bias in the results, the researcher did not translate the questionnaires to other languages.

PHCC's quality department had identified 750 employees with good oral and written English skills. Due to the lack of confidential data in employees' records, a convenience sampling was employed for this study, as this kind was a nonprobability type of sampling method, in which researchers simply have access to groups of population (Pettus-Davis, et. al, 2011). Also, the survey request was sent to all managers, but the researcher ensured the managers were not provided with information about who is participating from their employees in order to eliminate any pressure for employees to participate.

In determining the appropriate sample size of the population (n) and to statistically estimate a population proportion (p), the researcher selected a confidence level of 95% (meaning 95% certain and α=0.05). The confidence level of 95% was selected since it provides a good balance between precision and reliability (Triola, 2011). This would also result in a critical value of $Z_{\alpha/2} = 1.96$. As the margin of error depends on

the difference between the observed sample population and the true value of the population proportion (*p)*, the researcher tried to lower the margin of error by reducing this difference.

In calculating the size of the sample required for a target population size of 750 employees (*N*), a confidence level of 95% was used, with a 10% margin of error, representing the maximum likely difference between the observed proportion and the true value of the population proportion. As a result the sample size of the population (*n*) required in the study would be 96 participants.

Procedures for Recruitment, Participation, and Data Collection

The research method, research approach, and research questions provide the foundation for academic research studies (Creswell, 2007). As such, Creswell proposed that the foundation of determining decisions regarding participation would lead to a sound research study. The quantitative data in this study was collected using Pomey's (2003) questionnaire which was adapted from Shortell's. The study evaluated the changes taking place due to the intervention of accreditation. There was a total of approximately 4,000 employees in the organization at the time of the study. A statistically significant number (500) of participants was included in the study based on participants English language competency level. Participants received an invitation via e-mail asking them to participate in the academic research study. In the email message the researcher informed participants of the purpose of the study and a link to do the survey electronically. Participants were also given the option of responding by sending the surveys back in a

paper-type format using internal mail messengers in the organization, which was authorized by the upper management.

Finally, the invitation emphasized that participation was voluntary, as participants had to provide their consent prior to taking the survey and had the choice to refuse or accept to complete the questionnaires (see Appendix G). The results of the collected questionnaire were then entered into an Excel spreadsheet, which enabled the researcher to give representation for each participant, as one row in the spreadsheet along with his/her demographic data. Lastly, the Excel file was imported into SPSS software for analysis.

Instrumentation and Operationalization of Constructs

This research was based on the conceptual framework for the *Dimension of Change* developed by Pomey (2003). The framework was presented in Chapter 2 and it measured the cyclical relationship between two major dimensions; conditions favoring the immergence and distribution of change and characteristics of change. The questionnaire used in this study was adapted from Shortell, and amended and used by Pomey (2003). The researcher submitted a written request along with the dissertation prospectus to Pomey for her approval to use both the framework and the questionnaire (See Appendix E). Pomey's approval was forwarded to the Dissertation Committee for documentation purposes.

Weber (2005) tested Pomey's (2003) questionnaire as presented in Appendices A and B for validity and reliability and used it to measure whether the accreditation process helped healthcare organizations become more reactive to change. As this study shared the

same objectives and was testing the same variables in an international primary care setting, the researcher utilized the same instrument and framework. Applying this instrument to an international setting in the State of Qatar and specifically to a primary health care organization (versus a hospital in Pomey's study) would significantly contribute to the academic research body in this area.

Operationalization

The questionnaires were adopted from Shortell's (1995) and Quinn's (1984) and amended by Pomey (2003) to include the *Accreditation* and *Information about Yourself* sections. The questionnaires were divided into two categories (a) management questionnaire, for studying the quality improvement program and (b) culture questionnaire, for studying the organizational learning processes. The following is a description of the questionnaires and their operationalization.

Management Questionnaire- Perception of Quality Improvement

Through the management questionnaire, research data on the management of quality of care and professional involvement was gathered. The respondents were asked to rate each question as either l - Strongly disagree, 2 - Disagree, 3 -Neither disagree nor agree, 4 - Agree, 5 - Strongly agree, or 9 - Don't know (Shortell, 1995). The questionnaire contained four sections: quality of care, professional participation to organizational management, accreditation impact, and information about participants. The four sections are presented in more details below.

Quality of care. In this section of the questionnaire, the objective was to gather information on the employees' involvement in quality improvement within the

organization across seven areas or scales: leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results, and customer satisfaction (see Appendix I).

Under leadership there were eleven questions that examined the involvement of senior leadership, as the participants were asked if their leaders (supervisors, managers and executive) provided visible leadership to "support quality improvement; allocate available resources; participate in quality improvement activities; have circulated a clear vision for quality improvement; have demonstrated an ability to manage change; act on quality improvement suggestions; have a thorough understanding of how to implement quality improvement; generate confidence in quality improvement efforts; are personally involved in quality improvement; and whether the director is the primary driving force behind quality improvement" (Shortell, 1995). These questions were a reinforcement of Shortell's (1992) argument on the need to evaluate the involvement of executive directors could create and sustain quality values that were part of the organization's management system.

Under information and analysis, there were seven questions that examined the collection and use of quality improvement data as the participants were asked "whether their team collects a wide range of quality improvement data; uses a wide range of quality data to make improvements; continuously tries to improve how it uses quality data; tries to improve accuracy and relevancy of its quality data; tries to improve accuracy and relevancy of its quality data; tries to improve the timeliness of its quality data; is involved in determining what data to collect for quality improvement; and

compares its quality data to other organizations" (Shortell, 1995). These questions were a reinforcement of Shortell's (1992) argument on the need to evaluate how the use of information and data improved the organization's operational performance.

Under strategic quality planning analysis, there were seven questions that examined the quality goals of the organization as the participants were asked "whether employees are given adequate time to plan and test improvements; are involved in developing these plans; whether each department and group maintains specific quality improvement goals; whether the organization's quality improvement goals are known throughout the organization; whether middle managers play a key role in setting quality improvement priorities; and whether non-managerial employees also play a key role in setting quality improvement priorities" (Shortell, 1995). These questions were a reinforcement of Shortell's (1992) argument on the need to involve and empower employees in the organization's quality planning efforts.

Under human resources utilization there were eight questions that examined the investment in human resources for quality improvement initiatives as the participants were asked "whether employees are given education and training on how to identify quality improvement opportunities, statistical and other quantitative methods for quality improvement, and improving job skills and performance; whether employees are rewarded and recognized for quality improvement; have the authority to correct quality problems; are supported when they take risks for quality improvement; whether inter-departmental cooperation for quality improvement is supported and encouraged; and whether the organization has an effective system for employees to make quality

improvement suggestions ” (Shortell, 1995). These questions were a reinforcement of Shortell’s (1992) argument on the extent to which the organization was providing training and support to employees for quality improvement efforts.

Under quality management there were nine questions that examined the quality improvement initiatives implementation and management and the participants were asked “whether the organization regularly checks equipment and supplies; has effective policies to support QI; works closely with suppliers for QI; tries to design quality into new services as they are being developed; views quality assurance as a continuing search for improvement; encourages employees to keep QI records; whether data from suppliers is used in the QI plan; and the services provided are thoroughly tested for quality” (Shortell, 1995). These questions were a reinforcement of Shortell’s (1992) argument on the way the organization daily management practices affected its quality improvement efforts.

Under quality results there were five questions that examined the outcome of quality improvement as the participants were asked “if over the past few years, the organization has shown steady, measurable improvements in the quality of customer satisfaction, services provided by administration, care provided to family medicine and specialty clinics, services provide by clinical support departments, and whether the organization has maintained a high quality despite obstacles and constraints” (Shortell, 1995). These questions were a reinforcement of Shortell’s (1992) argument on the need to measure improvement resulting from quality improvement initiatives.

In the customer satisfaction section there were nine questions that measured the satisfaction of both internal stakeholders (doctors and employees) and external

stakeholders (patients) as the participants were asked “whether the organization does a good job of assessing patient needs and future patient needs; whether employees promptly resolve patient complaints, studies complaints to identify patterns, and uses data from patients to improve services; whether patient satisfaction data is widely communicated; whether the organization does a good job assessing physician satisfaction and employees satisfaction; and uses satisfaction data when designing new services” (Shortell, 1995). These questions were a reinforcement of Shortell’s (1992) argument on the need for hospitals to understand and meet the expectations of customers.

Professional participation to organizational management. In this section of the questionnaire, the goal was to measure the level of involvement of the respondents in the organization as they were asked “about their involvement in administrative decisions in the areas of budgets, human resources, professional practices, and the acquisition of new equipment and technologies.” (Shortell,1995). They were also asked if they were consulted in the decision-making process and if their opinion was taken into consideration. Lastly, they were asked how they would rate their and other professionals' level of participation in the organization's management. The respondents were asked to rate each question on a scale ranging from "1 -Never" to "5 - Always."

Accreditation impact. This section of the questionnaire was added by Pomey (2003). In this section, which is of outmost importance for the study, the objective was to examine the impact of the accreditation process on dynamics of change in fourteen questions. This section of the questionnaire was also used to assess organizational learning by analyzing the extent of the organization’s alignment with the environment

(Fiol & Lyles, 1985). The respondents were asked “whether important changes were implemented during self-assessment and whether they participated in the implementation of these changes; whether they were part of a self-assessment team; whether they learned of the recommendations made since the last survey; whether the recommendations were opportunity to implement changes and if they participated in these changes; whether accreditation enables the improvement of patient care, the development of shared values, better use of internal resources, better response to population needs, and better response to its partners; whether accreditation contributes to the development of collaboration with partners, is a tool to implement changes; and whether the organization's participation in accreditation enables it to be more responsive when changes are implemented” (Pomey, 2003, 35-36). The respondents were asked to rate each question as either "l - Strongly disagree," "2 - Disagree," "3 -Neither disagree nor agree," "4 - Agree," "5 - Strongly agree," or "9 - Don't know" (Poemy, 2003). This area was of extreme importance for this study as it revealed information on the research questions and problem statement and that was analyzed in Chapters 4 and 5.

Demographics. As in every instrument, demographic information on the participants was collected to assist in organizing and evaluating the results. Respondents were asked to simply check the box that applied for each question they answered. The complete management questionnaire used in this study can be found in Appendix A.

Culture questionnaire. The culture questionnaire Pomey (2003) used, adapted from Quinn, R.E., and J.R. Kimberly (1984), gave insight on the organizational culture in four dimensions; the organization’s character, the organization’s managers, the

organization's cohesion, and the organization's emphasis. The organization's character was examined by assessing how the organization was viewed by the respondents such as being dynamic, entrepreneurial, and very productive. Under the organization's manager, the way managers treated employees was examined and the type of character managers had and how it impacted their communications with their staff. Under the organization's cohesion, the loyalty and commitment of the organization was discussed. Finally, under the organization's emphasis there was a discussion on important points like human resources, performance, and achievements. The culture questionnaire was utilized to assess the organizational learning through investigating the culture types in terms of the contextual factors in the learning process as discussed in chapter two (Fiol & Lyles, 1985).

In answering the questionnaire, Quinn and Kimberly (1984) requested "the respondents weigh the four scenarios within each of the four dimensions by indicating which scenario applies which percentage of the time. Question "a" under all four dimensions relates to group culture, question "b" under all four dimensions relates to developmental culture, question "c" under all four dimensions speaks to hierarchical culture and question "d" under all four dimensions addresses group culture. The goal of rating these four dimensions was to determine what type culture applies to the organization (Quinn and Kimberly, 1984). The complete culture questionnaire used in this study can be found in Appendix B.

Data Analysis Plan

A correlation design guided the analysis of this study. Data was entered and analyzed using the statistical software IBM-SPSS (Statistical Package for Social Sciences), version 21.0 (Chicago, IL, USA). Cleaning of the data was conducted after data was entered into the database where missing and/or incomplete data was coded as 999. Questionnaires with too many missing answers were excluded from the analysis. Two different people revised the data twice. A P-value < 0.05 was considered significant.

The researcher used two questionnaires: management questionnaire and culture questionnaire. The management questionnaire was divided into quality of care (leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results and customer satisfaction), professional participation in the organization's management, accreditation impact and information about participants sections. The culture questionnaire was divided into the organization's character, the organization's managers, the organization's cohesion and the organization's emphasis sections. The culture questionnaire enabled the researcher to measure statistically each of the four types of culture: group, developmental, hierarchical and rational.

Main Analysis

Research Question 1: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar bring quality improvement changes at the institutional level?

Ho: The introduction of ACI accreditation program at PHCC in the State of Qatar does not bring quality improvement at the institutional level.

Ha: The introduction of ACI accreditation program at PHCC in the State of Qatar brings quality improvement at the institutional level.

Data Analysis 1: The management questionnaire was utilized to test this null hypothesis. The researcher did a descriptive analysis for the seven (dependent variable) scales of the quality of care section of the questionnaire (leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results and customer satisfaction), and for the professional participation in the organization's management section and accreditation impact section.

Data collected by the questionnaires were analyzed by gender, age, working status, years with the organization, area in the organization, occupation, member of the QMD, and involvement in the accreditation process. Descriptive analysis included means (SD), median, mode, range, minimum, maximum and sum. The researcher used T-test and ANOVA test to compare different questionnaire sections' means and accreditation impact dimensions' means. Results generated information that was categorized according to the profiles of participants who responded saying that the introduction of ACI accreditation program had brought quality improvement at the institutional level at PHCC.

Research Question 2: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar foster organizational learning at the institutional level?

Ho: The introduction of ACI accreditation program at PHCC in the State of Qatar does not foster organizational learning at the institutional level.

Ha: The introduction of ACI accreditation program at PHCC in the State of Qatar does foster organizational learning at the institutional level.

Data Analysis 2: The management questionnaire was utilized to measure organizational learning (dependent variable) in this null hypothesis through assessing alignment with the environment. Specifically, this was done through analyzing responses under part C of the management questionnaire, the accreditation impact. Additionally, the culture questionnaire was utilized to assess the organizational learning in this null hypothesis through investigating culture types in terms of the contextual factors in the learning process.

For the culture questionnaire, the researcher first studied the correlations between the four sections of the questionnaire according to each type of culture (group, developmental, hierarchical and rational) using spearmen's correlation. The researcher then conducted a culture questionnaire score distribution -for the four types of culture- by gender, age, working status, years with the organization, area in the organization, occupation, member of the QMD, and involvement in the accreditation process. Further, the researcher used T-test and ANOVA test to compare different culture questionnaire sections' means. A multivariate analysis was also conducted. This resulted in information that helped interpret the profile of participants who mentioned that the introduction of ACI accreditation program fostered organizational learning at the institutional level at PHCC.

Threats to Validity

Pomey's framework and questionnaires for reliability and validity were used in this study. Sources of experimental invalidity are the causes of the limitation and the hindrance of good research design, and they arise from errors that prevent researchers from drawing clear conclusions. Two major subdivisions lie under experimental invalidity: internal invalidity (when the external influences are not controlled by the researcher, and are the results observed are not considered to be solely dependent on the experiment's variable) and external invalidity (the degree the experimental group would no longer reflect the population it is withdrawn from) (Babbie, 2010).

Internal validity is the degree to which the results could be attributed to the independent variables; it refers to the possibility that conclusions drawn from experimental results might not accurately reflect what went on the experiment (Babbie, 2010). Internal validity addresses whether the design of the research has accounted for all the factors that have an effect on the inferences made, in this case on accreditation. Internal validity is very critical to this research as the conclusions made about accreditation and changes that were attributed to accreditation might actually be the result of accreditation or other factor(s).

External validity refers to the likelihood that inferences taken from experimental results may not be generalizable to actual reality, that is, when applied in a different time with different people and different setting (Babbie, 2010). External validity is evaluated by studying whether the research design and methodology would yield to the same results when applied in other organizations. The fact that Weber's (2005) study came to the

same inferences like Pomey's (2003) study using the same tools, is an indication of external validity.

Construct validity is to the degree to which we are measuring what we claim we are measuring; it directly relates to the making inferences about conceptual definitions by working with operational definitions. Luckily, construct validity for this research was already instated since the research design had already been applied and validated in a study conducted in France (Pomey 2003). The research that was conducted in France investigated the same variables. The instruments themselves were also exploited in previous studies. Quinn's culture questionnaire was used in the *Western Network Quality Improvement Study*, the *National Study for the Assessment of Implementation and Impact of Clinical Quality Improvement Efforts*, and the *Health Systems Integration Study*. The management questionnaire was developed and validated by Shortell for application in the *Western Network Quality Improvement Study* (Shortell 2004). Since the tools used for measuring the same variables in different studies lead to same inferences, construct validity was established.

There is also the threat of selection when it comes to validity of the experiment (Creswell, 2009). Obviously, the threat of selection was evident since there was the concern that the particular experimental group might not represent the whole population. Surveys are known to produce unpredictable and low response rates. A suitable sample size was significant to the reliability and validity of the research. A population size of approximately 750 potential participants was identified. Since participants completed a survey that was administered one time only and there was no interaction and no time

pauses or gaps between participation of employees, the threats of maturation, history, mortality, compensation, diffusion of treatment, and testing was reduced.

The issue of dependability should be emphasized in any kind of research for the research to gain its trustworthiness. As the researcher conducted the study, the continuously changing context within the organization was taken into account. The researcher also described the changes that occurred before accreditation and how these changes might have affected the way the conclusions were realized.

Ethical Procedures

Careful consideration was given to the recruitment of participants. Participants were informed of the voluntary nature of this study in the introduction email. Access to the participants and permission to contact them was given from both the *Director of the QMD* at PHCC and from the *Research Committee* under the governance of PHCC's *Clinical Affair Department*.

The researcher had the data collection done at the same organization the researcher worked in. The data was collected from frontline staff who were based in the twenty-one HCs, and from management- level employees who were stationed in the HQs. It was very unlikely that there was any kind of social desirability bias since there was no personal relationship between the researcher and participants. The data collected via the questionnaires was unidentified; participants were also reminded that their responses were anonymous, and therefore, they were free to include their opinions, whether their opinions were positive, negative or neutral.

It was made very clear in the message that went to participants that participation was voluntary and that participants had the full right to accept or decline the request to take the survey; thus there was no perceived coercion to participate. The proposal for this research was evaluated and approved by the Walden University Institutional Review Board (IRB) and by the research committee at PHCC. A copy of the approval from Walden IRB was available during the data collection process.

Following acceptance of the research proposal by Walden University's Institutional Review Board, the target population staff and managers were informed through an email of the research study and were provided a link to complete the survey electronically. The respondents were informed about the nature and purpose of the research in the email message that participants received and that provided them with all necessary information that included all the elements of an informed consent. Five hundred participants were randomly selected from the pool of 750 English-competent employees and received an email requesting them to participate in the research and giving them two weeks to complete the online questionnaires.

Despite the fact that the researcher was occupying the position of the accreditation manager at the organization at the time of the study, there was no pressure on invitees to participate or to give certain types of responses since the researcher was not able to tell who responded back and/or whether a particular staff member did not respond at all. Recruitment and data collection was rightly anonymous; that is recruitment occurred in a way that no one, not even the researcher herself was able to know who participated and who did not. It was also not possible to trace responses back to determine the identity of

the respondents. The questionnaire did not touch on participants' privacy and did not address emotional, psychological or ethical concerns. There was no risk confronting respondents or any kind of physical harm or violation of their rights.

As the issue of providing financial compensation to participants is highly contested among researchers (Klitzma, 2013), it was decided that it was best not to provide financial compensation to eliminate any ethical conflict of interest and to reduce risk of bias in having participants answer the survey to gain financial reward. After the first week, another reminder email was sent to participants reminding them to complete the survey. This reminder email informed, once again, respondents of the confidentiality of the study and that their input was valuable and their identity was secured.

Since the researcher filled the position of the accreditation manager during the time of the study, the invitation email informed participants that the survey was not part of the PHCC accreditation process, but rather this survey was an independent doctorial research study and as their input was valuable, they could choose to complete it on a voluntary basis.

Summary

In summary, this chapter reviewed the processes used for conducting the study. Purpose and research questions were restated. The rationale for choosing a descriptive correlational approach and using cross-sectional survey design to collect data from managers, staff, and healthcare administrators involved in the accreditation process at PHCC in the State of Qatar were discussed. Sample selection and how to find and recruit suitable participants were discussed. The results of the study are presented in Chapter 4.

Chapter 4: Results

Introduction

The problem addressed in this study was the lack of adequate evidence in the literature about the true value of accreditation in primary care. Even though, there was a wealth of information about accreditation in general, scarce evidence existed on the impact of accreditation on primary healthcare organizations in the Middle East. The purpose of this study was to assess the changes that were initiated due to the application of ACI's program in a primary healthcare organization in the State of Qatar. The study aimed at responding to the above problem with empirical evidence. The research questions addressed the impact of accreditation on quality improvement and on organizational learning in a primary healthcare organization. This study was conducted by utilizing a descriptive correlational methodology and by applying a cross-sectional survey design to gather data from PHCC employees who were present at the organization during the accreditation process. Data was collected from both front-line and management staff 12 months after the implementation of ACI standards using structured questionnaires that were previously used and tested for reliability.

This chapter displays the results and the comparative breakdown of data gathered in the research. The data collection, organization, and analysis are described. The conclusions confirmed a direct association between accreditation and quality improvement as well as a considerable correlation between accreditation and organizational learning.

Data Collection

The survey was sent out to randomly selected PHCC employees and participants were given 2 weeks to respond. An e-mail invitation was sent out to participants requesting them to complete the study. The invitation explained the aim of the research and included a link to do the survey electronically using the SurveyMonkey online survey tool. Participants were also advised that they could make a print out of the survey and fill it out manually if they were more comfortable doing the survey by hand. Participants were asked to send the hard copies of the surveys with internal mail messengers in the organization, which was authorized by management. The researcher emphasized in the e-mail message that participation was voluntary, and that participants had the choice to refuse or accept to complete the questionnaires (Appendix G).

For the purpose of attaining a comprehensive measurement of the impact of accreditation, all employees who were identified to have good English language competency at PHCC were included in the target population as discussed below, 750 English competent employees out of about approximately 4,000 total number of employees at the time of the study. Only those estimated 750 employees were the target population in the study to reduce the likelihood of obtaining inaccurate responses due to misunderstanding, and thus affecting the precision of data.

The selected staff worked at the 21 HCs as well as the HQs since the organization implemented the accreditation program. Employees were managers, administrative staff, doctors, nurses, pharmacists, radiologists, technicians, support staff, and clerks. The mix

of employees from both HCs and HQs allowed the researcher to evaluate the accreditation impact from multiple perspectives, from both frontline and management levels as well as from the viewpoints of both healthcare providers and administrators.

A statistically significant number (500) of employees was included in the study and the selection of participants was dependent on the English language competency of employees as mentioned previously. The list of employees with good English language proficiency was obtained from the QMD (QMD) at PHCC, which had conducted an assessment study on staff English language competency.

Access to this population was given to the researcher who was the accreditation manager at the organization. The researcher was able to contact the participants only after attaining the permission to do so from both the Director of the QMD at PHCC and from the Research Committee (see Appendix F).

Data Organization

Five-hundred questionnaires were sent out to managers and frontline employees in the corporation at both the HQs and HCs levels. A total of 285 questionnaires were returned, for a response rate of approximately 57 %, which is relatively adequate for this type of survey (Babbie, 1998). All questionnaires were submitted electronically except for one survey which was sent in as a hard copy. This questionnaire was entered into the system through manual data entry feature of the SurveyMonkey website. A total of 68 % of the questionnaires was complete; that is, 194 questionnaires were complete and 91 questionnaires were missing some sections or parts of sections.

One of the main reasons for this high completion rate was one favorable feature in the online SurveyMonkey tool that reduced the prevalence of incomplete sections; for example, participants were not allowed to move to the second section before completing the first one. It was a rare occurrence that incomplete sections were present. Some questionnaires did have missing sections, especially the last section sections C and D since participants would reach those sections and not continue the survey. Some questionnaires had sections B, C, and D missing. Others had sections C and D missing and some had only section D missing. All questionnaires that were incomplete were excluded except those who were missing section D, the corporation culture section. Questionnaires that had sections A, B, and C completed, and missing section D, were not excluded since those sections addressed the complete information that was relevant to research question 1. This is evident in the variation in the number of competed sections as shown in Table 1 below. The variation in the number of items among the scales is due to the calculations of the "Don't know" value which was considered and entered as missing.

Table 1

Number of completed surveys for all sections in the questionnaire

Section of Questionnaire	Scales	Number of surveys
Quality of Care	Leadership	253
	Information and Analysis	253
	Strategic Quality Planning	252
	Human Resources Utilization	252
	Quality Management	250
	Quality Results	248
	Customer Satisfaction	250
Professional Participation in Corporation Management	Professional Participation	253

Accreditation Impact	Accreditation Impact	252
Culture	Culture A	194
	Culture B	194
	Culture C	194
	Culture D	194

Data Analysis

The results of the collected questionnaire were entered into an Excel spreadsheet, which enabled the researcher to give representation for each participant, as one row in the spreadsheet along with his/her demographic data. The Excel file was imported into SPSS software for analysis.

Management Questionnaire: Perception of Quality Improvement

The management questionnaire section was calculated in accordance with the instrument developed by S.M. Shortell et al. (1995). Valid values for each of the components under this section were integers from 1 to 5, where 1 is low (rated as strongly disagree) and 5 is high (rated as strongly agree). Data that was missing was indicated with blanks, and 9 was entered if the ‘don’t know’ selection was made. The scales were continuous numbers that ranged between 1.00 and 5.00 again with 1 being low and 5 high. For all respondents from both the HCs and HQs, an individual score was computed for each of the seven scales in this section. The basic formula for each scale was first to determine the number of responses for a scale and then to check the valid answers. If there were valid answers for at least one-half of the scale items, the completed

questions' scores were added for the scale and then divided by the number of valid answers. If there were valid answers for less than one-half of the items for a scale, that individual should be scored "missing" for that scale (Shortell et al, 1995).

The organization wide score was computed using the mean value of the individual scores for each scale. The same analysis was used for the quality of care and accreditation sections of the questionnaire.

Quality of care. Applying the SPSS software, the means, range, and standard deviations were computed for each of the seven scales in this subsection. Cross-tabulations between the seven scales and the eight variables under subsection D (Information about Yourself) were generated. Tests on these means were then performed to disclose the differences between them at 95% confidence interval (CI). The confidence level of 95% was selected since it provides a good balance between precision and reliability (Triola, 2011).

Accreditation impact. Using SPSS, the means, range, and standard deviation were calculated for the different items and in accordance with the eight demographic variables. T-tests on the means were performed to disclose important variation between the mean scores.

Culture Questionnaire

For the part of the questionnaire on corporation culture, the questions represented organizations A (group culture: the culture reflects connection, teamwork, and cooperation), B (developmental culture: the culture is of adventurous and innovative nature), C (hierarchical culture: the culture reflects a bureaucratic nature) and D (rational

culture: the culture depicts a state of competence and accomplishment). Appendix H was also added to include definitions on the four culture types for easy and quick reference. Acceptable values for each of the questions were from 0 to 100, for each subsection totaling 100. The instructions for data entry were applied in accordance with directions from Quinn and Kimberely (1984). A score was calculated for each of the four culture types for each questionnaire. Also for each type of culture, the overall organizational level scores were computed by using the mean value of the individual scores of respondents.

Using SPSS software, the means, range, and standard deviations were calculated for each of the four culture types. Cross tabulations were also outlined between each culture group and each of the demographic variables. T-tests on the means permitted the identification of the differences between the means of different variables, at 95% CI.

In addition to that, correlation analysis between the four culture types and the accreditation impact section questions were also generated.

Sample Profile

The description of the sample is summarized in Table 2 below and highlights are presented here:

- The response rate from the HCs (48%) and the HQs (50%) was very close indicating a roughly equal representation from both perspectives.
- The sample represents a good distribution across the occupational categories, including 22 physicians, 60 nurses and 17 managers.

- More females than males responded to the questionnaire (57%) which is close to the proportion of female employees in the organization, being 58 % in 2015 at the time of the survey as reported by human resources department at PHCC.
- The majority (79%) of the respondents were under the age of 45 years, but close to two thirds of the respondents had more than ten years' experience with the organization (63%).
- The main clinical occupation category representing respondents was nursing (23.4%). Physicians' rate was 8.6%. Radiology (6.6%) and dental (7%) were almost the same.
- For the non-clinical, the majority were other administrative (21.5%), followed by coordinator level (12.1%). Managers were 6.6 % and project managers and heads were both 8%.
- 15% of the respondents identified themselves as occupying a managerial position. This is close to the proportion of head quarter's employees in the organization, being 17 % in 2015 at the time of the survey as reported by human resources department at PHCC.

Table 2

Respondents Characteristics

Demographic Details	Variable	N	Total	Percentage	Total
Gender	Male	109	253	43%	100%
	Female	144		57%	
Age	<=45	199	253	79%	100%
	>45	54		21%	
Years in the Organization	<=10	180	253	71%	100%
	>10	73		29%	

Managerial Position	Yes	37	253	15%	100%
	No	216		85%	
Clinical Team	Yes	132	253	52%	100%
	No	121		48%	
Member of QMD	Yes	212	253	84%	100%
	No	41		16%	
Involved in last Accreditation	Yes	67	253	26%	100%
	No	186		74%	
Work Location	HQ	122	253	48%	100%
	HC	131		52%	

Occupation Variables	N	%
Director, Manager, Project Manager, Head	37	15%
Coordinator	30	12%
Other Administrator	54	21%
Physician, Dental	40	16%
Nursing	59	23%
Pharmacy, Laboratory, Radiology, Other Clinical	33	13%

Research Questions

Impact of ACI Accreditation on Quality Improvement

Research Question 1 was the following: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar bring quality improvement changes at the institutional level?

In order to test this question, the following analyses were conducted as described previously in the Data Analysis section of this research. At first, the quality of care section of the questionnaire, which contains the seven quality improvement components, was analyzed, portraying overall findings to see how quality was generally perceived by PHCC employees. Next, the findings were compared against demographic variables. The same analysis was done on the impact of accreditation section, that is, overall findings

were initially assessed to see how accreditation was perceived by staff; and then, analysis was conducted against demographics variables as presented in Table 5. Following that, a correlation analysis was done between the seven scales of the quality of care section and the accreditation impact to assess the relationship between accreditation and quality. As mentioned previously throughout this document, the quality of care section refers to the employees' involvement in quality improvement, and not to actual outcome or process measures.

Employees Perception of the Quality of Care

Overall findings as interpreted in the seven scales. Data analysis of the quality of care part of the management section generated the results presented in Table 3. Appendix I was added to include definitions on the seven scales for easy and quick reference. For the purpose of interpreting the mean numerical values, a mean close to '1' indicated a low score and a mean close to '5' indicated a high score.

Interpretation of the total mean scores suggested that the areas of strengths in the quality of care variable were leadership (4.00) and quality results (3.92). As indicated in the definition of the mentioned scales, leadership relates to the leaders' focus and emphasis on quality values and the extent to which quality values are integrated in the management system of the organization. Quality results indicates that the organization recently achieved significant improvements in quality and performance in the care provided to clients as well as in administrative areas like finance and human resources, as reported by the employees.

The areas of weakness relative to other scales in the organization were customer satisfaction (3.79) and human resource utilization (3.67).The human resource utilization scale score indicated that employees did not perceive themselves receiving adequate training and education on quality improvement (Shortell, 1999). In conclusion and as observed through data interpretation, most of the scales under quality of care had high scores, which meant that employees perceived the organization with significant improvements in the areas of quality and performance.

Table 3

Employees Perception of Quality Improvement

Quality Scales	Mean	Standard Deviation	Range
Leadership	4.01	0.69	3.64
Information and Analysis	3.94	0.66	3.00
Strategic Quality Planning	3.83	0.72	3.00
Human Resources Utilization	3.67	0.81	3.75
Quality Management	3.93	0.61	3.00
Quality Results	4.03	0.63	3.25
Customer Satisfaction	3.79	0.74	4.00

Findings in relation to demographics. Analysis against the demographics showed that there was no significant difference for all variables in all scales under quality of care, except for the following (see Table 4). Please see Appendix K for the complete list of demographic scores, as only demographic data that is necessary for the purpose of this discussion was included in Table 4.

- Years in the organization: Employees who had worked in the organization for more than 10 years had more favorable perception about the leaders (p-value= 0.04).
- Involvement in last accreditation cycle: Analysis of the data under this category showed that there was a significant difference between those who were involved and those who were not involved in accreditation for the information and analysis (p- value = 0.005), human resource utilization (p-value = 0.00), quality management (p- value = 0.002), quality results (p- value = 0.002) and customer satisfaction (p- value = 0.002) scales. Employees who were involved in accreditation had more favorable perception of the mentioned scales.
- Work location: Under work location, there were significant discrepancies between front line employees and management- level ones. Front line staff had more favorable perception for all scales (p-value <0.001).
- Clinical Team Member: Both clinical and non-clinical staff had the same perception about quality except for the human resources and customer satisfaction parts, where the clinical team had more favorable responses.

Table 4

Perception of QI in relation to Demographics

Quality Scales	Years in Organization			Involvement in Accreditation			Work Location			Clinical Team Member		
	<=10 years	> 10 years	P-value	Yes	No	P-value	HQ	HC	P-value	Yes	No	P-value
Leadership	3.96	4.13	0.04	4.03	3.95	0.43	3.85	4.16	<0.001	4.04	3.97	0.40

Information and Analysis	3.93	3.97	0.68	3.99	3.81	0.05	3.72	4.15	<0.001	4.00	3.87	0.12
Strategic Quality Planning	3.82	3.86	0.69	3.90	3.64	0.10	3.62	4.03	<0.001	3.90	3.75	0.11
Human Resources Utilization	3.66	3.70	0.75	3.78	3.38	0.00	3.37	3.95	<0.001	3.81	3.52	0.01
Quality Management	3.91	3.96	0.55	3.98	3.77	0.02	3.74	4.09	<0.001	3.98	3.87	0.18
Quality Results	3.99	4.13	0.11	4.09	3.87	0.02	3.87	4.18	<0.001	4.06	4.00	0.44
Customer Satisfaction	3.76	3.87	0.29	3.86	3.61	0.02	3.52	4.04	<0.001	3.91	3.66	0.01

Accreditation Impact

Overall findings. In this section of the questionnaire, the aim was to study how employees perceived the impact of accreditation on the organization. As with the previous sections, and for the purpose of interpreting the mean numerical values, a mean close to ‘1’ indicated a low score and a mean close to ‘5’ indicated a high score.

The scores of the means for all parts of this section showed that employees agreed on the positive impact of accreditation on the organization. Following the methodology of Pomey (2003), and for the purpose of analyzing the results of this section, questions one and two were combined under the preparation phase scale as they related to implementation of accreditation requirements and preparation for the final survey. Questions three to five were combined and labeled under the recommendations scale as they addressed accreditation recommendations. Questions six to eight were categorized as internal changes as they spoke to improvements happening internally due to accreditation, and questions nine to eleven addressed changes influenced by external

factors and stakeholders and thus were labeled as externally-oriented changes. Questions twelve to thirteen were grouped under the valuable tool scale since they addressed the same.

As presented in Table 5, the overall impact of accreditation mean was 4.17. For the preparation phase, it was 4.20, which meant that employees were aware of and involved in the changes that were happening in preparation for accreditation. For the recommendations part, it was 4.10, indicating employees' awareness of accreditation recommendations. For the internal changes, the mean was 4.22, which suggested that staff saw the benefit of accreditation in improving the quality of care, in the values shared in the organization, as well as in the use of internal resources. For the externally-oriented changes, it was 4.09, this was relatively high as well, indicating that staff were confident in accreditation's positive impact on addressing issues brought in by external factors like population needs and working with external stakeholders. For the valuable tool part it was the highest value, 4.32, and this was an indication of employees' belief that the organization was more responsive to change due to accreditation.

Table 5

Employees Perception of Accreditation

Accreditation Scales	Mean	Standard Deviation	Range
Overall Impact	4.17	0.57	3.00
Preparations	4.21	0.69	3.50
Recommendations	4.11	0.65	3.00
Internal Changes	4.22	0.66	3.00
Externally Oriented Changes	4.09	0.70	4.00
Valuable Tool	4.32	0.59	3.00

In conclusion, employees at PHCC perceived accreditation to be a valuable tool that triggered recent improvement initiatives at the organization.

Findings in relation to demographics. Interpretation of the scores under accreditation impact showed that some variables had discrepancies in some of the categories as shown in Table 6. The significant differences were identified in the years in organization, work location, and involvement in last accreditation cycle variables. See Appendix K for the complete list of demographic scores, only demographic data that is necessary for the purpose of this discussion was included in Table 6.

- Years in organization: For the preparation phase of accreditation, that is implementation of accreditation requirements, the p- value (0.01) showed that there was variation between the views of employees who had been working in the organization for more than 10 years (more favorable response) and employees who had been working for less than 10 years.
- Involvement in last accreditation cycle: For this category, all employees who were involved in last accreditation cycle had more favorable responses than those who were not involved for all of the following subscales; preparation phase (p-value < 0.001), recommendations (p-value < 0.001), internal changes (p-value = 0.01), externally oriented changes (p-value = 0.02) and valuable tool (p-value = 0.00).
- Work location: the scores under this category suggested that frontline employees at the level of the HCs had more favorable perceptions about accreditation in comparison to HQs employees, with all p-values for all subscales, ranging between 0, 0.01 and 0.001.

Table 6

Perception of Accreditation in relation to Demographics

Accreditation Scales	Years in Organization			Involvement in Accreditation			Work Location			Clinical Team Member		
	<10 years	> 10 years	P-value	Yes	No	P-value	HQ	HC	P-value	Yes	No	P-value
Overall Impact	4.13	4.28	0.06	3.86	3.61	0.00	4.02	4.31	<0.001	4.23	4.11	0.09
Preparation	4.15	4.35	0.01	4.37	3.75	<0.001	4.10	4.31	0.01	4.25	4.17	0.36
Recommendations	4.06	4.22	0.07	4.25	3.70	<0.001	3.97	4.23	0.00	4.15	4.05	0.21
Internal Changes	4.17	4.34	0.07	4.29	4.03	0.01	4.05	4.38	<0.001	4.30	4.14	0.06
Externally Oriented Changes	4.06	4.17	0.27	4.15	3.91	0.02	3.92	4.25	<0.001	4.17	4.01	0.08
Valuable Tool	4.30	4.37	0.40	4.39	4.13	0.00	4.22	4.42	0.01	4.34	4.30	0.57

In addition to the above stated, a correlation analysis was carried out to assess the relationship between the introduction of accreditation and quality of care, as perceived by PHCC employees. As shown in Table 7, the results showed a significantly positive correlation between staff perception of accreditation and the perception of quality of care for all seven scales.

Table 7

Correlation between Accreditation and the Quality of Care scales

		Leadership	Information and Analysis	Strategic Quality Planning	Human Resources Utilization	Quality Management	Quality Results	Customer Satisfaction
Accreditation Impact	Correlation Coefficient	0.572	0.567	0.528	0.509	0.587	0.620	0.537
	P-value	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

The correlation analysis also showed that employees who had positive perception about accreditation for all accreditation subsections (preparations, recommendations, internal changes, externally-oriented changes and valuable tool) were also positive about the quality of care (p- value < 0.001 for all sections as presented in Table 8).

Table 8

Correlation between Accreditation subsections and Quality of Care

Accreditation Scales		Quality of Care
Overall Accreditation Impact	Correlation Coefficient	0.615
	P-value	<0.001
Preparations	Correlation Coefficient	0.351
	P-value	<0.001
Recommendations	Correlation Coefficient	0.482
	P-value	<0.001
Internal Changes	Correlation Coefficient	0.555
	P-value	<0.001
Externally Oriented Changes	Correlation Coefficient	0.621
	P-value	<0.001
Valuable Tool	Correlation Coefficient	0.509
	P-value	<0.001

In overall calculations, accreditation was thus positively correlated with quality (r = 0.62, p-value < 0.001), with an R2 value of 0.43 (see Table 8), as perceived by staff at PHCC. These findings are illustrated in Figure 3, a scatter plot with a fitted linear regression line of observed values showing a relationship between staff perception of accreditation and the perception of quality.

Based on the results of both the previous findings and the correlation analysis, the null hypothesis that there is no significant impact of accreditation on quality was rejected in preference to the alternative hypothesis.

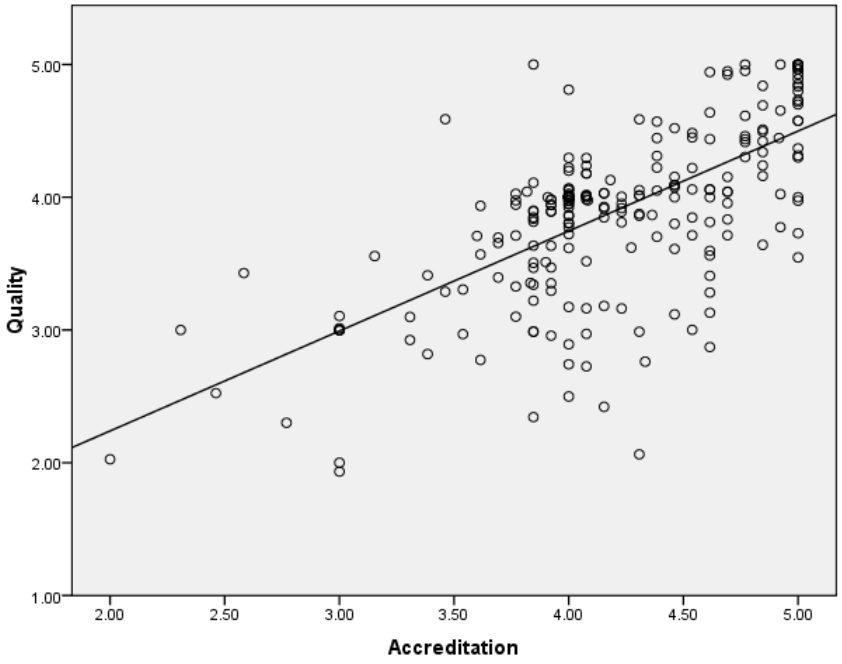


Figure 3. Relationship between Accreditation and of Quality of Care

A multivariate linear regression (see Table 9) was applied considering in the analysis the seven scales under quality of care section as the dependent variables (leadership, information and analysis, human resource utilization, quality management, quality results and customer satisfaction) and accreditation as the independent variable . The seven scales were collated into one variable to produce one quality of care variable. The demographic details (age, occupation, gender, years in the organization, and

location) and involvement in accreditation were added to the calculation as independent variables as well.

The multivariate analysis performed showed that the quality of care section was a correlate of accreditation (Standardized Beta = 0.65). This model covered 48.4% (adjusted R2 = 0.484) of the accreditation impact variability. Interpretation of the analysis showed that the quality of care as assessed by employees at PHCC was dependent on their perception of the impact of accreditation. Employees' work location (HQs or HCs) as well as their occupation (clinical or non-clinical) were contributing factors to these results.

Table 9

Multivariate Analysis

Coefficients							
Scales	Unstandardized Coefficients		Standardized Coefficients	t	P-Value*	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.59	2.14		1.21	0.23	-1.62	6.80
Accreditation Impact	5.27	0.40	0.65	13.15	0.00	4.48	6.05
Involved in Accreditation	-0.83	0.49	-0.08	-1.68	0.09	-1.80	0.14

* Adjusted for: age, occupation, gender, years in the organization, and location.

Impact of ACI Accreditation on Organizational Learning

Research Question 2 was the following: To what extent does the introduction of ACI accreditation program at PHCC in the State of Qatar foster organizational learning at the institutional level?

In order to test this question, the following analyses were conducted as described in the Data Analysis section previously. At first, the culture questionnaire section was analyzed, portraying overall findings to see how culture was generally perceived by PHCC employees. Next, the findings were compared against demographics as presented in Table 10.

A correlation analysis was also conducted between the four types of culture and accreditation impact to assess the relationship between accreditation and culture.

Organization Culture

Overall findings. A score was calculated for each of the four culture types. For each type of culture, the overall organizational level scores were computed by using the mean value of the individual scores of respondents. Acceptable values for each of the questions were from 0 to 100, for each subsection totaling 100.

According to the interpretation of the culture questionnaire and as depicted in Table 10, the two dominant cultures at PHCC were found to be *group* with a mean score of 28.61 and *hierarchical* with a mean score of 26.58. Thus, employees perceived PHCC to have affiliations, team work and participation (group culture) but also had certain embedded norms and values that were associated with bureaucracy (hierarchical culture).

Table 10

Employees Perception of Culture

Culture Type	Mean	Range	Standard Deviation
Group	28.61	100	14.01
Developmental	21.82	50	8.46
Hierarchical	26.59	78.75	11.93
Rational	22.98	75	10.06

As presented in the diagram below, the organization was also internally-focused and offered a balance between stability and flexibility (Shortell et al, 2001). Since the most predominant culture at PHCC was group, it was characterized by flexibility and internal focus (the dimensions closer to group as shown in the diagram). And since the second predominant culture was hierarchical, it was characterized by stability and internal focus (the dimensions closer to hierarchical as shown in the diagram).

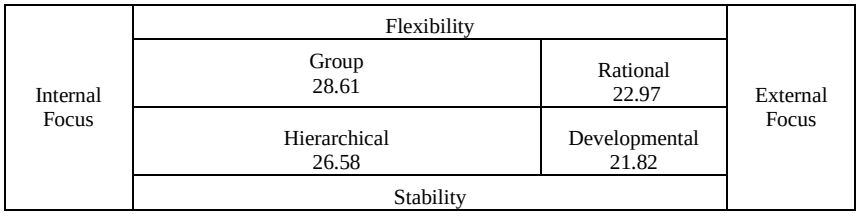


Figure 4. Relational Diagram of the organizational Culture Dimensions

Findings in relation to demographics. As shown in Table 11, interpretation of the scores under the culture section showed that there were no obvious discrepancies in the majority of the categories. Except for age, years in organization, work location, all scores revealed that there was minimum variation.

- Age: Employees who were less than 45 years (p-value= 0.02) had more favorable responses in regards to the rational culture than older employees.
- Years in organization: Employees who had been working for less than 10 years (p-value = 0.03) were leaning towards hierarchical culture more than employees who had been working for longer than 10 years.

- Work location: HC employees (p- value = 0.02) perceived the organization culture as developmental more than HQs employees. Whereas employees at the level of HQs viewed the culture as hierarchical (p- value = 0.01).
- Managerial position: Employees who occupied a managerial position (p-value = 0.03) viewed the organization culture as hierarchical more than employees who did not occupy a managerial post.

Table 11

Employees Perception of Culture in relation to Demographics

Culture	Work Location			Years in Organization			Involvement in Accreditation			Managerial Position		
	HQ	HC	P-value	<10 years	>10 years	P-value	Yes	No	P-value	Yes	No	P-value
Group	27.09	30.31	0.11	27.81	30.54	0.22	29.04	27.48	0.49	26.60	29.00	0.39
Developmental	20.51	23.28	0.02	21.15	23.45	0.07	21.66	22.25	0.67	20.64	22.05	0.40
Hierarchical	28.56	24.39	0.01	27.63	24.07	0.03	26.37	27.16	0.68	30.85	25.77	0.03
Rational	23.84	22.02	0.21	23.41	21.93	0.35	22.92	23.11	0.91	21.90	23.18	0.52

In addition to the above stated, a correlation analysis was carried out to assess the relationship between accreditation and culture (see Table 12). The results showed a positive correlation between staff perception of accreditation and their perception of culture type whenever the culture was identified as group (r = 0.182, p-value = 0.011). For the hierarchical culture, there was negative correlation between the perception of accreditation and the perception of culture type (r = - 0.132, p-value = 0.067).

Table 12

Correlation between Accreditation Impact and Culture

		Group	Developmental	Hierarchical	Rational
Accreditation Impact	Correlation Coefficient	.182	.093	-.132	-.070
	P-value	.011	.200	.067	.333

This is illustrated in Figures 5 and 6, a scatter plot with a fitted linear regression line of observed values showing a relationship between staff perception of accreditation and the perception of group and hierarchical cultures respectively.

Based on the results of both the previous findings and the correlation analysis, the null hypothesis that there is no significant impact of accreditation on organizational learning was rejected in preference to the alternative hypothesis.

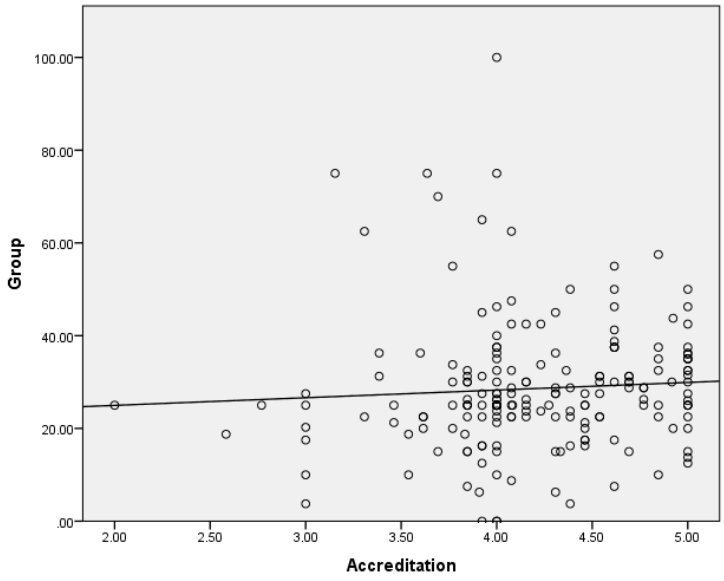


Figure 5. Relationship between Accreditation and Group culture.

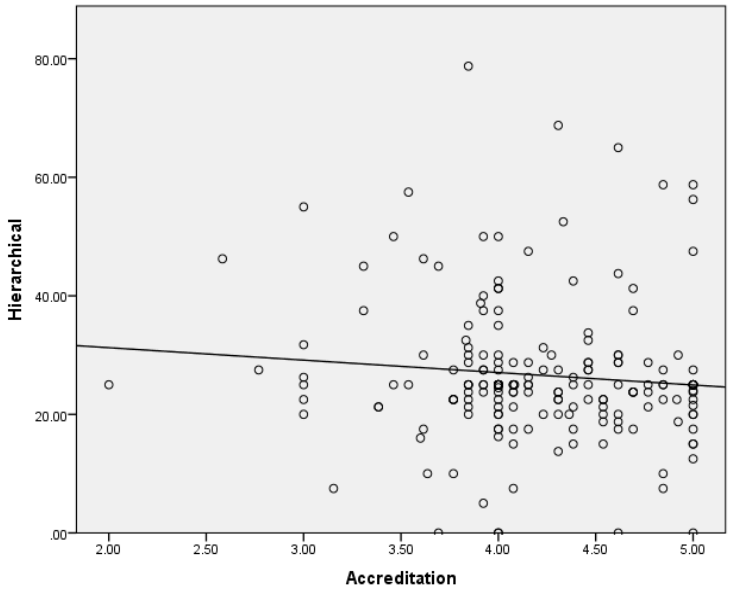


Figure 6. Relationship between Accreditation and Hierarchical culture.

Summary

This research aimed at evaluating the impact of ACI accreditation on quality improvement and organizational learning as perceived by employees at both management and frontline levels in a multi-facility primary healthcare organization. Data was collected from 285 employees coming from various disciplines- physicians, nursing, radiology, pharmacy, dentistry, managers and admin staff. The instrument that was used in this study was a self-administered questionnaire and included components that addressed quality of care, impact of accreditation and organization culture, as perceived by employees. Demographic variables used for the analyses were gender, age, occupational category, and years of experience in the current corporation.

Two research questions were investigated in this study. These questions sought to assess the impact of ACI accreditation on perceived quality of care, and examine the relationship between accreditation and organizational learning. A statistical analysis using SPSS was carried out to answer these questions. The analyses indicated that there was a significant impact of ACI accreditation on quality as perceived by employees. Also, the results showed the organization's culture to be more a predominantly group culture, with a positive association between group culture and accreditation, indicating that accreditation did foster a culture of organizational learning.

In Chapter 5, an interpretation of the findings is presented and a discussion around that, as well as the limitations that were encountered and recommendations for future research. Lastly, the implications for social change and the conclusion are presented.

Chapter 5: Summary, Conclusions and Recommendations

Introduction

The purpose of this quantitative study was to assess the impact of accreditation on quality improvement and organizational learning in a primary healthcare setting as perceived by employees. The study investigated and measured the relationship between participation in the accreditation process and quality improvement and organizational learning at PHCC after the organization had gone through ACI accreditation. Appendix J contains details on the accreditation project at PHCC.

This chapter aims to interpret the results of the study, and relate them to the existing body of literature while pointing out to the contribution and worth that the study brought. The researcher also relates the findings to the conceptual framework followed in this study, highlighting implications for social change and recommendations for future research for policy makers and healthcare professionals. In the conclusion, inferences that relate to accreditation programs, quality improvement, and organizational change and learning that can be beneficial to healthcare experts and researchers are emphasized.

The study used Pomey's (2003) framework to measure quality improvement and organizational learning as perceived by employees at PHCC and aimed at measuring employees' perception to answer research questions related to (a) the extent to which accreditation brings quality improvement changes and (b) the extent to which the introduction of an accreditation program fosters organizational learning. The study employed a quantitative study design, utilizing a cross-sectional survey to assess the

impact of accreditation on quality improvement and organizational learning after the attainment of accreditation status.

The results showed that the integration of accreditation generated improvements in quality in the organization. Also, the results indicated a significant association between accreditation and organizational learning as perceived by staff. In this chapter, the findings presented in chapter 4 are discussed in comparison with to the body of literature. The findings are also interpreted in the context of the conceptual framework and implications for social change. In addition, the limitations of the study and the recommendations for future research are presented.

Discussion and Interpretation of Findings

Research Question 1: Impact of ACI Accreditation on Quality Improvement

The first research question addressed what extent the introduction of accreditation brought quality improvement changes in the corporation. Analysis done on the quality of care and accreditation impact led to answering this research question.

Quality of care. For the quality of care section, interpretation of findings under the seven components, leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results, and customer satisfaction showed that employees provided considerably high ratings since all scores had a high value ranging between 3.79 and 4.03. The reading of the scores suggested that the areas of strengths under quality of care were leadership and quality results.

Consistent with the descriptions of the mentioned scales (Shortell, 1999), a high score on leadership showed that the leaders of the organization had strong focus and

emphasis on quality values and that quality values were integrated in the management system of the organization. Quality result scores indicated that the organization achieved significant improvements in quality and performance in the care provided to clients as well as in administrative areas like finance and human resources.

The areas of weakness were customer satisfaction and human resource utilization. Using a scale of 5, the customer satisfaction score (3.79) showed that PHCC could do better in assessment of patient needs and expectations and in addressing patients' complaints. The human resource utilization scale score (3.67) indicated that employees did not perceive themselves as receiving adequate training and education on quality improvement (Shortell, 1999).

Demographic results under the quality of care section showed that gender, age, and years in the organization had no discrepancies in the scores (Table 4). There were major differences between the responses of employees who were working at the HCs and those who were working at the HQs. Those stationed in the HCs, the frontline employees, had more favorable responses than the management team stationed at the HQs. These findings showed that frontline staff was more satisfied with the quality of care at PHCC than management, perhaps due to management's continuous scanning for areas of improvement and continual quest for improvements.

Interpretation of the involvement in accreditation scores in relation to quality of care scores showed that ratings of accreditation involvement were linked to ratings of quality of care. Employees who were involved in accreditation had more favorable perception of quality. Specifically, there was a significant difference between employees

who were involved in accreditation and those who were not for the information and analysis, human resource utilization, quality management, quality results, and customer satisfaction scales.

Comparison between accreditation and quality showed that whenever employees were involved in accreditation work, they had a better perception about areas in quality relating to leadership, finance, continuous quality improvement efforts, and collection of data and measurements. These results led to the conclusion that accreditation did influence the development of quality improvement practices at the organization and thus had a positive impact on quality. The findings complemented what was stated in the literature about the positive impact of accreditation on quality improvement, as explained in further details below (Alkhenizan and Shaw, 2011; Beaumont, 2002; Lanteigne, 2009; Pomey, 2003; Salmon et al., 2003;and Snyder and Anderson, 2005).

Accreditation impact. For the accreditation impact section, results showed that, overall employees agreed on the positive impact of accreditation on the organization. Interpretations of the findings showed that: (a) employees were aware of and involved in the changes that were happening in preparation for accreditation (a score of 4.21), (b) they were aware of the recommendations (a score of 4.11), (c) they saw the benefit of accreditation in improving the quality of care, in the values shared in the organization, as well as in the use of internal resources (a score of 4.22), (d) they were confident in accreditation's positive impact on addressing issues brought in by external factors like population needs and working with external stakeholders (a score of 4.09) , and (e) they

believed that the organization was more responsive to change due to accreditation (a score of 4.32).

Demographic interpretations under this section showed that there were no discrepancies under the gender, age, or years in the organization except for the preparation phase (Table 6), where employees who had been in the organization for more than 10 years had more favorable responses, perhaps due to the fact that they had been wanting to see changes happening in the organization. Similar to the quality of care section, under the work location category, HCs employees had more positive responses than the employees at HQs. Front line staff employees were more favorable about accreditation than the management team. Employees had a more positive perception towards accreditation than those who were not involved in accreditation. Comparison between employee involvement and accreditation indicated that whenever employees were involved in accreditation work, they were more confident about the positive changes accreditation brought during preparation, implementation, and recommendation phases. Moreover, the correlation analysis between accreditation and quality of care sections was very strong confirming that employees at PHCC perceived accreditation to be a valuable tool that triggered recent quality improvements at the organization.

These findings were in line with the literature review which showed a positive correlation between accreditation and quality as stated by Baker (1997), who suggested that there was a prevalence of quality programs during the 3 years preceding accreditation in hospitals. Beaumont (2002), determined that there was a direct relationship between adopting quality programs and working on accreditation. Results of

this study provided support to Snyder and Anderson (2005) who found that improved compliance of healthcare organizations with the requirements of accreditation was a tangible indication of the organizations' effectiveness.

The findings also showed a link between accreditation and strategic quality planning and which correlated with Lanteigne's (2009) literature about the effect of accreditation on causing changes that influence relational and strategic changes in organizations. Alkhenizan and Shaw (2011) also encouraged health professionals and organizations to pursue accreditation since accreditation proved to be a motivation tool that supports the quality of health services (Alkhenizan & Shaw, 2011). Salmon et al., (2003) also stated that hospitals who were working on accreditation showed a higher compliance rate with quality standards in comparison to hospitals that were not working on accreditation.

The results corresponded with the components of the conceptual framework which relates to strategic transformations. The findings of this study indicated that PHCC had progressed in areas relating to knowledge building and organizational learning as well as to quality and performance. As denoted in the framework, knowledge acquired through accreditation produces a strategic impact on the organization (Pomey, 2003) and results in organizational transformations relating to many components including performance and quality. The conclusions were also consistent with the views of El-Jardali et al. (2008), who stated that accreditation is a tool that provokes improvement initiatives to enhance the quality, efficiency, and effectiveness in healthcare organization and that comprises assessing structures, processes and outcomes.

Results of this research showed that employees who were involved in accreditation work had better perception of accreditation's overall impact. This finding agrees with Greenfield and Braithwaite (2009) and Rheaume (2001) who found out that accreditation was shown to be effective whenever there were strong involvement and commitment from staff. These results also aligned with the benefits of accreditation listed by ACI (2009). Analysis of the results indicated that employees saw the benefit of accreditation in strengthening teamwork and cooperation which was in line with Greenfield et al. (2011) stated that healthcare professionals were found to be supporters of accreditation and considered the process as an effective quality improvement tool that reinforced transparency and team work. However, the results are also in line with the concern raised by Sack et al. (2011) about customer satisfaction. Sack et al. (2011) found that successful accreditation was not associated with better quality, as revealed by the view of the patients.

Greenfield, Pawsey and Braithwaite (2012), argued that improvement initiatives were only observed when organizations were preparing for the survey.; The initiatives did not have a long lasting effect over time, which contradicted what is generated in this study especially that this research was conducted after one year of attainment of accreditation (Greenfield et al., 2012). The study also conflicted with the findings of Sack et al. (2011) who argued that implementation of accreditation standards did not provide evidence of improvement in quality, which likewise was an absolute opposition of the findings of this study.

As just verified in previous section, there is evidence in the literature about the positive impact of accreditation on healthcare organizations and there is also evidence that shows that there is a noticeable effect of accreditation on quality. However, none of the mentioned studies assessed accreditation in a primary care setting in the Middle East, and none used the same methodology or had the same diverse multicultural target audience as this study.

Now looking at the studies that were conducted in the Middle East in a primary care setting, there were still differences in many aspects like the organizational structure, size and demographics, and the research methodology. For example, Abdel-Razik et al. (2012) conducted a study in Egypt to compare quality results between services that went through accreditation and services that did not go through accreditation. Results showed that there were no major discrepancies between the two, indicating that accreditation had no effect on quality and contradicting the findings of this this research (Abdel-Razik et al., 2012).

El Jardali et al. (2014) stated that accreditation did show improvements in quality of health services in a recent study conducted in Lebanon in the primary care HCs in the country. El Jardali et al. (2014) found out that accreditation did have a positive impact on quality as well as on customer satisfaction. These results are in support of this research infereces on quality; however, they contradict with the customer satisfaction's results since it was found in this study that accreditation did not significantly affect customer satisfaction (El-Jardali et al., 2014).

Based on the above stated analysis and in reference to the literature review findings, results showed that this research was in agreement with what was stated in the literature about the impact of accreditation on quality improvement, and it also revealed the importance of involving employees in accreditation and in quality improvement related activities. Not only was this research in agreement with what was stated in the literature, it also did add to the body of research, since other studies were not conducted in a multi-diverse setting, nor did they use the same methodology or assess accreditation impact on organizational learning.

Research Question 2: Impact of Accreditation on Organizational Learning

The second research question addressed in the study asked about the extent to which accreditation fosters organizational learning.

Organizational learning was evaluated through investigating the culture types in terms of the contextual factors in the learning process and through analyzing the findings under accreditation impact. Additionally, correlations were drawn between accreditation and the four culture types: group, developmental, hierarchical and rational.

Organizational culture. As stated by Shortell et al. (1995), culture is defined as the values, beliefs, and norms of an organization that shape its behavior. For each of the questionnaires' subsections under culture, there are questions that correspond to one of the four culture types: group, developmental, hierarchical, and rational (Quinn & Kimberely, 1984). An organization is not likely to exhibit only one of the four culture types, although one employee might characterize the organization as one type.

Organizations are likely to be a combination of the culture types and, exhibit some features of each type (Shortell et al., 1995).

According to the results of the culture questionnaire, the two dominant cultures at PHCC were group, with a score of 28.61, and hierarchical, with a score of 26.59. Employees perceived PHCC to have affiliations, team work, and participation (group culture) but also had certain embedded norms and values that were associated with bureaucracy (hierarchical culture). The other two culture types, developmental and rational were 21.82 and 22.98 respectively. The predominant group culture revealed the organization as a personal place where employees had high commitment and loyalty, and managers were very caring and focusing on employees' growth and development. The hierarchical culture was the second predominant choice and this set the organization as a very formalized and structured place governed by bureaucratic procedures and rigid policies, and characterized by permanence and efficient operational procedures.

Demographic interpretations under this section showed that there were no discrepancies except for the following: employees who were less than 45 years ($p = 0.02$) had more favorable responses in regards to the rational culture than older employees. Employees who had been working for less than 10 years ($p = 0.03$) were leaning towards hierarchical culture more than employees who had been working for longer than 10 years, perhaps employees who had been working for a long time did not label the culture as hierarchical since they had a stronger sense of belonging and felt more like a team (Table 11). It also might be that due to the diverse global make-up of the employees at PHCC, it takes them a longer time to acculturate.

Under the work location category, HC employees ($p = 0.02$) perceived the organization culture as developmental more than HQ employees, whereas employees at the HQs viewed the culture as hierarchical ($p = 0.01$). Employees who occupied a managerial position ($p = 0.03$) viewed the organization culture as hierarchical more often than employees who did not occupy a managerial post. This might be due to the centralization of the management at the level of the HQs where major decision making took place and managers were aware of that.

Shortell (1995) argued that a significant commitment to a culture that stresses on empowerment, autonomy and risk- taking is essential for quality improvement. Thus, cultures that emphasize *group* and *developmental* components should help promote quality improvement implementation efforts. The *group* culture results at PHCC indicated that the organization nurtured a culture which supported quality improvement. This result was in line with the quality results score which was high. These results complemented what is stated in the literature about the ability of healthcare organizations that embrace certain characteristics like teamwork, communication, group affiliation, to demonstrate a broader adoption of quality improvement strategies (Rundall, et al., 2002). Kreitner (2004) observed that accreditation can create an organizational culture committed to the continuous improvement of skills, teamwork, processes, product and service quality, and customer satisfaction, which complemented what this research generated in relation to accreditation's positive impact on organizational learning, but contradicted with what was revealed about customer satisfaction in relation to

accreditation since, as mentioned previously, one area of weakness at PHCC was customer satisfaction.

On the other side, there were also high score results in some areas relating quality to culture perception. For example, positive high score results of the leadership quality scale, which relates to the extent to which quality values are integrated in the management system of the organization, was in line with the culture results, which indicated that the organization's culture was a mix all four types, with the group type being the highest.

Also, the human resource utilization scale score indicated that about 75% (see Table 4) of the employees perceived themselves receiving adequate training and education on quality improvement. These results supported the culture section results, which showed that the organization's culture was divided between all four types (with the group type being the highest), where both group and developmental cultures emphasized on the development of human resources (Quinn and Kimberely, 1984).

Analysis of accreditation and culture correlation, showed a positive association between staff perception of accreditation and the perception of culture type whenever the culture was identified as group. For the hierarchical culture, there was negative correlation between the perception of accreditation and the perception of culture types. This showed that employees who were positive about accreditation perceived the culture to be of a group type, that is, they were part of a team, and they had the potential to affect quality, patient care, policy and management. They felt that they belonged to the organization. Further analysis on the scores showed that employees who were involved in

accreditation had a higher score of 29.04 for group culture in comparison to those employees who were not involved in accreditation whose score was 27.84. These findings lead the researcher to conclude that accreditation had a positive impact on culture and, thus, on organizational learning.

Then again, correlation between accreditation and the seven scales under quality of care was positive indicating a positive impact on areas relating to leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results and customer satisfaction. This discussion lead to the conclusion that accreditation did influence organizational learning in those areas as well.

This positive impact of accreditation on organizational learning indicated that the organization had enhanced its capabilities to produce certain desirable outcomes, and that it had the potential to institutionalize those capabilities through its employees. As a result change, learning and becoming accustomed to changing conditions had become a routine, and as a result the organization developed a culture of learning (Senge, 1990b).

These findings lent evidence to the conceptual framework specifically the action strategy component. According to Pomey (2003), the action strategies are an indication on the kind of culture prevailing in the organization, for example, whether there is high commitment among employees towards cooperation and teamwork. As implied in the framework, when organizations work on accreditation, they embark on major action strategies for the purpose of changing the current situation and bringing it to higher quality standards, as per the accrediting organization requirements (Lanteign, 2009; Pomey, 2003).

The study findings also lent evidence to what was stated in the literature about accreditation being a tool that aimed at both the acquisition of knowledge and the enhancement of the quality of services as stated by Touati and Pomey (2009), Flodgren, Pomey, Taber and Eccles (2011), Scrivens, (1997) and Beaumont (2002). Also, according to Lozeau et al. (2002), this new tool of change fits into the organizational change framework that is into the factors affecting change. In this context, accreditation is considered as a management tool (or technique) that provokes change in the same sense that a quality program or a new strategic plan would bring about changes (Denis et al., 2000). In addition to what have been just mentioned, and as stated by ACI (2013), organizational learning is acknowledged by accreditation programs and is apparent in accreditation standards, which include criteria that address organizational learning practices as one of its main requirements.

The results of this study indicated that accreditation triggered major changes in the organization at both quality improvement and organizational learning levels, thus emphasizing the importance of accreditation as a main step towards improving the quality of primary care delivery. Furthermore, not only did this research complement other studies' findings, it did also add to the body of literature that the positive impact of accreditation in relation to quality improvement and organizational learning was definite in a primary care setting, since most of the evidence previously found in current literature related to acute care settings. In particular, this study gives research an indication on the importance of employee involvement in accreditation and in promoting a culture that

supports quality improvement and that allows employees to feel that they have a sense of belonging to the organization.

Limitations of the Study

Several limitations were identified in this study. The limitations related to employees background, language competency, organization culture, social desirability, technical problems, the target population and demographics, as well as to the context in which quality was assessed.

Since the research results were based on employees' perceptions and attitudes, this could be a limitation since the degree to which the assumptions were reliable was dependent on the validity of staff conclusions. Moreover, the organization culture in itself could be a limitation since employees might tend to speak of the positives to give the good impression about their organization.

Employees English language competency could be a limitation too since most of the employees were not English native speakers; and thus, they might have misinterpreted some words and expressions especially that the mix of staff at PHCC came from different cultures and countries. The misinterpretation of the words could be due to different understanding based on employees' language competency and/or on their previous experiences in other settings and cultures since most of employees were expatriates coming to Qatar from different countries, including Canada, the UK, South Africa, Lebanon, India, Philippines, Jordan, Syria, Egypt and other counties.

On the other side, since the survey was shared with employees who were competent in English, this was considered as a limitation since other employees who

were involved in accreditation were excluded, and thus their valuable opinion was missed. In addition to this, the majority of the respondents were young females holding a non- management position and employed for less than 10 years and this does not reflect opinions of all staff. Finally, the target population in this study was employees only, thus the results were based on perception of staff, and so did not reflect clients' opinions' in the quality of services they received.

Social desirability bias might be a limitation as well, although a detailed message was sent out to all potential participants explaining the anonymity of the survey. The fact that the research was conducted by the accreditation manager at the organization might have influenced the responses, that is, staff responses might have leaned towards the positive as favored by the quality department. Moreover, during the time of the survey, the researcher received several concerns in regards to technical problems like being taken out of the survey upon hitting the "next button". Investigation of the Information Technology (IT) team showed that this was happening due to the added security to PHCC internet. This issue was considered as a limitation since it might have contributed to fewer and/or incomplete responses. Generalizability of the study could also be reflected as a limitation since the research was restricted to twenty-one HCs in one country. Results of the study may not be applicable to other types of healthcare organizations.

Quality of care in this study was assessed based on employees' perception of quality and not on measures that related to management processes or clinical outcomes. The sole source of data was employees own judgment and view on the different scales under quality of care as presented in the questionnaire. What could add more strength to

the research is supplementing this set of data with measures of performance and outcomes of quality projects.

Recommendations

This research provides evidence on the existence of a positive relationship between accreditation and the resulting quality improvement and organizational learning in a healthcare setting. Results obtained through this study serve to provide several recommendations. The following are some recommendations for health care administrators and researchers.

Recommendations for Healthcare Administrators

Accreditation programs can be real sustainable tools for health organizations. Accreditation can provide guidance and support to organizations as they work on improvement. It is not for organizations to strive for perfection in achievement of standards and other accreditation program requirements. This is unrealistic, or at least this has not yet been observed. Organizations should instead use accreditation programs as a frame of reference that allows them to constantly question the systems and practices in place and assess their relevance.

Leadership qualities are essential for a successful accreditation endeavor. By contrast, these qualities do not necessarily have the same value in all organizations. The value of the qualities varies according to other criteria that are specific to the organization. Despite the many constraints and challenges, healthcare leaders still show interest in accreditation. It is recommended, however, that healthcare administrators seek to know how to maximize performance through increased knowledge about this venture

to improve organizational skills in improving quality and safety of health services. Results relating to employees training indicated that the organization's managers should emphasize on staff training to improve staff's awareness on quality improvement interventions.

On the other side, the positive perception of employees about both accreditation and quality of care is an indication of the importance of involving employees in accreditation, at all stages, starting from the preparation phase until the recommendations and maintaining compliance with the requirements phase, and is also an indication of the importance of having a group culture that allows employees to feel that they are taking part in major changes happening and that they have a sense of belonging to the organization.

Inferences generated in regards to culture change and organizational learning showed the positive correlation between *group* culture and accreditation and quality of care, as reported by staff. The researcher recommends that in order for health organizations to succeed in accreditation, they should value the importance of having a culture that supports quality improvement such as a *group* culture type, the predominant culture type found at PHCC.

Accreditation could provoke a culture that reinforces change and improvement; however, administrators should seek to sustain such changes by making quality improvement a continuous practice (Kreitner, 2004). Healthcare administrators should also consider the establishment of mechanisms that facilitate the integration of the accreditation program in organizations. Successful organizations have endured significant

organizational changes and have also developed knowledge at all levels of the accreditation cycle (Lanteign, 2009).

Recommendations for Future Research

The case study seemed well suited to the demands of accreditation programs in the methodology used for this research, however; research on accreditation should not be limited to this approach or to quantitative research types. Other methodologies must be explored. Accreditation bodies and organizations have to study impact of accreditation programs from a historical and longitudinal perspective.

A cross-sectional design was adopted in this research, in which data was collected at a single point of time. It is recommended that the research is replicated using a longitudinal study design so that changes over time are observed. Especially because the correlation between accreditation and culture type was not highly significant, tracking the change over a longer period of time will add more thorough understanding of the sustainability of the change provoked by accreditation. In addition, it would be very valuable to run the study in an organization prior and post to attainment of accreditation. It is also recommended that the study be conducted in both accredited and non-accredited primary care organizations and comparisons are generated to assess the differences in staff perceptions towards accreditation.Very few organizations are able to exploit the full potential of accreditation programs. Organizations, which succeed, appear to demonstrate superior capabilities of adaptation. Conversely, organizations that have chronic difficulties in terms of accessibility and quality of services usually record disappointing results in their accreditation visit (Lanteign, 2009). It would be very valuable to assess the

difference in capabilities between organizations that succeed and those that fail in accreditation.

It is not sufficient that an organization enrolls in an accreditation program to build capacity and ensure sustainability. Several conditions must be met before changes become a reality of quality improvement. An interesting area of research would be to assess the conditions under which the accreditation program can be a strategic tool that targets organizational change and learning.

There is a good body of research that shows evidence on the positive effect of accreditation programs on clinical outcomes in an acute care setting (Alkhenizan & Shaw, 2011), researchers are encouraged to conduct similar studies in a primary care setting to add stronger evidence on the impact of accreditation in primary care. Along these lines, there is not enough evidence that shows accreditation programs as a powerful tool for improving performance measures and indicators (Greenfield et al., 2012), there is a need to strengthen research efforts in this area as well to assess the added value of accreditation through performance measurement and indicators like customer satisfaction and human resources measures, especially that those specifically were least affected by accreditation according to the results of this study.

This study was limited to primary care and specifically to a small number of HCs in a specific geographic area. To reinforce generalizability of the results, there is a need to reproduce this study in different primary care system structures and also in different cultures and settings and perhaps with a wider sample that includes a more even demographic representation of employees especially that in this study, the majority of the

respondents were young females holding a non- management position and employed for less than 10 years, and thus did not reflect opinions of all staff. A very interesting area of research would also be on what it takes to create any kind of organizational culture in a place that holds a multicultural staff with vastly diverse values and experiences like the case of PHCC.

Implications for Social Change

Accreditation, as a tool for quality improvement, aims at benchmarking health services to quality standards and encourages improvement initiatives that raise the bar in quality and patient safety. Such improvements spill-over to communities and create a positive change at the level of the health of the people, creating healthier societies and contributing to positive social change. The results of this study provide a solid indication of the significant impact of accreditation on the quality of services offered to the communities served by the PHCC.

Results of this study also provide important perceptions on the possible changes that organizations might go through in regards to quality improvements and organizational learning. The results could help healthcare professionals better prepare for a smooth accreditation process and eventually contribute to positive social changes in healthcare organizations that are preparing for accreditation.

This research should, also, encourage healthcare leaders and policy makers to assume accreditation as a tool to improve quality and enhance organizational learning. The contribution of the study in this regard is of particular importance in developing countries in the region, especially that minimum resources are devoted to quality improvement and

pertinent accreditation initiatives. Healthcare leaders and legislators and government leaders should now be more motivated to devote the needed budget for quality improvement and accreditation and perhaps influence the establishment of a national accreditation body to encourage and maybe mandate healthcare organizations to seek and attain accreditation. Furthermore, attainment of accreditation would yield to a positive social change effect, since accreditation helps both the organization and its employees to gain a better status and build a stronger trust with the community. The country itself would gain status as well for raising the level of the quality of healthcare provided for its people.

Conclusion

Challenges in the healthcare system are rising rapidly all over the world. A review of literature showed that the rapid growth in healthcare is associated with substantial costs to keep up with new advancements and to improve quality. Accreditation has offered a potential solution to improve the quality and learning of healthcare systems in countries all over the world including the Middle East. There is little evidence; however, in the literature about the benefits and effectiveness of accreditation programs in improving the quality of healthcare services or organizational learning in primary healthcare organizations in the Middle East.

In order to determine the impact of accreditation on quality and organizational learning, a holistic study was conducted in twenty-one primary healthcare centers in the State of Qatar. The study aimed at determining whether quality improvement and organizational learning were enhanced due to attainment of accreditation. The results

showed that accreditation had a positive impact on the quality of care, as reported by PHCC employees, including areas relating to leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results. In addition, the results supported the notion that accreditation is a drive for organizational learning.

This study was valuable since it addressed an under-researched area in the Middle East especially that it was conducted in a primary health care setting. Over and above this, there was no extensive body of research on the impact of accreditation on primary care organizations. What made this study even more exclusive is that it tackled the primary care sector in the State of Qatar and there was no literature on any kind of research that was conducted for the same purpose in the country.

Learning from this study should provide a wealth of information on the possible changes that organizations might go through as they prepare for accreditation. It is expected that the study will also encourage policy makers and health administrators to seek accreditation as a means to apply quality interventions and enhance organizational learning.

Primary care in Qatar in particular and in the Middle East in general has a potential to expand services and improve outcomes. However, to achieve these objectives, there should be a stronger focus on quality and accreditation and primary care organizations should receive the necessary support and encouragement from healthcare leaders in the country. This will help strengthen the quality care delivery and the organizational learning endeavors in the region. There is also a need to build the capacity

of primary care organizations to allow them to embed a culture of quality improvement and have a continuous state of accreditation readiness for accreditation.

References

Abdel-Razik, M., Tawfik, A., Abdel-Razak Hemeda, S., El-Rabbat, M., Abou-Zeina, H., & Abdel-Latif, G. (2012). Quality of primary health care services within the framework of the national accreditation program. *Australian Journal of Basic and Applied Sciences, 6*(3), 12-18.Agency for Healthcare Research and Quality. (1997). Research Activities, No. 204. Retrieved from http://www.ahrq.gov/research/may97/

Accreditation Canada. (2008). *Leading the movement for quality care, 1958-2008*. http://www.conferenceboard.ca/Libraries/NETWORK_PUBLIC/SHRMC_AccreditationCanada.sflb

Accreditation Canada International. (2008a). Accreditation recognition guidelines. Retrieved from http://www.internationalaccreditation.ca/Accreditation/AccreditationProgram/qiap.aspx

Accreditation Canada International. (2009). The value and impact of accreditation in health care: A review of the literature. Retrieved from http://www.accreditation.ca

Accreditation Canada International. (2010a). Membership guidelines for Qmentum International self-assessment teams. Retrieved from http://www.accreditation.ca

Accreditation Canada International. (2010b). Qmentum International accreditation program. Retrieved from http://www.internationalaccreditation.ca/Accreditation/AccreditationProgram/qiap.aspx

Accreditation Canada International. (2010c). Accreditation recognition guidelines. Retrieved from http://www.internationalaccreditation.ca/Accreditation/AccreditationProgram/qiap.aspx

Accreditation Canada International. (2013a). Accreditation program. Retrieved from http://www.internationalaccreditation.ca/accreditation/accreditationprogram.aspx

Accreditation Canada International. (2013b). Organizational portal. Retrieved from http://www.internationalaccreditation.ca/Accreditation/AccreditationProgram/OrganizationalPortal.aspx

Accreditation Canada International. (2013c). History. Retrieved from http://www.internationalaccreditation.ca/aboutus/history.aspx

Al-Awa, B., De Wever, A., Melot, C., & Devreux, I. (2011). An overview of patient safety and accreditation: A literature review study. *Research Journal of Medical Sciences, 5*, 200-223. doi: 10.3923/rjmsci.2011.200.223.

Alkhenizan, A., & Shaw, C. (2011). Impact of accreditation on the quality of healthcare services: A systematic review of the literature. *Annals of Saudi Medicine, 3*(14), 407–416. doi: 10.4103/0256-4947.83204

Alkhenizan, A., & Shaw, C. (2012). The attitude of health care professionals towards accreditation: A systematic review of the literature. *Journal of Family and Community Medicine, 19*(2), 74-80. doi: 10.4103/2230-8229.98281

Al Tehewy, M., Bssiouni, S., Habil, I., & Okda, S. (2009). Evaluation of accreditation program in nongovernmental organizations' health units in Egypt: Short-term

outcomes. *Int J Qual Health Care, 21*(3), 183-189. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/19439444

Amagoh, F. (2008). Perspectives on organizational change: systems and complexity theories. *The Innovation Journal: The Public Sector Innovation Journal*, *13*(3), 1-14. Retrieved from http://www.innovation.cc/scholarly-style/amagoh3dec2008jag2rev1.pdf

Babbie, E. (1998). *The practice of social research* (8th ed.). Belmont, CA: Wadsworth Publications.

Babbie, E. (2000). *The practice of social research (9th ed.).* Belmont, CA: Wadsworth Publications.

Babbie, E. (2010). *The practice of social research (12th ed.).* Belmont, CA: Wadsworth Publications.

Baker, R. (1997). *Survey on Continuous Quality Improvement in Healthcare*. Toronto: Department of Health Administration, University of Toronto.

Baskind, R., Kordowicz, M., & Chaplin, R. (2010). How does an accreditation programme drive improvement on acute inpatient mental health wards? An exploration of members' views. *Journal of Mental Health, 19*(5), 405–411. J Ment Health. 2010 Oct;19(5):405-11. doi: 10.3109/09638230903531118.

Batalden, P., Stevens, D., & Kizer, K. (2002). Knowledge for improvement: Who will lead the learning? *Quality Management in Health Care, 10*(3), 3–9. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/12512459

Beaumont, M. (2002). *Overall effectiveness of the accreditation program for organization: Canadian Council on Health Services Accreditation (CCHSA): Effectiveness and role in CQI Evolution*. University of Montreal, Department of Health Administration, Canada.

Benn, M.C. (1998). Accreditation: the result is worth the investment in time and money. *World Hospitals and Health Services, 36*(2), 21-22.

Bernstein, D. A., Clarke-Stewart, A., Penner, L.A., Roy, E. J., & Wickens, C. D.(2002). *Psychology* (6th ed.) Boston: Houghton-Mifflin Company.

Boreham, N., & Morgan, C. (2004, September). A sociocultural analysis of organizational learning. *Oxford Review of Education, 30*(3), 307-325.

Borkowski, N. (2009). *Organizational behavior, theory, and design in health care*. Sudbury, MA: Jones & Bartlett Publishers.

Braithwaite, J., Vining, R., & Lazarus, L. (1994) The boundaryless hospital. *Australia New Zealand Journal of Medicine, , 24*, 565-571.

Braithwaite J., Greenfield, D., Westbrook, J., Pawsey, M., Westbrook, M., Gibberd, R., Naylor, J., Nathan, S., Robinson, M., Runciman, B., Jackson, M., Travaglia, J., Johnston, B., Yen, D., McDonald, H., Low, L., Redman, S., Johnson, B., Corbett, A., Hennessy, D., Clark, J., & Lancaster, J. (2010). Health service accreditation as a predictor of clinical and organizational performance: a blinded, random, stratified study. *Qual Saf Health Care, 19*(1), 14-21.

Braithwaite, J. (2009). Developing the evidence base for accreditation of healthcare organizations: a call for transparency and innovation. *Quality and Safety in Health Care, 18*(3), 162-163.

Bryant, S. W. (2004). *The JCAHO Survey Coordinator's Handbook* (5th edition). Massachusetts: HCPRO Publication.

Capacity Utilization. (n.d.). In Wikipedia. Retrieved from http://en.wikipedia.org/wiki/Surplus_capacity

Carroll, J., & Edmondson, A. (2002). Leading organizational learning in health care. *Quality and Safety in Health Care, 11*(1), 51-56.

Contandriopoulos, A. P., Champagne, F., Denis, J., & Pineault, R. (1993). The evaluation in the field of health concepts and methods. *Bulletin 33*(1), 12-17.

Cook, B., & Cook, L. (2008). Nonexperimental quantitative research and its role in guiding instruction. *Intervention in School & Clinic, 44*(2), 98-104.

Creswell, J. W. (2007). Q*ualitative inquiry and research design: Choosing among five approaches* (2nd ed.). London: Sage Publications.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Denis, J., Langley, A., & Pineault, M. (2000). Becoming a leader in a complex organization. *Journal of Management Studies, 37*(8), 1063-1100. doi: 10.1111/1467-6486.00217

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*, 1*4*(86), 1-10. doi: 10.1186/1472-6963-14-86.

El-Jardali, F., Jamal, D., Dimassi, H., Ammar, W., & Tchaghchaghian, V. (2008). The impact of hospital accreditation on quality of care: Perception of Lebanese nurses. *International Journal for Quality in Health Care, 20*, 363-371. doi: http://dx.doi.org/10.1093/intqhc/mzn023 363-371.

Fernandez, C. (2007). Emotional intelligence in the workplace. *Journal of Public Health Management & Practice, 13*(1), 80-82. Retrieved from http://uncch.pure.elsevier.com/en/publications/emotional-intelligence-in-the-workplace.

Finch, T., Mort, M., Mair, F., & May, C. (2008). Future patients? Telehealthcare, roles and responsibilities. *Health & Social Care in the Community, 16*(1), 86-95. doi: 10.1111/j.1365-2524.2007.00726.x.

Fiol, C. & Lyles, M. (1985). Organizational learning: *The Academy of Management Review, 10*(4), 803-813. Retrieved from http://www.jstor.org/stable/258048?seq=1#page_scan_tab_contents

Flodgren, G., Pomey, M.P., Taber, S.A., & Eccles, M.P. (2011). Effectiveness of external inspection of compliance with standards in improving healthcare organization behavior, healthcare professional behavior or patient outcomes. doi:http://dx.doi.org/10.1002%2F14651858.CD008992.pub2

Francis P. & Rheaume, J. (2001). Management systems of quality of care in hospitals in

Quebec, Ruptures, interdisciplinary. *Journal of Health, 8*(1), 2001, 6-26.

Fry D. (1990). Systems of standards for community health services in Australia. *Qual Assess Health Can, 2*, 59-67. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/2103872

Gitlow, H., & Melby, M. (1991). Framework for continuous quality improvement in the provision of pharmaceutical care. *American Journal of Hospital Pharmacy, 48*(9). Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/1928133

Greenfield, D., & Braithwaite, J. (2009). Developing the evidence base for accreditation of healthcare organizations: a call for transparency and innovation. *Qual Saf Health Care, 18*(3),162-163. Retrieved from http://qualitysafety.bmj.com/content/18/3/162.full.pdf+html

Greenfield, D., Nugus, P., Travaglia, J., & Braithwaite, J. (2010). Auditing an organisation's inter-professional learning and inter-professional practice: the interprofessional praxis audit framework. *Journal of Interprofessiona Care, Abingdon, 24*, 436-449. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20377396

Greenfield, D., & Braithwaite, J. (2008). Health sector accreditation research: a systematic review. *International Journal for Quality in Health Care, Oxford, 20*(3), 172-83. doi: 10.1093/intqhc/mzn005. Epub 2008 Mar 13.

Greenfield, D., Pawsey, M., & Braithwaite, J. (2012).The role and impact of accreditation on the healthcare revolution. *Acreditação,1*,1–14. Retrieved from

http://med.unsw.edu.au/publication/role-and-impact-accreditation-healthcare-revolution-o-papel-e-o-impacto-da-acredita%C3%A7%C3%A3o

Greenfield, D., & Braithwaite, J. (2009). Developing the evidence base for accreditation of healthcare organisations: a call for transparency and innovation. *Qual Saf Health Care, 18*(3), 162. Retrieved from http://qualitysafety.bmj.com/content/18/3/162.short

Greenfield, D., Pawsey, M., & Braithwaite, J. (2011). What motivates professionals to engage in the accreditation of healthcare organizations? *International Journal of Quality Health Care, 23*(*1*), 8-14. doi: http://dx.doi.org/10.1093/intqhc/mzq069 8-14

Griffith, J., Knutzen, S., & Alexander, J. (2002). Structural versus outcomes measures in hospitals: A comparison of Joint Commission and Medicare outcomes scores in hospitals. *Qual Manag Health Care, 10*, 29-38. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/11799828.Hadley, T., & McGurrin, M. (1988). Accreditation, certification, and the quality of care in state hospitals. *Hosp Community Psychiatry, 39*, 739-742. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/3165368

Hojjati, A., & Vahdani, A. (2010). Health care accreditation: the past, present, and future in the Middle East. *Iranian red crescent medical journal*, *12*(1), 80-81. Retrieved from https://www.scienceopen.com/document/vid/3d1c8306-c779-4946-b482-c298362cd7e9.

Ito, H., & Sugawara, H. (2005). Relationship between accreditation scores and the public disclosure of accreditation reports: a cross sectional study. *Quality and Safety in Health Care*, *14*, 87–92. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/15805452.

Johnson, B., & Christensen, L. (2004). *Educational research*. Boston, MA: Pearson Education, Inc.

Joint Commission on Accreditation of Healthcare Organization (JCAHO). (1991). Accreditation manual for hospitals, Volume I: Standards, ed, Oakbrook Terrace, Il. 1990, 218-221.

Jovanovic, B. (2005). Hospital accreditation as method for assessing quality in healthcare. *Oncology*, *13*, 156-157. doi:10.4103/2277-9531.139680

Katzfey, R. (2004). JCAHO's Shared Visions-New Pathways: The new hospital survey and accreditation process for 2004. *American Journal of Health-System Pharmacy*, *61*(13).

Kreitner, R. (2004). *Management (9th ed.).* Boston, Massachusetts: Houghton Mifflin Company.

Klitzma, R. (2013). How IRBs view and make decisions about coercion and undue influence. *Journal of Medical Ethics*, *39*(4), 224-229. doi: 10.1136/medethics-2011-100439.

Lanteigne, G. (2009). *Case studies on the integration of Accreditation Canada's program in relation to organizational change and learning: The Health Authority of Anguilla and the Ca'Focella Ospetale di Treviso.* (Doctorat en administration des

services de santé). Montréal : Faculté de médicine, Université de Montréal. doi: 10.4236/health.2015.79123.

Lemieux-Charles, L., Gault, N., Champagne, F., Trabut, I., Sicotte, C., & Zitner, D. (2000). *Use of mid-level performance indicators in determining organizational, hospita*l. Department of Health Administration, University of Toronto, Ontario, Canada. doi: 10.12927/hcq..16770.

Levitt, C., & Hilts, L. (2010). *Quality in family practice. Book of tools*. Hamilton (ON): McMaster Innovation Press.

Lewis, S. (2007). Accreditation in Health Care and Education: The Promise, The Performance, and Lessons Learned. *Raising the Bar on Performance and Sector Revitalization*. Access Consulting Ltd. Retrieved from http://www.hscorp.ca/resources/research/accreditation-in-health-care-and-education-the-promise-the-performance-and-lessons-learned/

Lozeau, D. (1996). The collapse of the quiet quality management: results of a study conducted in twelve hospitals in Quebec. *Ruptures*, *3*(2), 187-208.

Lozeau, D. (1999). Rituals and men: quality management in hospitals in Quebec. *Canadian Public Administration, 42*(4), 542-565.

Lozeau, D., Langley, A. & Denis, J., (2002). The corruption of managerial technologies by organisms. *Human Relations, 55*(5), 537-564.

Maguerez, G. et al. (2001). Evaluation of continuous improvement projects in 60 French Hospitals. *International Society for Quality in Health Care, 13*(2), 89-97. Retrieved from http://intqhc.oxfordjournals.org/content/intqhc/13/2/89.full.pdf

Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: The dimensions of the learning organization questionnaire. *Advances in Developing Human Resources, 5*(2), 132-151. Retrieved from http://adh.sagepub.com/content/5/2/132.short?rss=1&ssource=mfc.

McShane, S., Von Glinow, M. (2012). *Organizational behavior (6th Edition)*. New York, NY: McGraw-Hill Higher Education.

Milstein, A. (2009). Ending extra payment for "never events"–stronger incentives for patients' safety. *The New England Journal of Medicine, 360*(23), 2388–2390. Retrieved from http://search.proquest.com.ezp.waldenulibrary.org/docview/223910706

Montagu, D. (2003). *Accreditation and other external quality assessment systems for healthcare*. London: DFID Health Systems Resource Center.

Morrissey, J. (2002). *Changing the rules; dissatisfied with hospital accreditation process and with the icts high costs: the JCAHO Overhauls icts approach*. Chicago, Illinois: Modern Healthcare, Crain Communications, Inc.

Mosby, Inc. (2009). *Mosby's dictionary of medicine, nursing & health professions (9th ed.)*. Atlanta, GA: St. Louis, MO: Mosby/Elsevier.

National Leadership and Innovation Agency for Healthcare (2005). *Integrated care pathways: a guide to good practice*. Llanharan: NLIAH.

Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Learning. *Organization Science, 5*(1), 14-37. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1506395

Nouwens, E., Van Lieshout, J., Adang, E., Bouma, M., Braspenning, J., &Wensing, M. (2012). Effectiveness and efficiency of a practice accreditation program on cardiovascular risk management in primary care: study protocol of a clustered randomized trial. *Implementation Science, 7*(94), 1-8. doi:10.1186/1748-5908-7-94.

O'Beirne, M., Oelke, N., Sterling, P., Lait, J., Zwicker, K., Lewanczuk, R., Ghali, W., Robertson, H., & Korchagina , M. (2012). A Synthesis of Quality Improvement and Accreditation Mechanisms in Primary Healthcare. *Canadian Foundation for Healthcare Improvement*. Retrieved from http://www.cfhi-fcass.ca/sf-docs/default-source/reports/SynthesisQualityImprovement-OBeirne-E.pdf?sfvrsn=0.

Olayiwola, N. (2013). Qatar launches its national primary healthcare strategy. Gulf Times. Retrieved from http://www.gulf-times.com/qatar/178/details/354932/qatar-launches-its-national-primary--healthcare-strategy

Øvretveit, J., & Gustafson, D. (2003). Improving the quality of healthcare: using research to inform quality programmes. *British Medical Journal, 326*(7392), 759-761. doi: 10.1136/bmj.326.7392.759

Paccioni, A, Sicotte, C, Champagne, F (2008). Accreditation: a cultural control strategy. *International Journal of Health Care Quality Assurance, 21*(2), 146-158. Retrieved from http://dx.doi.org/10.1108/09526860810859012

Pettus-Davis, C., Grady, M. G., Cuddeback, G. S., & Scheyett, A. (2011). A practioner's guide to sampling in the age of evidence-based practice" Translation of research into practice. *Clinical Social Work Journal, 39*(4), 379-389. Retrieved from http://link.springer.com/article/10.1007%2Fs10615-011-0345-2#page-1

Pichoir, D. M. (2005). *CCHSA accreditation: A catalyst for change and a building block for social capital.* (Doctoral dissertation). Retrieved from ProQuest http://search.proquest.com/docview/305359699?accountid=14872

Pomey, M., Contandriopoulos, Francois, P., & Bertrand, D. (2004). Accreditation: a tool for organizational change in hospitals? *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services, 17*(2-3), 113-124. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/15301268.

Pomey, M. (2003). La préparation à l'accréditation : un outil de changement organisationnel ? Ed GRIS, Université de Montréal (Doctoral dissertation) http://www.santecom.qc.ca/Bibliothequevirtuelle/santecom/35567000001302.pdf

Pomey, M., Lemieux-Charles, L., Champagne, F., Angus, D., Shabah, A., & Contandriopoulos, A. (2010). Does accreditation stimulate change? A study of the impact of the accreditation process on Canadian healthcare organizations. *Implementation Science, 5*(31), 1-14. Retrieved from http://www.biomedcentral.com/content/pdf/1748-5908-5-31.pdf.

Primary Health Care Corporation (n.d.). *Corporate profile*. Retrieved from http://www.phcc.qa/portal/index/index.php?lang=en&type=2&page=5&id=35.

Quinn, R., & Kimberly, J. (1984). *Paradox, planning, and perseverance: Guidelines for managerial practice. Managing organization transitions.* Homewood, IL: Dow Jones-Irwin.

Riley, W., Moran, J., Corso, L., Beitsch, L., Bialek, R., & Cofsky, A. (2010). Defining quality improvement in public health. *Journal of Public Health Management Practice, 16*(1), 5-7. doi: 10.1097/PHH.0b013e3181bedb49.

Roberts, J., Coale, J., & Redman, R. (1987). A history of the Joint Commission on Accreditation of Hospitals. *JAM, 258*(7), 936-940. doi:10.1001/jama.1987.03400070074038.

Rundall, T., Shortell, S., Wang, M., et al. (2002). As good as it gets? Chronic care management in nine leading US physician organizations. *BMJ, 325*, 958–61. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/12399351.

Sack, C., Scherag, A., Lutkes, P., Gunther, W., Jockel, K., & Holtmann, G. (2011). Is there an association between hospital accreditation and patient satisfaction with hospital care? A survey of 37 000 patients treated by 73 hospitals. *International Journal for Quality in Health Care, 23*(3), 278–283. doi: 10.1093/intqhc/mzr011.

Saleh, S., Alameddine, M., Mourad, Y. Natafgi, N. (2015). Quality of care in primary health care settings in the Eastern Mediterranean region: a systematic review of the literature. *International Journal for Quality in Health Care; 44:355–72.* doi:http://dx.doi.org/10.1093/intqhc/mzu103

Saleh, S., Alameddine, M., Natafgi, N. (2014). Beyond accreditation: A multi-track quality-enhancing strategy for primary health care. *International Journal of Health Services; 44:355–72.* Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/24919309

Salmon, W.J., Heavens, J, Lombard, C., &Tavrow, P. (2003). The Impact of accreditation on quality of hospital care: KwaZulu-Natal Province, Republic of South Africa. Retrieved from http://www.hadassah-med.com/media/2021788/TheImpactofAccreditationonQofHospitalCare.pdf.

Scott, T., Mannion, R., Davies, H., Marshall, M. (2003a). Implementing culture change in health care: Theory and practice. *International Journal for Quality in Healthcare,* 111-118. Retrieved from http://dx.doi.org/10.1093/intqhc/mzg021.

Scott, T., Mannion, R., Davies, H, Marshall, M. (2003b). The quantitative measurement of organizational culture in health care: a review of the available instruments. *Health Serv Res*., *38*(3), 923–945. Retrieved from 10.1111/1475-6773.00154

Scrivens, E. (1997). Putting continuous quality improvement into accreditation: improving approaches to quality assessment. *Quality in Health Care, 6*, 212-218. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1055496/pdf/qualhc00026-0036.pdf.

Senge, P. (1990a). *The fifth discipline: The Art and Practice of the Learning Organization.* London: Century Business.

Senge, P. (1990b). The leader's new work: building the learning organization. *Sloan Management Review, 32*(1), 7-23.

Senge, P. (2006). *The fifth discipline: The Art and Practice of the Learning Organization (2nd edition)*. Century, London.

Senge, P. (2007). Collaborating for systemic change. *Sloan Management Review, 48*(2), 44-53. Retrieved from http://sloanreview.mit.edu/article/collaborating-for-systemic-change.

Shaw, C. (2000). External quality mechanisms for healthcare: Summary of the ExPeRT project on visitatie, accreditation, EFQM and ISO assessment in European Union countries. *International Journal of Quality Health Care, 12*, 169-175. doi: ttp://dx.doi.org/10.1093/intqhc/12.3.169

Shaw, C. (2002). Preparatory meeting on the impact of health services on a national health system, account of a working group. *WHO Geneva, 19*(21), 36.

Shaw, C. (2002a). Impact of accreditation on health systems. *WHO Geneva 19*(21), 10.

Shaw, C. (2003). Quality and accreditation in health services: a global review. WHO Geneva / ISQua, 209.

Shaw, C. (2003b). Evaluating accreditation. *International Journal Quality Health Care, 15* (6), 455-456. doi:10.1093/intqhc/mzg092

Shortell, S.M. et al, (1995). Assessing the impact of continuous quality improvement/total quality management: Concept versus implementation. *Health Services Research, 30*(2), 377-401. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1070069/

Scrivens, E., & Blaylock, P. (1997). *Developments in Accreditation in Primary Care.* Keele: Keele University.

Smith, M. K. (2009). Social capital. In the Encyclopedia of Informal Education. Retrieved from http://infed.org/mobi/social-capital/

Snyder, C., & Anderson, G. (2005). Do quality improvement organizations improve the quality of hospital care for Medicare beneficiaries? *JAMA, 293*(23), 2900-2907.

Supreme Council of Health (n.d.). *Healthcare Facilities Accreditation.* Retrieved from http://www.sch.gov.qa/about-sch/departments/healthcare-quality/healthcare-facilities-accreditation

Supreme Council of Health (2013). *Building the Foundation: National Primary Health Care Strategy 2013-2018*. Retrieved from http://www.sch.gov.qa/health-strategies/national-health-strategy

Szecsenyi, J., Campbell, S., Broge, B., Laux, G., Willms, S., Wensing, M., & Goetz, K. (2011). Effectiveness of a quality improvement program in improving management of primary care practices. *CMAJ, 183*(18), 326-333. doi:10.1503/cmaj.110412

Taylor, J. E. (2010). *Leading a change initiative to meet accreditation standards for a mental health care organization in eastern North Carolina, Regent University.* (Doctoral dissertation). Retrieved from http://gradworks.umi.com/34/15/3415595.html

Thomas, J. C., & Poister, T. H. (2009). Thinking about stakeholders of public agencies: The Georgia Department of Transportation stakeholder audit. *Public Organization Review*, *9*(1), 67-82.

Touati, N., & Pomey, M. (2009). Accreditation at a crossroads: are we on the right track? *Health Policy, 90*, 156–65. doi: 10.1016/j.healthpol.2008.09.007

Triola, M.F. (2011). *Essentials of Statistics, fourth edition.* Pearson Education: Boston.

World Health Organization (WHO). (1978). Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-Ata, USSR. Retrieved from http://www.who.int/publications/almaata_declaration_en.pdf

World Health Organization (WHO). (1992). The Contribution of Family Doctors/ General Practitioners to Health for All. Copenhagen. Geneva, Switzerland.

World Health Organization (WHO). (2003). Quality and accreditation in health care services, A Global Review (report). Geneva, Switzerland. Retrieved from http://www.who.int/hrh/documents/en/quality_accreditation.pdf

Weber, S. (2005). Learning organization: How does the CCHSA accreditation process help health care organizations to develop their learning processes? Ottawa: Library and Archives Canada.

Young, D. (2004). Pharmacist input increases with new JCAHO surveys. *American Journal of Health-System Pharmacy*, *61*(*10*), 978-980.

Zachariadou1, T., Zannetos, S., and Pavlakis, A. (2013). Organizational culture in the primary healthcare setting of Cyprus. *BMC Health Services Research*, *24* (13), 112. doi:10.1186/1472-6963-13-112

Zazzali J.L., Alexander, J.A., Shortell, S., M., et al. (2007). Organizational culture and physician satisfaction with dimensions of group practice. *Health Serv Res*, *42* (3), 1150–76. doi: 10.1111/j.1475-6773.2006.00648.x

APPENDIX A: MANAGEMENT QUESTIONNAIRE

A. QUALITY OF CARE

In this section, you will evaluate PHCC's involvement in the improvement of customers' quality of care. Read the following sentences and circle the appropriate answer (l= strongly disagree, 5= strongly agree).

When you answer these questions you must think of PHCC at the present time, after the attainment of ACI accreditation, and not how it was or how it will be.

Leadership (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
1.	The top leaders provide highly visible leadership in maintaining an environment that supports quality improvement.	1	2	3	4	5	9
2.	The top leaders are a primary driving force behind quality improvement efforts.	1	2	3	4	5	9
3.	The top leaders allocate adequate resources (e.g., finances, people, time, and equipment) to improving quality.	1	2	3	4	5	9
4.	The top leaders consistently participate in activities to improve the quality of care and services.	1	2	3	4	5	9
5.	The top leaders have articulated a clear vision for improving the quality of care and services.	1	2	3	4	5	9
6.	The top leaders have demonstrated an ability to manage the changes (e.g., organizational, technological) needed to	1	2	3	4	5	9

	improve the quality of care and services.						
7.	The top leaders act on suggestions to improve the quality of care and services.	1	2	3	4	5	9
8.	The top leaders are personally involved in quality improvement efforts.	1	2	3	4	5	9
9.	The top leaders have a thorough understanding of how to improve the quality of care and services.	1	2	3	4	5	9
10.	The top leaders generate confidence that efforts to improve quality will succeed.	1	2	3	4	5	9
11.	The top leaders seek information on needs and suggestions for quality improvement directly from external customers (e.g., patients, families).	1	2	3	4	5	9

Information and analysis (*circle the appropriate number*)

12.	The corporation collects a wide range of data and information about the quality of care and services.	1	2	3	4	5	9
13.	The corporation uses a wide range of data and information about the quality of care and services to make improvements.	1	2	3	4	5	9
14.	The corporation continuously tries to improve how it uses data and information on the quality of care and services.	1	2	3	4	5	9
15.	The corporation continuously tries to improve the accuracy and relevance of its data on the quality of care and services provided.	1	2	3	4	5	9
16.	The corporation continuously tries to improve the timeliness of its data on the quality of care and services provided.	1	2	3	4	5	9

17.	The corporation employees are actively involved in determining what data are collected for the purpose of improving the quality of care and services.	1	2	3	4	5	9
18.	The corporation compares its data to data on the quality of care and services at other corporations.	1	2	3	4	5	9

Strategic quality planning (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
19.	The corporation employees are given adequate time to plan for and test improvements.	1	2	3	4	5	9
20.	Each department and work group within this corporation maintains specific goals to improve quality.	1	2	3	4	5	9
21.	The corporation's quality improvement goals are known throughout the corporation.	1	2	3	4	5	9
22.	The corporation employees are involved in developing plans for improving quality.	1	2	3	4	5	9
23.	Middle managers (e.g., HC managers, section managers, project managers, and leads) play a key role in setting priorities for quality improvement.	1	2	3	4	5	9

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
24.	External customers play a key role in setting priorities for quality improvement.	1	2	3	4	5	9
25.	Non-managerial employees play a key role in setting priorities for quality improvement.	1	2	3	4	5	9

Human resources utilization (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
26.	The corporation employees are given education and training in how to identify and act on quality improvement opportunities.	1	2	3	4	5	9
27.	The corporation employees are given education and training in statistical and other quantitative methods that support quality improvement.	1	2	3	4	5	9
28.	The corporation employees are given the needed education and training to improve job skills and performance.	1	2	3	4	5	9
29.	The corporation employees are rewarded and recognized (e.g., financially and/or otherwise) for improving quality.	1	2	3	4	5	9
30.	Inter-departmental cooperation to improve the quality of services is supported and encouraged.	1	2	3	4	5	9

31.	The corporation employees have the authority to correct problems in their area when quality standards are not being met.	1	2	3	4	5	9
32.	The corporation employees are supported when they take necessary risks to improve quality.	1	2	3	4	5	9
33.	The corporation has an effective system for employees to make suggestions to management on how to improve quality.	1	2	3	4	5	9

Quality management (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
34.	The corporation regularly checks equipment and supplies to make sure they meet quality requirements.	1	2	3	4	5	9
35.	The quality improvement staff effectively coordinates its efforts with others to improve the quality of care and services the corporation provides.	1	2	3	4	5	9
36.	Data from suppliers are used when developing the corporation's plan to improve quality.	1	2	3	4	5	9
37.	The corporation has effective policies to support improving the quality of care and services.	1	2	3	4	5	9
38.	The corporation works closely with suppliers to improve the quality of their products and services.	1	2	3	4	5	9

39.	The corporation tries to design quality into new services as they are being developed.	1	2	3	4	5	9
40.	The services that the corporation provides are thoroughly tested for quality before they are implemented.	1	2	3	4	5	9
41.	The corporation views quality improvement as a continuing search for ways to improve.	1	2	3	4	5	9
42.	The corporation encourages employees to keep records of quality measurements.	1	2	3	4	5	9

Quality results (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
43.	Over the past few years, the corporation has shown steady, measurable improvements in the quality of customer satisfaction.	1	2	3	4	5	9
44.	Over the past few years, the corporation has shown steady, measurable improvements in the quality of services provided by the administration (finance, human resources, etc.)	1	2	3	4	5	9
45.	Over the past few years, the corporation has shown steady, measurable improvements in the quality of care provided to family medicine and specialty clinics patients.	1	2	3	4	5	9

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
46.	Over the past few years, the corporation has shown steady, measurable improvements in the quality of services provided by clinical support departments such as laboratory, pharmacy, and radiology.	1	2	3	4	5	9
47.	Over the past few years, the corporation has maintained a high quality despite obstacles and constraints.	1	2	3	4	5	9

Customer satisfaction (*circle the appropriate number*)

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
48.	The corporation does a good job of assessing current patient needs and expectations.	1	2	3	4	5	9
49.	The corporation does a good job of assessing future patient needs and expectations.	1	2	3	4	5	9
50.	The corporation employees promptly resolve patient complaints.	1	2	3	4	5	9
51.	Patients' complaints are studied to identify patterns and prevent the same problems from recurring.	1	2	3	4	5	9
52.	The corporation uses data from patients to improve services.	1	2	3	4	5	9
53.	Data on patient satisfaction are widely communicated to	1	2	3	4	5	9

	corporation staff.						
54.	The corporation does a good job of assessing physician satisfaction with corporation services.	1	2	3	4	5	9
55.	The corporation uses data on customer expectations and/or satisfaction when designing new services.	1	2	3	4	5	9
56.	The corporation does a good job of assessing employee satisfaction with services provided by other employees and departments.	1	2	3	4	5	9

B. PROFESSIONAL PARTICIPATION IN CORPORATION MANAGEMENT

The goal of this section is to examine the degree of participation of PHCC's administration, the perception that professionals have of being consulted in the administrative decision-making processes, as well as their degree of influence in the decision-making process. For each of the following questions, please circle the appropriate number.

When you answer these questions you must think of PHCC at the present time, after the attainment of ACI accreditation, and not how it was or how it will be.

		Never				Always
1.	Are you involved in administrative decisions concerning the following areas:					
a)	Budgets	1	2	3	4	5
b)	Human resources	1	2	3	4	5
c)	Professional practices	1	2	3	4	5
d)	Acquisition of new equipment and technologies.	1	2	3	4	5

		Never				Always
2.	Whenever you are consulted in the decision-making process, do you feel that your opinion is taken into consideration?					

		None				Very high
3.	How would you rate your level of participation in the corporation's management?					

		None				Very high
4.	How would you rate the level of participation of subject matter experts in the corporation's management?					

C. ACCREDITATION IMPACT

The goal of this section is to examine the impact of accreditation in terms of change dynamics at PHCC. For each of the following sentences, please circle the appropriate number.

When you answer these questions you must think of PHCC at the present time, after the attainment of ACI accreditation, and not how it was or how it will be.

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Don't know
1.	During the preparation for the ACI final survey, important changes were implemented at the corporation.	1	2	3	4	5	9
2.	You participated in the implementation of these changes.	1	2	3	4	5	9
3.	You learned of the recommendations made to your corporation since the last survey (if it's the case).	1	2	3	4	5	9
4.	These recommendations were an opportunity to implement important changes at the corporation.	1	2	3	4	5	9
5.	You participated in these changes.	1	2	3	4	5	9
6.	Accreditation enables the improvement of patient care.	1	2	3	4	5	9
7.	Accreditation enables the development of values shared by all professionals at the corporation.	1	2	3	4	5	9
8.	Accreditation enables the corporation to better use its internal resources.	1	2	3	4	5	9
9.	Accreditation enables the corporation to better respond	1	2	3	4	5	9

	to the population needs.						
10.	Accreditation enables the corporation to better respond to its partners (other corporations, diverse organizations, private clinics, etc.)	1	2	3	4	5	9
11.	Accreditation contributes to the development collaboration with partners in the health care system (other corporations, diverse organizations, etc.)	1	2	3	4	5	9
12.	Accreditation is a valuable tool for the corporation to implement changes.	1	2	3	4	5	9
13.	The corporation's participation in accreditation enables it to be more responsive when changes are to be implemented.	1	2	3	4	5	9

D. INFORMATION ABOUT YOURSELF

1. What is your gender?

Female ☐ Male ☐

2. What is your age?

Below 30 years ☐ Between 30 and 45 years ☐

Between 46 and 55 years ☐ Over 55 years ☐

3. What is your working status at this corporation?

Full time employee ☐

Consultant ☐

4. How long have you worked for or been associated with this corporation?

/_____/years_____/months

5. Which of the following areas are you primarily associated with?

PHCC Head Quarters ☐

PHCC HCs ☐

6. What is your occupation?

Clinical ☐
(physician/nursing/radiology/laboratory/pharmacy/dentistry)

Managerial ☐
(director/manager/section head/project manager/program manager)

Other Administrative role ☐

7. Are you a member of the Quality Management Department?

Yes ☐ No ☐

8. Have you been involved in the accreditation process?

Yes ☐ No ☐

APPENDIX B: CORPORATION CULTURE

These questions relate to the type of organization PHCC is most like. Each of these items contains four descriptions of organizations. Please distribute 100 points among the four descriptions depending on how similar the description is to PHCC. None of the descriptions is any better than the others; they are just different. For each question, please use all 100 points. For example: In question 1, if organization A seems very similar to mine, B seems somewhat similar, and C and D do not seem similar at all, I might give 70 points to A and the remaining 30 points to B.

When you answer these questions you must think of PHCC at the present time, after the attainment of ACI accreditation, and not how it was or how it will be.

CORPORATION CULTURE	
Organization Character	Organization Cohesion
Please distribute 100 points on the following four items. a. This corporation is a very personal place. It is a lot like an extended family. People seem to share a lot of themselves. Points for a. ☐ b. This corporation is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks. Points for b. ☐ c. It is a very formalized and structured place. Bureaucratic procedures generally govern what people do. Points for c. ☐ d. This place is very production oriented. A major concern is with getting the job done. People aren't very personally involved. Points for d. ☐	Please distribute 100 points on the following four items. a. The glue that holds the corporation together is loyalty and tradition. Commitment to this corporation runs high. Points for a. ☐ b. The glue that holds the corporation together is commitment to innovation and development. There is an emphasis on being first. Points for b. ☐ c. The glue that holds the corporation together is formal rules and policies. Maintaining a smooth running operation is important here. Points for c. ☐ d. The glue that holds the corporation together is the emphasis on tasks and goal accomplishment. A production orientation is commonly shared.

	Points for d. ☐
Organization's Managers	Organization's Emphasis
Please distribute 100 points on the following four items. a. Managers are warm and caring. They seek to develop employees' full potential and act as their mentors or guides. Points for a. ☐ b. Managers are risk-takers. They encourage employees to take risks and be innovative. Points for b. ☐ c. Managers are rule-enforcers. They expect employees to follow established rules, policies, and procedures. Points for c. ☐ d. Managers are delegators and coaches. They help employees meet the corporation goals and objectives. Points for d. ☐	Please distribute 100 points on the following four items. a. The corporation emphasizes human resources. High cohesion and morale in the corporation are important. Points for a. ☐ b. The corporation emphasizes growth and acquiring new resources. Readiness to meet new challenges is important. Points for b. ☐ c. The corporation emphasizes permanence and stability. Efficient, smooth operations are important. Points for c. ☐ d. The corporation emphasizes competitive actions and achievement. Measurable goals are important. Points for d. ☐

Thank you for your collaboration!

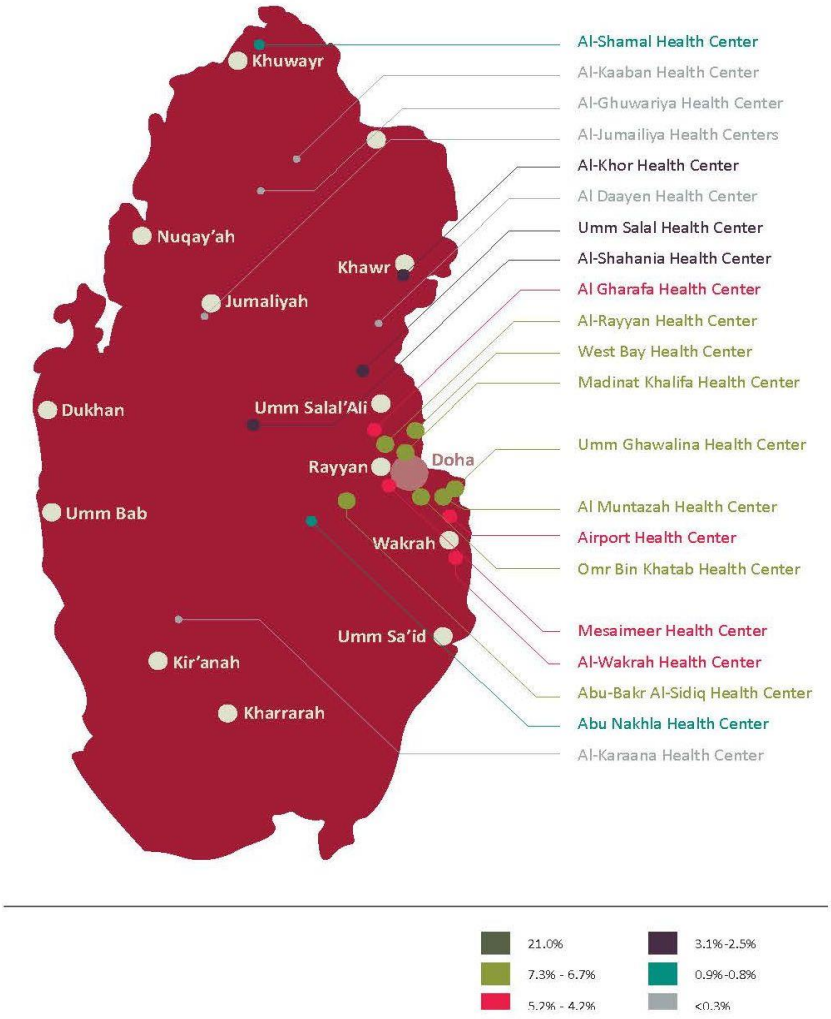
Feel free to write comments to the following email: abanna@phcc.gov.qa

APPENDIX C: PHCC PROVISION

Existing Primary Health Care Provision

The largest provider of existing primary health care in Qatar is the publicly-run Primary Health Care Corporation (PHCC). PHCC delivers services in 21 health centers that are spread over the country and have considerable differences in the number of visits they receive each year, as shown by the map in Figure 4.

FIGURE 4 - Existing PHCC Centers

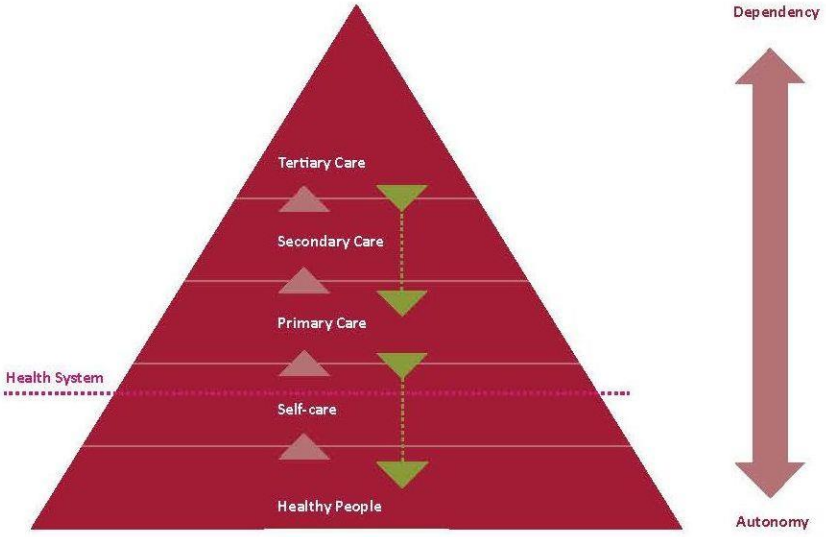


Percentages are of total PHCC visits 2011

Supreme Council of Health (2013). *Building the Foundation National Primary Health Care Strategy*. Retrieved from http://www.sch.gov.qa/health-strategies/national-health-strategy

APPENDIX D: TIERS OF PROVISION

FIGURE 1 - Tiers of Provision



Although, as the comparative table of international health systems on page 12 demonstrates, the services provided by primary health care vary, the typical components are outlined in Box 1.

Box 1 - Typical Primary Health Care Services

- Family Medicine (including care for NCDs and health promotion)
- Dentistry
- Opticians
- Pharmacy
- Care for common mental health problems
- Urgent (but non-emergency) care
- Screening

The full range of services are described more fully in Chapter 5.

Supreme Council of Health (2013). *Building the Foundation National Primary Health Care Strategy*. Retrieved from http://www.sch.gov.qa/health-strategies/national-health-strategy

General Environmental
Environmental exerting external pressure in a predictable manner and an explicit and open plan inclined towards utopia

Basic Conditions
- Surplus capacity of legitimate participants
- Discretionary areas of autonomy
- Relational cognitive capacity of participants
- Shared information

Strategies
- Diffusion
- Learning
- Adhesions / Buy in

Leadership and Skills
- Visibility 'of the commitment of the directions
- Identification of resources
- Constant value by promoters
- Initiators and very legitimate shareholders
- Quality management competency

Design / Understanding
- Acquisition of new models
- Reflexive Comprehensions

CHARACTERISTICS OF CHANGE

Nature of Change
- Method: intentional / unintentional
- Target: conceptual / concrete
- Dispersion: localized / generalized
- Trajectory: complete / blocked / regressive
- Phase: initiation/ growth/ maturation / completion or decline
- Speed: fast / slow
- Rhythm: uniform / variable / on the spot
- Duration: short / long

Design
- Deductive - top / down
- Inductive - bottom / up

Action Strategies
- Internal: cooperation/ perturbation
- External: manipulative / authoritarian
- Means of accompaniment: Incentive / influence / authority / commitment

Stakes
- Strategic Transformation: acquisition of quality management and the implementation of a risk management system
- Organizational transformation of the organization
- Symbolic, physical, and organizational structure
- The processes
- Participants
- Trajectory / performance
- Transformation of the relationship between the organization and its environment

FIGURE 1: POMEY DIMENSION OF FRAMEWORK (Adapted from the author with permission).

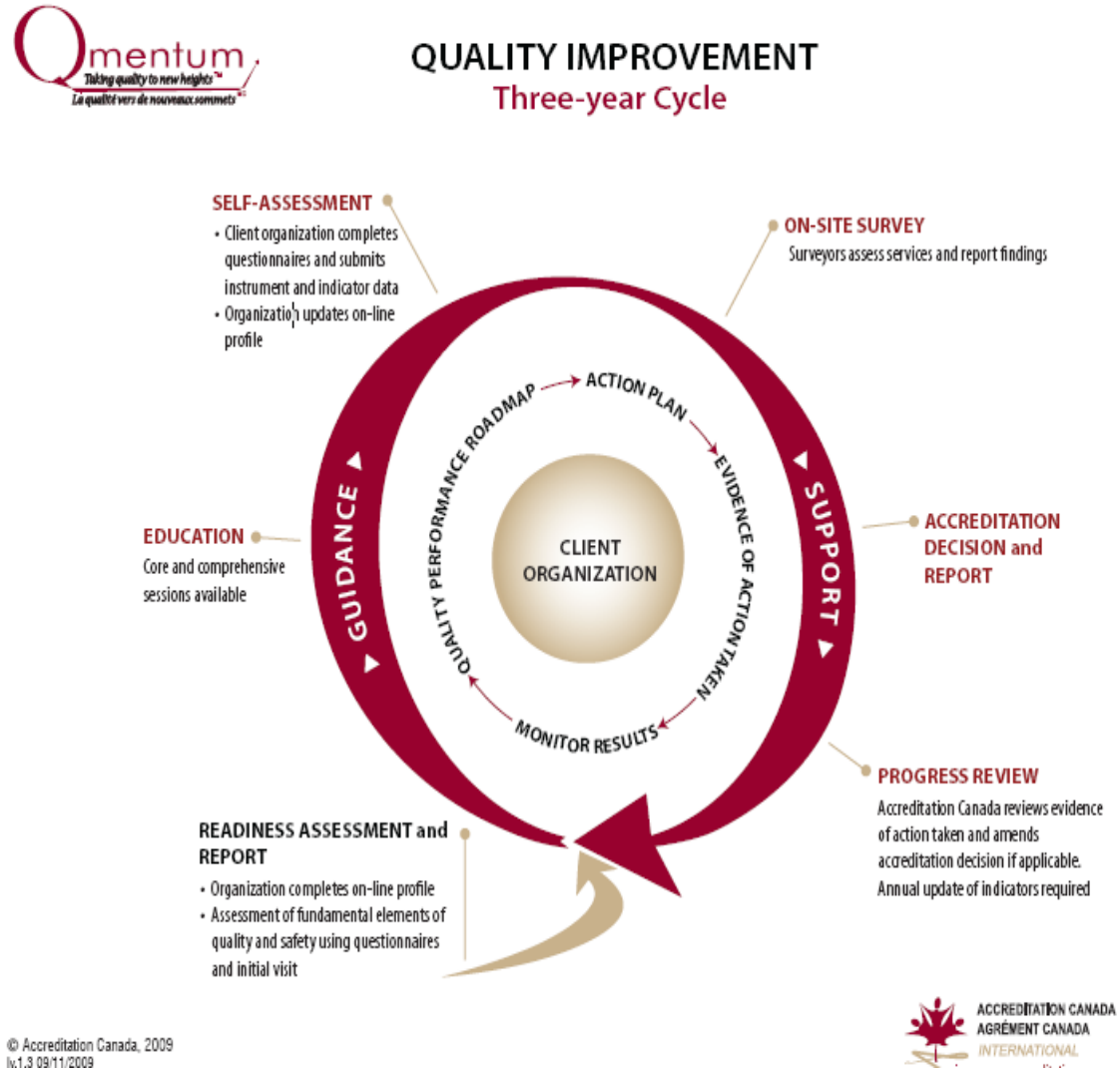


Figure 2: ACI Accreditation Cycle

APPENDIX E: APPROVAL TO USE FRAMEWORK

Requesting Approval to Use Dimension of Change Framework in my research study

From: Marie-Pascale Pomey
To: Alia Ghareeb Banna
Subject: Re: Requesting Approval to Use Dimension of Change Framework in my research study
Date: 01 November 2013 17:24:50
Attachments: FBE3F5EE-45EC-4966-AEFD-9BB4FF2B9C94[19].png

Dear Alia
Thanks you very much indeed for your very kind message. I'm very pleased to hear that you enjoy reading my article and that you are presently doing a PhD.
It's of course with a lot of pleasure that I give you the approval to use "my" framework. I would love to receive your final thesis when it will be completed and if you need an external on your jury, you can give my name,

Looking to read you soon,

Best regards
Marie-Pascale Pomey, MD, Msc, PhD
Professeure agrégée
Directrice de la maitrise Quéops-i
Département d'administration de la santé
Université de Montréal
C.P. 6128, Succ. «Centre-ville»
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Télécopieur: (514) 343-2448

De : Alia Ghareeb Banna <abanna@phcc.gov.qa>
Date : vendredi 1 novembre 2013 03:16
À : Marie-Pascale Pomey <marie-pascale.pomey@umontreal.ca>
Cc : Alia Ghareeb Banna <abanna@phcc.gov.qa>
Objet : Requesting Approval to Use Dimension of Change Framework in my research study

Dear Dr. Pomey,

My name is Alia Ghareeb Banna and I am a Ph.D. student with Walden University in the Health Services. I am requesting your approval to use your Dimension of Change Framework instrument in my current dissertation academic study.

During my dissertation research study, I found your work on investigating the impact of accreditation on organizations to be of great interest as a researcher

and practitioner. In fact your research academic articles inspired me to pursue such topic. Your instrument “Dimension of Change Framework” (that was later modified by Ms. Sophia Weber under your supervision) is of great fit and relevance to my dissertation study. I am kindly asking your approval to use it as my research instrument. To give you a better perspective of my study, I am attaching my Dissertation Prospectus as it will provide you with comprehensive background.

Please note I currently work in the State of Qatar (Gulf area) as an Accreditation Manager for a healthcare organization. I will be glad to share the data and results as well as volunteer to assist you in any other data collection if you require. Please do give me your approval to use the instrument and carry on my academic research.

I look forward to receive your favorable response.

Regards,

Alia G. Banna
Accreditation Manager, PHDc, MHCM
Primary Health Care Corporation, Qatar
phcc.gov.qa
+974- 44593352

APPENDIX F: RESEARCH COMMITTEE APPROVAL

مؤسسة الرعاية الصحية الأولية
PRIMARY HEALTH CARE CORPORATION

Primary Health Care Corporation
Clinical Affairs
Research Section
researchsection@phcc.gov.qa

RS/RC/FL6/15/01

Our Ref: PHCC/RC/14/12/028

Date: 23rd March. 2015

Dear Ms. Alia,

Final Favourable Opinion: Examining the Impact of Accreditation on a Primary Healthcare Organization in Qatar

I write to confirm approval from the PHCC Research Committee at its last meeting on 2nd March 2015 for you to carry out the above research study in PHCC Health Centers. This Final Opinion follows further review by the Research Committee following your response to the Committee's request for further information and clarification. Approval is valid for the period: 23rd March 2015 until 23rd March 2016 subject to the following conditions: that

- You adhere to the principles of good research practice and ensure confidentiality and data protection throughout the study
- You sign a confidentiality agreement regarding the use of PHCC corporate data, ensuring that such data will not be shared with third parties, and will only be used for the intended purposes of research.
- Data collected will not be used beyond the stated goals for which this approval is given, but will be made available for PHCC use.
- The privacy of participants in the research will be respected at all times and you will ensure that data collected will be anonymised.
- All data collected will be securely stored and will not be made available to others outside the research team and or published without prior authorization by the PHCC.
- You agree to provide a progress report within 6 months of the project and at the conclusion of your work in line with laid down research governance procedures.

This final approval requires no further review. However please note that this approval is applicable only in so far as you adhere to the above stated conditions and the Committee reserves the right to revise its approval should this become necessary.

On behalf of the Research Section, I wish you success in the conduct of this study and look forward to receiving your final report following its completion.

Yours Sincerely,

مؤسسة الرعاية الصحية الأولية
PRIMARY HEALTH CARE CORPORATION
Executive Director
Department of Clinical Affairs

Dr Juliet Ibrahim
Chair, PHCC Research Committee
Executive Director, Department of Clinical Affairs.

Tel. : (+974) 44478741 / 44478911
Fax : (+974) 44478728
P.O. Box 26555 Doha - Qatar

هاتف : ٤٤٤٧٨٩١١ / ٤٤٤٧٨٧٤١ (+٩٧٤)
فاكس : ٤٤٤٧٨٧٢٨ (+٩٧٤)
ص.ب : ٢٦٥٥٥ الدوحة - قطر

APPENDIX G: PARTICIPANT INFORMATION SHEET

Primary Health Care Corporation
Clinical Affairs
Research Section
researchsection@phcc.gov.qa

Title of Project: Examining the Impact of Accreditation on a Primary Healthcare Organization in Qatar

Dear PHCC staff,

This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

Voluntary Nature of the Study:
This is purely voluntary and you are not obliged to take part. Be assured that your privacy will be protected. The data collected will be anonymous, that is, it contains absolutely zero identifiers and makes it impossible to determine who participated and who did not. Compensation for your participation is not provided as part of this academic study.

Your responses are anonymous, secure, and without risk to you. No personal identifying information is required or gathered during your participation and the privacy of your responses is insured through password protection and encryption processes that are provided by esurv.org and Microsoft server encryption.

You can also choose to discontinue from taking part at any time if you do not wish to complete the questionnaire.

Risks and Benefits of Being in the Study:
Being in this study does not pose any risk to your safety or wellbeing, future compensation or potential employment opportunities. The benefits derived by participation in this study will assist in understanding the impact of accreditation at PHCC.

If you need further information or clarification, please contact me Alia Ghareeb Banna at alia.ghareeb@waldenu.edu or telephone (+974 5589-5246).

If you have questions about your rights as participants, please contact the Institutional Review Board (IRB) team at Walden University at irb@waldenu.edu or 001-612-312-1210.

In order to protect your privacy, signatures are not being collected, your completion of the survey would indicate your consent, if you choose to participate. You can choose to print or keep a copy of the consent.

Thank you for your help.
Thank you for your assistance in this important endeavor.

APPENDIX H: CULTURE DEFINITIONS

Group: The extent to which the respondent perceives the culture to be based on norms and values associated with affiliation, teamwork, and participation.

Developmental: The extent to which the respondent perceives the culture to be based on risk-taking innovation and change.

Hierarchical: The extent to which the respondent perceives the culture to reflect the values and norms associated with bureaucracy.

Rational: The extent to which the respondent perceives the culture to emphasize efficiency and achievement.

Relational Diagram of Organizational Culture Dimensions

<table>
<tr><td rowspan="4">Internal Focus</td><td colspan="2">Flexibility</td><td rowspan="4">External Focus</td></tr>
<tr><td>Group</td><td>Developmental</td></tr>
<tr><td>Hierarchical</td><td>Rational</td></tr>
<tr><td colspan="2">Stability</td></tr>
</table>

Adapted from Quinn, R.E., and J.R. Kimberly. 1984. "Paradox, Planning, and Perseverance: Guidelines for Managerial Practice." in Managing Organization Transitions, edited by J.R. Kimberly and R.E. Quinn. 295-313. Homewood, IL: Dow Jones-Irwin.

APPENDIX I: SEVEN SCALES DEFINITION

Management Perception of Quality Improvement Questionnaire (Section A)

1. Leadership: extent to which senior executives' personal leadership and involvement creates and sustains a customer focus and clear, visible quality values and the extent to which these quality values are integrated into the organization ' s management system (including the extent to which the organization addresses its public responsibilities and corporate leadership)

2. Information and Analysis: extent to which the scope, management, and use of data and information maintain a customer focus, drive quality excellence, and improve operational and competitive performance

3. Human resources Utilization: extent to which organization employees are provided adequate education and training for quality improvement efforts

4. Strategic Quality Planning: extent to which employees are involved and empowered involved in the organization’s quality planning efforts

5. Quality Management: extent to which all work units, including research and development units and suppliers, contribute to overall quality and operational performance requirements. Examines the key elements of process management including design, management of day-to-day production and delivery, improvement of quality and operational performance, and quality assessment

6. Quality Results: extent to which organization has shown measurable improvement in quality, organization operational performance, and supplier quality

7. Customer Satisfaction: extent to which organization effectively assesses and meets customer (including patients, employees, physicians) requirements and expectations

APPENDIX J: ACCREDITATION PROJECT AT PHCC

Readiness Assessment

The Readiness Assessment Survey was conducted at PHCC between September 25, 2011 and October 2, 2011. Results of the Survey were communicated through a comprehensive report that clearly identified areas of strengths as well as the areas the organization needed to improve on.

Education

PHCC organized with ACI for the delivery of eighteen workshops on quality, patient safety, accreditation and other healthcare management related subjects, and that has shown to be very helpful in raising awareness and knowledge on accreditation and the new changes that staff are to expect as a result of application of the accreditation project in the organization.

Setting the stage -Formulation of self-assessment teams

The self-assessment teams -referred to at PHCC as the accreditation teams -were formulated based on the 8 sets of accreditation standards; *Sustainable Governance, Effective Organization, Primary Care Services, Medication Management, Diagnostic Imaging, Biomedical Laboratory Services, Laboratory and Blood Services and Infection Prevention and Control for Small Organizations.*

For each of the mentioned set of standards, a team was formulated with a leader and members representing all PHCC centers except for both laboratory sets of standards which are combined into a single laboratory team. Team members were selected from frontline staff with each of the members representing one of the 21 HCs that were included in the accreditation process. The teams of "Sustainable Governance" and "Effective Organization" were management teams that were both managed by one leader and included members from PHCC senior management as well as HC management. The "Sustainable Governance" team also sought input from higher leadership in the Supreme Council of Health (SCH).

Given the large number of HCs which precluded an effective and efficient meeting process, two levels of membership were defined for the accreditation teams: *Core Members* who attended regular team

meetings and represented all 3 PHCC regions, and *Non-Core Members* who participated in the process without being required to attend regular team meetings. Important participation of others including PHCC management and other frontline staff was needed and was sought through calling *ad hoc* members into team meetings as necessary.

Development of policies

Some standards criteria required a policy to be in place, this meant that the team should initiate the policy development process (see Figure 1). The process always started with exploring existing policies from HMC manuals or internal PHCC policies. Existing policies were reviewed to assess the need for modifications; such modifications were done as needed before submitting the policy for the review and approval process to be adopted and entered into the implementation process. If modifications were not needed, the policy was updated as required and submitted for review and approval through the *Policies and Procedures* system before starting the implementation process. The history of developing every policy was documented including the original policy if modification was done and the source of that original policy.

When the needed policy is relevant to an existing section or department within PHCC, the team was encouraged to delegate the task to that section or department with clear timeline and specifying the responsible person within that section or department in communication with its leader. For example, policies on hand hygiene were delegated to the Risk Management section within the Department of Performance & Quality Management.

The process of accreditation was not just about developing policies and procedures. Actually, policy and procedure development was the easier aspect of the process. The more challenging and time consuming aspect was the standardized implementation and maintenance of the standards in all PHCC centers consistently.

Figure 1: Policy Development Process, High level Flowchart

Self- Assessment

Self-Assessment was conducted in all our 21 HCs and at the level of Head Quarters during the months of May and June of 2013. The self-assessment offered feedback on PHCC's performance against accreditation standards and criteria from the staff point of view before the accreditation onsite survey.

During self- assessment all staff were asked to participate in the process by completing anonymous online questionnaires that were linked to accreditation standards. Results of self-assessment resulted in a Quality Performance Roadmap (QPR) which guided preparations for accreditation as it designated areas that PHCC was doing well in and areas that needed setting improvement plans for .

Road Show

The PHCC "Accreditation Roadshow" hit the road visiting all 21 HCs during the month of September 2012. The activities started on September 10th and continued throughout the month until the closing show on September 30th.

The roadshow had multiple purposes including raising awareness on quality and safety as the true goals of accreditation work, updating staff on the work completed thus far and discussing upcoming plans, and bringing it all home to staff by dis-cussing their involvement in the accreditation journey.

In each HC, members of the quality management team started the roadshow with an interactive session on the accreditation process in PHCC. The team then toured the HC to reach staff in their work areas and ensure they have the opportunity to give input, ask questions and be involved even if their busy schedules did not allow for participating in the session. The activities allowed for good exchange of information and excellent staff involvement in all HCs.

Patient Safety Culture Survey

As part of Accreditation requirements, PHCC conducted a survey on Patient Safety Culture in all HCs. This survey was about staff opinion of the culture of patient safety and health care quality in HCs. The survey was used as a diagnostic tool to assess the status of patient safety culture in a HC. The survey was translated into the Arabic language and administered in both English and Arabic languages to all providers and staff in the HCs - from receptionists to nurses and physicians. The 51 questions of the survey addressed 12 dimensions of patient safety or quality of care in the HCs. The survey was conducted between 2nd December 2012 and 13th December 2012, for a period of 2 weeks. A total of 2689 staff from all HCs were given the survey and 1838 survey responses were received back, which is a response rate of 68%.

The results of the survey were provided to Accreditation Canada International (ACI). Based on the results, PHCC addressed priority issues identified through the survey.

Planning for implementation of Accreditation standards – Setting the action plans

In order to ensure smooth implementation, all PHCC staff needed to be involved at the planning stage; each in their area and according to their role. This required strong communication approaches and continuous training on accreditation criteria to all concerned staff.

Boot Camps

To facilitate standardized implementation within all HCs, the Accreditation Management Team, with the support of other members of the Performance & QMD, ran "*Implementation Planning Boot Camps*" for each accreditation team. The boot camps included all team members as well as a leader from each HC for each of the accreditation team.

By the end of all boot camps, all plans had been assessed, integrated, and prioritized in order to have a comprehensive time-lined plan for accreditation implementation across PHCC. This process resulted in some modifications to the original plans to ensure alignment and efficient utilization of resources. Such modifications were communicated with the teams well in advance of any implementation activities.

The *Accreditation Management Team* prepared a *standard implementation plan* template to ensure that necessary elements for implementation were considered and that the implementation process was organized and documented. These templates were completed during the implementation planning boot camps to ensure that all aspects needed for implementation were addressed, including structural changes, training, equipment, manpower …etc.

The *Accreditation Management Team* conducted meetings with all teams in preparation for the boot camps and distributed the necessary materials ahead of time as well as surveyed all participants on their perceptions of the current status of their HCs in relation to accreditation criteria and their views on the implementation phase.

Once planning was finalized, the teams provided with the timeline for implementing their plans, were requested to evaluate the implementation process using a standardized template, and were required to adhere to the specified time plan according to the organization-wide plan.

Boot Camps were an opportunity to bring frontline staff together to discuss accreditation standards and take an active role in setting corresponding implementation plans. The boot camps were intensive planning workshops that were conducted during the month of October 2012. Four rounds of boot camps were organized by the QMD with the Diagnostic Imaging, Primary Care Services, Infection Prevention and Control and Medication Management accreditation teams. Staff from different disciplines from all HCs

participated in the boot camps; all accreditation team members and service in charges were invited to attend and take part in setting plans needed for implementation. The boot camps were definitely a success! This is reflected in the fifty-one plans that were generated during the boot camps as well as in the feedback received from participants. The following graph demonstrates how participants rated the boot camp experience.

Focus Groups

Following setting the implementation plans, the QMD team integrated all the plans together and identified necessary resources and requirements crucial for implementation. The different action items in the plans were also be linked together to come up with a "*Master Plan*" that would guide the work as the organization proceeded with implementation.

Implementation

Implementing standards consistently in all PHCC facilities was not an easy task, however; it was *the* important part of all accreditation work. It was also essential that feedback was obtained from staff on implemented criteria and sustained compliance was monitored with all criteria to ensure that the desired change was effective.

The first week of November 2013 marked the beginning of implementation of accreditation plans in the HCs. The implementation project was based on a collaborative and empowering approach which required the buy- in and involvement of all staff. Accreditation plans were also based on the input of front-line staff from the *Boot Camp* workshops and the *Focus Group* meetings.

Here is how it worked: The twenty-one HCs were divided into three clusters. The clustering was done according to the characteristics of the HCs, in terms of size, services offered and the volume of the population served. Each one of the HCs had a similar or a "*twin"* HC in the two other clusters.

The 3 clusters

Cluster 1	Cluster 2	Cluster 3
Abu Bakr Siddiq	Rayyan	Madinat Khalifah
Messaimer	Omar Bin Khattab	Airport
Muntazah	West Bay	Wakra
Shammal	Daayen	Khor
Gharraffa	Um Ghuwalina	Umm Salal
Abu Nakhla	Karaana	Kaaban
Shahaniya	Jumiliya	Ghuwairia

Implementation started beginning of November in *Cluster One* and lasted for a period of two months, after which it moved to *Cluster Two* in January and then to *Cluster Three* in March.

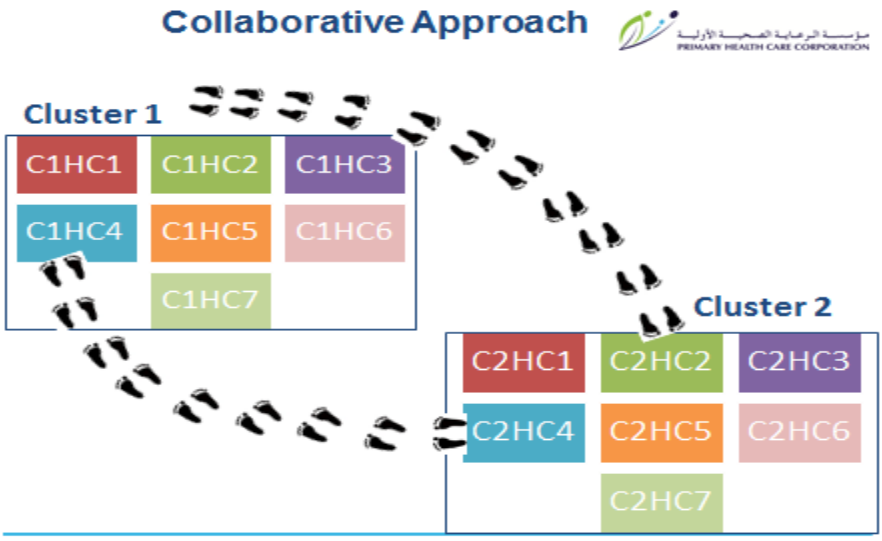
The *General Coaches,* who were coordinators from the QMD (QMD), were attending to implementation activities as coaches to provide the necessary support and guidance to staff.

Activities were planned for each day to cover all accreditation plans in all sections in the HCs. The *Subject Matter Coaches* (SMCs) who were the subject- matter experts from the Operations and the QMD departments also accompanied the *GCs* to provide subject-matter advice and provide training on policies. The *SMCs* also arranged for training sessions at the Head Quarters to train on relevant policies that required comprehensive and extensive training.

An *Accreditation Focal Person* was assigned in each HC to help coordinate implementation activities. The *GCs* and the *SMCs* were working very closely with the *Accreditation Focal Person* assigned in each HC as well as with the section leads and the HC managers to make sure that work was done accurately and according to the plan.

The *GCs* were carefully monitoring the daily activities in the HCs and were documenting successes and achievements as well as where further improvement was needed. Managers from QMD and Operations departments also went on regular weekly rounds to the HCs to monitor the work and provide further support and encouragement to staff.

During the first phase of project (Cluster One), In-Charges from C*luster Two* visited their "twin" HC in C*luster One* so that they get familiar with the implementation process and would start working on implementation in their HCs.



In order to provide support to all activities in the HCs and to make sure all challenges and issues were addressed, the QMD also activated an A*ccreditation Control Center* to direct all issues and concerns to relevant departments for escalation and immediate action.

Mock Surveys 1 and 2

PHCC has undergone through two Mock Surveys, one was conducted in September and the other one in January 2014. Mock 1was an initial assessment and was conducted before the start of implementation. Mock 2 was a great chance to assess progress towards meeting requirements of ACI standards after the implementation of accreditation plans in cluster 1.The surveyors assessed compliance with the standards in the HCs and evaluated readiness for the final survey by conducting several tracers. The surveyors focused on important aspects like health promotion and prevention, access to care, infection

prevention and control, staff interactions, continuity of care, information management, resource management, human capital and medication management.

Following the Mock visits, there was a short debrief through which ACI surveyors presented their findings and shared that there have been considerable improvements in performance and compliance with ACI ROPs and standards in comparison to September Mock survey.

Final Survey

The first day of the final survey visit included meetings that were held at the corporate offices covering the management level aspect of the survey, and the successive survey visits were held at the HCs.

The last day of the final survey, May 20, 2014 was scheduled for the Debriefing Sessions, which included the Leadership and General debrief sessions.

The Leadership debrief session was attended by the SMEC members and the General debrief session was attended by front line and management staff. The debrief sessions included a general overview on the survey findings.

APPENDIX K: DEMOGRAPHICS

	N	Minimum	Maximum	Mean	Std. Deviation
Leadership	253	1.363636364	5	4.0097	.69393
Information and Analysis	253	2	5	3.9402	.65521
Strategic Quality Planning	252	2	5	3.8295	.72195
Human Resources Utilization	252	1.25	5	3.6727	.80942
Quality Management	250	2	5	3.9255	.61461
Quality Results	248	1.75	5	4.0332	.63403
Customer Satisfaction	250	1	5	3.7925	.73738
PP1_TOTAL1	253	1	5	2.1028	1.15869
Professional Participation	253	1	5	2.7144	.98725
Accreditation Impact	252	2	5	4.1735	.56788
Culture A	194	0	100	28.6147	14.01484
Culture B	194	0	50	21.8235	8.46362
Culture C	194	0	78.75	26.5863	11.92566
Culture D	194	0	75	22.9755	10.05618
Acc_Preparation Phase	252	1.5	5	4.2083	.68946
Acc_Recommendations	252	2	5	4.1052	.64787
Acc_Internal Changes	250	2	5	4.2233	.66231
Acc_Externally- Oriented Changes	249	1	5	4.0924	.70342
Acc_Valuable Tool	251	2	5	4.3207	.58799

	Gender	N	Mean	Std. Deviation	Std. Error Mean	P-Value*
Leadership	Male	109	4.0607	.74208	.07108	
	Female	144	3.9711	.65513	.05459	0.31
Information and Analysis	Male	109	3.9225	.72514	.06946	
	Female	144	3.9537	.59915	.04993	0.716
Strategic Quality Planning	Male	108	3.8169	.76228	.07335	
	Female	144	3.8390	.69271	.05773	0.811
Human Resources Utilization	Male	108	3.6328	.85859	.08262	
	Female	144	3.7027	.77218	.06435	0.499
Quality Management	Male	106	3.8949	.66696	.06478	
	Female	144	3.9481	.57439	.04787	0.501

Quality Results	Male	106	3.9995	.67642	.06570	
	Female	142	4.0583	.60166	.05049	0.471
Customer Satisfaction	Male	106	3.7547	.83049	.08066	
	Female	144	3.8204	.66219	.05518	0.502
PP1_TOTAL1	Male	109	2.1950	1.17229	.11228	
	Female	144	2.0330	1.14745	.09562	0.272
PP_TOTAL_MEAN	Male	109	2.7506	.96991	.09290	
	Female	144	2.6871	1.00269	.08356	0.613
Accreditation Impact	Male	109	4.1237	.63424	.06075	
	Female	143	4.2114	.51063	.04270	0.225
Culture A	Male	87	29.3822	15.45943	1.65742	
	Female	107	27.9907	12.76118	1.23367	0.493
Culture B	Male	87	22.8822	8.46486	.90753	
	Female	107	20.9626	8.40378	.81242	0.116
Culture C	Male	87	26.5029	11.98646	1.28508	
	Female	107	26.6542	11.93203	1.15351	0.93
Culture D	Male	87	21.2328	9.35786	1.00327	
	Female	107	24.3925	10.41923	1.00726	0.29
Acc_Preparation Phase	Male	109	4.1422	.76706	.07347	
	Female	143	4.2587	.62194	.05201	0.184
Acc_Recmmendations	Male	109	4.0245	.71103	.06810	
	Female	143	4.1667	.59042	.04937	0.084
Acc_Internal Changes	Male	107	4.1963	.70183	.06785	
	Female	143	4.2436	.63288	.05292	0.577
Acc_Externally-Oriented Changes	Male	107	4.0794	.70053	.06772	
	Female	142	4.1021	.70790	.05941	0.802
Acc_Valuable Tool	Male	108	4.2917	.64535	.06210	
	Female	143	4.3427	.54197	.04532	0.497

	Age Group	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	P- Value*
Leadership	Below 30 years	45	3.8468	.78102	.11643	2	5	
	Between 30 and 45 years	154	4.0576	.71121	.05731	1.363636364	5	
	Between 46 and 55 years	44	4.0599	.52241	.07876	2.545454545	5	
	Over 55 years	10	3.7828	.59717	.18884	2.272727273	4.333333333	
	Total	253	4.0097	.69393	.04363	1.363636364	5	0.211
Information and Analysis	Below 30 years	45	3.8450	.75095	.11194	2	5	
	Between 30 and 45 years	154	4.0169	.65349	.05266	2	5	
	Between 46 and 55 years	44	3.8752	.50429	.07603	2.857142857	5	
	Over 55 years	10	3.4738	.61665	.19500	2.285714286	4.166666667	
	Total	253	3.9402	.65521	.04119	2	5	0.35
Strategic Quality Planning	Below 30 years	45	3.6599	.80995	.12074	2	5	
	Between 30 and 45 years	153	3.9295	.68928	.05572	2	5	
	Between 46 and 55 years	44	3.7682	.65869	.09930	2	5	
	Over 55 years	10	3.3321	.79040	.24995	2	4.428571429	
	Total	252	3.8295	.72195	.04548	2	5	0.14
Human Resources Utilization	Below 30 years	45	3.4747	.98770	.14724	1.25	5	
	Between 30 and 45 years	153	3.7982	.72869	.05891	1.875	5	
	Between 46 and 55 years	44	3.5681	.77916	.11746	1.625	5	
	Over 55 years	10	3.1042	.87052	.27528	2	4.25	
	Total	252	3.6727	.80942	.05099	1.25	5	0.007
Quality Management	Below 30 years	44	3.7916	.75088	.11320	2	5	
	Between 30 and 45 years	153	3.9825	.59592	.04818	2	5	
	Between 46 and 55 years	43	3.9741	.43873	.06691	2.666666667	5	
	Over 55 years	10	3.4347	.66299	.20966	2.555555556	4.333333333	
	Total	250	3.9255	.61461	.03887	2	5	0.17
Quality Results	Below 30 years	44	3.8822	.79010	.11911	1.75	5	
	Between 30 and 45 years	150	4.0721	.62570	.05109	2	5	
	Between 46 and 55 years	44	4.1273	.47071	.07096	3	5	
	Over 55 years	10	3.7000	.45461	.14376	3	4.2	
	Total	248	4.0332	.63403	.04026	1.75	5	0.78
Customer Satisfaction	Below 30 years	44	3.7251	.90048	.13575	1	5	
	Between 30 and 45 years	153	3.8465	.71794	.05804	1	5	
	Between 46 and 55 years	44	3.7791	.59597	.08985	2.5	5	
	Over 55 years	9	3.2716	.68967	.22989	2.333333333	4.222222222	
	Total	250	3.7925	.73738	.04664	1	5	0.127
PP1_TOTAL1	Below 30 years	45	1.6889	.98592	.14697	1	5	0.015

	Between 30 and 45 years	154	2.1185	1.15548	.09311	1	5	
	Between 46 and 55 years	44	2.3295	1.14091	.17200	1	5	
	Over 55 years	10	2.7250	1.54313	.48798	1	5	
	Total	253	2.1028	1.15869	.07285	1	5	
Professional Participation in Corporation Management	Below 30 years	45	2.2611	.92244	.13751	1	5	
	Between 30 and 45 years	154	2.7764	.99421	.08012	1	5	
	Between 46 and 55 years	44	2.9517	.91785	.13837	1	4.75	
	Over 55 years	10	2.7563	.96531	.30526	1	4	
	Total	253	2.7144	.98725	.06207	1	5	0.005
Accreditation Impact	Below 30 years	45	3.9234	.76131	.11349	2	5	
	Between 30 and 45 years	154	4.2162	.52673	.04244	2.461538462	5	
	Between 46 and 55 years	43	4.2872	.43711	.06666	3.538461538	5	
	Over 55 years	10	4.1510	.38215	.12085	3.384615385	4.615384615	
	Total	252	4.1735	.56788	.03577	2	5	0.009
Culture A	Below 30 years	35	27.2571	17.18375	2.90458	6.25	100	
	Between 30 and 45 years	117	28.2479	13.21949	1.22214	0	75	
	Between 46 and 55 years	39	30.1859	13.22126	2.11710	10	70	
	Over 55 years	3	38.3333	15.72882	9.08104	23.75	55	
	Total	194	28.6147	14.01484	1.00621	0	100	0.508
Culture B	Below 30 years	35	18.8714	8.73431	1.47637	0	32.5	
	Between 30 and 45 years	117	22.4829	8.85082	.81826	0	50	
	Between 46 and 55 years	39	22.7949	6.49845	1.04058	7.5	45	
	Over 55 years	3	17.9167	7.10780	4.10369	10	23.75	
	Total	194	21.8235	8.46362	.60765	0	50	0.105
Culture C	Below 30 years	35	28.3714	13.15132	2.22298	0	68.75	
	Between 30 and 45 years	117	25.9081	11.25893	1.04089	0	78.75	
	Between 46 and 55 years	39	26.8526	12.71871	2.03662	0	58.75	
	Over 55 years	3	28.7500	16.34587	9.43729	17.5	47.5	
	Total	194	26.5863	11.92566	.85621	0	78.75	0.737
Culture D	Below 30 years	35	25.5000	10.04219	1.69744	0	50	
	Between 30 and 45 years	117	23.3611	10.29853	.95210	0	75	
	Between 46 and 55 years	39	20.1667	8.82940	1.41384	0	52.5	
	Over 55 years	3	15.000	6.49519	3.7500	7.5	18.75	0.061

			0		0			
	Total	194	22.9755	10.05618	.72199	0	75	
Acc_Preparation Phase	Below 30 years	45	3.8444	.89075	.13279	1.5	5	
	Between 30 and 45 years	154	4.2727	.63681	.05132	2.5	5	
	Between 46 and 55 years	43	4.3372	.57447	.08761	3	5	
	Over 55 years	10	4.3000	.34960	.11055	4	5	
	Total	252	4.2083	.68946	.04343	1.5	5	0.001
Acc_Recommendations	Below 30 years	45	3.8926	.73954	.11024	2	5	
	Between 30 and 45 years	154	4.1429	.63641	.05128	2	5	
	Between 46 and 55 years	43	4.2171	.53888	.08218	3	5	
	Over 55 years	10	4.0000	.68493	.21660	2.666666667	5	
	Total	252	4.1052	.64787	.04081	2	5	0.074
Acc_Internal Changes	Below 30 years	44	3.9621	.80121	.12079	2	5	
	Between 30 and 45 years	153	4.2603	.64318	.05200	2	5	
	Between 46 and 55 years	43	4.3566	.55107	.08404	3	5	
	Over 55 years	10	4.2333	.47271	.14948	3.666666667	5	
	Total	250	4.2233	.66231	.04189	2	5	0.027
Acc_Externally-Oriented Changes	Below 30 years	44	3.9280	.95803	.14443	1	5	
	Between 30 and 45 years	152	4.1349	.64442	.05227	1.666666667	5	
	Between 46 and 55 years	43	4.1473	.58329	.08895	2.666666667	5	
	Over 55 years	10	3.9333	.69921	.22111	3	5	
	Total	249	4.0924	.70342	.04458	1	5	0.293
Acc_Valuable Tool	Below 30 years	44	4.1364	.76526	.11537	2	5	
	Between 30 and 45 years	154	4.3377	.55390	.04463	3	5	
	Between 46 and 55 years	43	4.4302	.49499	.07549	3.5	5	
	Over 55 years	10	4.4000	.45947	.14530	4	5	
	Total	251	4.3207	.58799	.03711	2	5	
								0.105
	Work Duration	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	P-value
Leadership	[0-29.5[months	63	3.9752	.83564	.10528	1.909090909	5	
	[29.5-54[months	64	3.8196	.76211	.09526	1.363636364	5	
	[54-128.5[months	63	4.1378	.57895	.07294	2.181818182	5	0.037
	>128.5 months	63	4.1090	.51801	.06526	3	5	

	Total	253	4.0097	.69393	.04363	1.363636364	5	
Information and Analysis	[0-29.5[months	63	3.8978	.72514	.09136	2	5	0.044
	[29.5-54[months	64	3.8034	.69356	.08670	2	5	
	[54-128.5[months	63	4.1249	.54948	.06923	2	5	
	>128.5 months	63	3.9370	.61039	.07690	2.4	5	
	Total	253	3.9402	.65521	.04119	2	5	
Strategic Quality Planning	[0-29.5[months	63	3.7656	.82248	.10362	2	5	0.031
	[29.5-54[months	63	3.6938	.67187	.08465	2	5	
	[54-128.5[months	63	4.0525	.60073	.07568	2	5	
	>128.5 months	63	3.8061	.73981	.09321	2	5	
	Total	252	3.8295	.72195	.04548	2	5	
Human Resources Utilization	[0-29.5[months	63	3.5606	.94252	.11875	1.25	5	0.006
	[29.5-54[months	63	3.5117	.80764	.10175	1.5	5	
	[54-128.5[months	63	3.9694	.59965	.07555	2	5	
	>128.5 months	63	3.6491	.78932	.09944	1.625	5	
	Total	252	3.6727	.80942	.05099	1.25	5	
Quality Management	[0-29.5[months	61	3.8464	.74961	.09598	2	5	0.058
	[29.5-54[months	63	3.8313	.56199	.07080	2.555555556	5	
	[54-128.5[months	63	4.0981	.54737	.06896	2	5	
	>128.5 months	63	3.9238	.55891	.07042	2.555555556	5	
	Total	250	3.9255	.61461	.03887	2	5	
Quality Results	[0-29.5[months	60	3.9042	.78935	.10190	1.75	5	0.068
	[29.5-54[months	62	3.9481	.59296	.07531	2.2	5	
	[54-128.5[months	63	4.1587	.53661	.06761	2	5	
	>128.5 months	63	4.1143	.57329	.07223	2.4	5	
	Total	248	4.0332	.63403	.04026	1.75	5	
Customer Satisfaction	[0-29.5[months	62	3.7283	.86685	.11009	1	5	0.02
	[29.5-54[months	62	3.5989	.74030	.09402	1.555555556	5	
	[54-128.5[months	63	3.9921	.62128	.07827	2	5	
	>128.5 months	63	3.8468	.65882	.08300	2.5	5	
	Total	250	3.7925	.73738	.04664	1	5	
PP1_TOTAL1	[0-29.5[months	63	1.9762	1.12497	.14173	1	5	0.009

	[29.5-54[months	64	1.9609	.94409	.11801	1	5	
	[54-128.5[months	63	1.9444	1.05823	.13332	1	5	
	>128.5 months	63	2.5317	1.38431	.17441	1	5	
	Total	253	2.1028	1.15869	.07285	1	5	
Professional Participation in Corporation Management	[0-29.5[months	63	2.6171	1.02252	.12883	1	5	0.271
	[29.5-54[months	64	2.6035	.87018	.10877	1	4.4375	
	[54-128.5[months	63	2.7282	.99906	.12587	1	4.8125	
	>128.5 months	63	2.9107	1.04249	.13134	1	5	
	Total	253	2.7144	.98725	.06207	1	5	
Accreditation Impact	[0-29.5[months	63	4.0207	.66769	.08412	2	5	0.016
	[29.5-54[months	63	4.1056	.55010	.06931	2.461538462	5	
	[54-128.5[months	63	4.2842	.55502	.06993	2	5	
	>128.5 months	63	4.2833	.44271	.05578	3	5	
	Total	252	4.1735	.56788	.03577	2	5	
Culture A	[0-29.5[months	49	29.4694	16.70732	2.38676	6.25	100	0.525
	[29.5-54[months	51	26.5441	13.39409	1.87555	0	75	
	[54-128.5[months	45	28.0000	11.53182	1.71906	0	75	
	>128.5 months	49	30.4796	13.87939	1.98277	0	70	
	Total	194	28.6147	14.01484	1.00621	0	100	
Culture B	[0-29.5[months	49	20.6735	8.28044	1.18292	0	37.5	0.129
	[29.5-54[months	51	20.2059	10.42230	1.45941	0	45	
	[54-128.5[months	45	23.1500	6.11964	.91226	7.5	35	
	>128.5 months	49	23.4388	7.97090	1.13870	0	50	
	Total	194	21.8235	8.46362	.60765	0	50	
Culture C	[0-29.5[months	49	26.6122	11.20722	1.60103	0	57.5	0.274
	[29.5-54[months	51	28.5098	14.02649	1.96410	0	68.75	
	[54-128.5[months	45	27.2667	12.05190	1.79659	0	78.75	
	>128.5 months	49	23.9337	9.82924	1.40418	0	65	
	Total	194	26.5863	11.92566	.85621	0	78.75	
Culture D	[0-29.5[months	49	23.2449	10.51666	1.50238	0	50	0.426
	[29.5-54[months	51	24.7402	11.08568	1.55231	0	75	

	[54-128.5[months	45	21.5833	8.29327	1.23629	0	57.5	
	>128.5 months	49	22.1480	9.95261	1.42180	0	52.5	
	Total	194	22.9755	10.05618	.72199	0	75	
Acc_Preparation Phase	[0-29.5[months	63	4.0159	.85651	.10791	1.5	5	0.024
	[29.5-54[months	63	4.1746	.67894	.08554	2	5	
	[54-128.5[months	63	4.2619	.62770	.07908	2	5	
	>128.5 months	63	4.3810	.51364	.06471	3	5	
	Total	252	4.2083	.68946	.04343	1.5	5	
Acc_Recommendations	[0-29.5[months	63	3.9286	.71261	.08978	2	5	0.019
	[29.5-54[months	63	4.0370	.67498	.08504	2	5	
	[54-128.5[months	63	4.2275	.58299	.07345	2	5	
	>128.5 months	63	4.2275	.57369	.07228	2.666666667	5	
	Total	252	4.1052	.64787	.04081	2	5	
Acc_Internal Changes	[0-29.5[months	61	4.1011	.73111	.09361	2	5	0.079
	[29.5-54[months	63	4.1270	.65972	.08312	2	5	
	[54-128.5[months	63	4.3175	.69155	.08713	2	5	
	>128.5 months	63	4.3439	.53202	.06703	3	5	
	Total	250	4.2233	.66231	.04189	2	5	
Acc_Externally-Oriented Changes	[0-29.5[months	61	4.0027	.80421	.10297	1	5	0.101
	[29.5-54[months	62	3.9677	.72607	.09221	1.333333333	5	
	[54-128.5[months	63	4.2407	.66719	.08406	2	5	
	>128.5 months	63	4.1534	.58299	.07345	3	5	
	Total	249	4.0924	.70342	.04458	1	5	
Acc_Valuable Tool	[0-29.5[months	62	4.2339	.68782	.08735	2.5	5	0.214
	[29.5-54[months	63	4.2540	.54531	.06870	3	5	
	[54-128.5[months	63	4.4206	.59708	.07522	2	5	
	>128.5 months	63	4.3730	.49974	.06296	3	5	
	Total	251	4.3207	.58799	.03711	2	5	

	Job Contract	N	Mean	Std. Deviation	Std. Error Mean	P-value*
Leadership	full time employee	246	4.0085	.69530	.04433	
	contract	7	4.0506	.69437	.26245	0.874
Information and Analysis	full time employee	246	3.9492	.65060	.04148	
	contract	7	3.6252	.79242	.29951	0.198
Strategic Quality Planning	full time employee	245	3.8446	.71183	.04548	
	contract	7	3.2993	.92774	.35065	0.049
Human Resources Utilization	full time employee	245	3.6817	.80556	.05147	
	contract	7	3.3571	.94766	.35818	0.296
Quality Management	full time employee	243	3.9302	.60876	.03905	
	contract	7	3.7619	.83501	.31560	0.476
Quality Results	full time employee	241	4.0350	.62487	.04025	
	contract	7	3.9714	.96214	.36365	0.794
Customer Satisfaction	full time employee	243	3.8007	.73382	.04707	
	contract	7	3.5079	.86509	.32697	0.301
PP1_TOTAL1	full time employee	246	2.0996	1.15429	.07359	
	contract	7	2.2143	1.40259	.53013	0.797
Professional Participation in Corporation Management	full time employee	246	2.7078	.98456	.06277	
	contract	7	2.9464	1.13561	.42922	0.529
Accreditation Impact	full time employee	245	4.1677	.57252	.03658	
	contract	7	4.3736	.33656	.12721	0.345
Culture A	full time employee	188	28.5173	14.11406	1.02937	
	contract	6	31.6667	10.94494	4.46825	0.589
Culture B	full time employee	188	21.8617	8.57147	.62514	
	contract	6	20.6250	3.93303	1.60565	0.726
Culture C	full time employee	188	26.6503	12.06806	.88015	
	contract	6	24.5833	6.15765	2.51385	0.677
Culture D	full time employee	188	22.9707	10.15323	.74050	
	contract	6	23.1250	6.92595	2.82751	0.971
Acc_Preparation Phase	full time employee	245	4.2082	.69508	.04441	
	contract	7	4.2143	.48795	.18443	0.982
Acc_Recommendations	full time employee	245	4.1068	.64905	.04147	0.812

	contract	7	4.0476	.65060	.24590	
Acc_Internal Changes	full time employee	243	4.2064	.66149	.04243	
	contract	7	4.8095	.37796	.14286	0.017
Acc_Externally-Oriented Changes	full time employee	242	4.0882	.70354	.04523	
	contract	7	4.2381	.73822	.27902	0.579
Acc_Valuable Tool	full time employee	244	4.3135	.58887	.03770	
	contract	7	4.5714	.53452	.20203	0.253

	Work Location	N	Mean	Std. Deviation	Std. Error Mean	P-Value*
Leadership	PHCC Health Quarters	122	3.8479	.76710	.06945	
	PHCC Health Centers	131	4.1604	.58163	.05082	0
Information and Analysis	PHCC Health Quarters	122	3.7202	.67915	.06149	
	PHCC Health Centers	131	4.1451	.56136	.04905	0
Strategic Quality Planning	PHCC Health Quarters	121	3.6163	.73850	.06714	
	PHCC Health Centers	131	4.0264	.64927	.05673	0
Human Resources Utilization	PHCC Health Quarters	121	3.3682	.83489	.07590	
	PHCC Health Centers	131	3.9540	.67493	.05897	0
Quality Management	PHCC Health Quarters	119	3.7419	.63936	.05861	
	PHCC Health Centers	131	4.0924	.54180	.04734	0
Quality Results	PHCC Health Quarters	117	3.8695	.69161	.06394	
	PHCC Health Centers	131	4.1794	.53976	.04716	0
Customer Satisfaction	PHCC Health Quarters	119	3.5232	.78704	.07215	0

	PHCC Health Centers	131	4.0372	.59371	.05187	
PP1_TOTAL1	PHCC Health Quarters	122	2.3566	1.19482	.10817	
	PHCC Health Centers	131	1.8664	1.07565	.09398	0.01
Professional Participation in Corporation Management	PHCC Health Quarters	122	2.7859	.94646	.08569	
	PHCC Health Centers	131	2.6479	1.02291	.08937	0.268
Accreditation Impact	PHCC Health Quarters	121	4.0245	.60263	.05478	
	PHCC Health Centers	131	4.3110	.49770	.04348	0
Culture A	PHCC Health Quarters	102	27.0858	15.11939	1.49704	
	PHCC Health Centers	92	30.3098	12.54324	1.30772	0.11
Culture B	PHCC Health Quarters	102	20.5123	9.36884	.92765	
	PHCC Health Centers	92	23.2772	7.10213	.74045	0.021
Culture C	PHCC Health Quarters	102	28.5637	13.24576	1.31153	
	PHCC Health Centers	92	24.3940	9.88243	1.03031	0.013
Culture D	PHCC Health Quarters	102	23.8382	10.75875	1.06528	
	PHCC Health Centers	92	22.0190	9.17865	.95694	0.209
Acc_Preparation Phase	PHCC Health Quarters	121	4.0950	.77275	.07025	
	PHCC Health Centers	131	4.3130	.58617	.05121	0.012
Acc_Recommendations	PHCC Health Quarters	121	3.9711	.67655	.06150	
	PHCC Health Centers	131	4.2290	.59641	.05211	0.001

Acc_Internal Changes	PHCC Health Quarters	119	4.0546	.68756	.06303	
	PHCC Health Centers	131	4.3766	.60113	.05252	0
Acc_Externally-Oriented Changes	PHCC Health Quarters	119	3.9230	.74592	.06838	
	PHCC Health Centers	130	4.2474	.62576	.05488	0
Acc_Valuable Tool	PHCC Health Quarters	120	4.2167	.63090	.05759	
	PHCC Health Centers	131	4.4160	.53043	.04634	0.007

	Job Position	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	P-Value*
Leadership	Director, Manager, Project Manager, Head	37	3.7818	.91644	.15066	1.454545455	5	0.19
	Coordinator	30	3.8127	.75263	.13741	2	5	
	Other Administrator	54	4.1889	.53216	.07242	2.909090909	5	
	Physician, Dental	40	3.9359	.68789	.10877	1.909090909	5	
	Nursing	59	4.0239	.58444	.07609	1.363636364	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.2149	.68402	.11907	2	5	
	Total	253	4.0097	.69393	.04363	1.363636364	5	
Information and Analysis	Director, Manager, Project Manager, Head	37	3.7404	.71633	.11776	2	5	0.001
	Coordinator	30	3.6897	.66978	.12228	2	5	
	Other Administrator	54	4.0655	.55213	.07514	2.714285714	5	
	Physician, Dental	40	3.7575	.71358	.11283	2	5	
	Nursing	59	4.0394	.53820	.07007	2.571428571	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.2312	.68398	.11907	2	5	
	Total	253	3.9402	.65521	.04119	2	5	

Strategic Quality Planning	Director, Manager, Project Manager, Head	37	3.5786	.82107	.13498	2	5	0.005
	Coordinator	30	3.6429	.76321	.13934	2	5	
	Other Administrator	54	3.9337	.67650	.09206	2	5	
	Physician, Dental	39	3.6523	.81922	.13118	2	5	
	Nursing	59	3.9455	.53624	.06981	2.285714286	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.1118	.67581	.11764	2	5	
	Total	252	3.8295	.72195	.04548	2	5	
Human Resources Utilization	Director, Manager, Project Manager, Head	37	3.3278	.81732	.13437	2	5	0.002
	Coordinator	30	3.4842	.93078	.16994	1.25	5	
	Other Administrator	54	3.6811	.83052	.11302	1.5	5	
	Physician, Dental	39	3.5329	.88623	.14191	1.625	5	
	Nursing	59	3.9166	.54969	.07156	2.25	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	3.9464	.77316	.13459	1.875	5	
	Total	252	3.6727	.80942	.05099	1.25	5	
Quality Management	Director, Manager, Project Manager, Head	37	3.7014	.74189	.12197	2	5	0.035
	Coordinator	30	3.8091	.64629	.11800	2.2	5	
	Other Administrator	53	4.0249	.51603	.07088	3	5	
	Physician, Dental	38	3.8391	.67684	.10980	2.444444444	5	
	Nursing	59	3.9853	.51020	.06642	2.111111111	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.1157	.60620	.10553	2	5	
	Total	250	3.9255	.61461	.03887	2	5	
Quality Results	Director, Manager, Project Manager, Head	36	3.9667	.74757	.12459	2	5	0.059
	Coordinator	30	3.8339	.70530	.12877	1.75	5	
	Other Administrator	51	4.121	.56278	.07880	2.5	5	

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	Physician, Dental	39	3.9487	.67857	.10866	2	5	
	Nursing	59	4.0102	.48767	.06349	3	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.2909	.65972	.11484	2	5	
	Total	248	4.0332	.63403	.04026	1.75	5	
Customer Satisfaction	Director, Manager, Project Manager, Head	37	3.5334	.83961	.13803	1.555555556	5	0.002
	Coordinator	30	3.5409	.82645	.15089	1	5	
	Other Administrator	52	3.8165	.76365	.10590	1	5	
	Physician, Dental	39	3.6681	.77762	.12452	2.111111111	5	
	Nursing	59	3.9770	.50780	.06611	2.5	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.0913	.62636	.10904	2	5	
	Total	250	3.7925	.73738	.04664	1	5	
PP1_TOTAL1	Director, Manager, Project Manager, Head	37	3.0676	1.27971	.21038	1	5	0
	Coordinator	30	2.1667	1.20045	.21917	1	5	
	Other Administrator	54	1.8565	1.02401	.13935	1	5	
	Physician, Dental	40	1.7000	.76418	.12083	1	4.25	
	Nursing	59	2.0805	1.18580	.15438	1	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	1.8939	.99810	.17375	1	4.25	
	Total	253	2.1028	1.15869	.07285	1	5	
Professional Participation in Corporation Management	Director, Manager, Project Manager, Head	37	3.2736	.98053	.16120	1	4.75	0.009
	Coordinator	30	2.7417	.98326	.17952	1	5	
	Other Administrator	54	2.5197	.99903	.13595	1	4.5	
	Physician, Dental	40	2.6000	.85248	.13479	1	4.8125	
	Nursing	59	2.6303	.98311	.12799	1	5	
	Pharmacy,	33	2.670	.98466	.17141	1	4.25	

	Laboratory, Radiology, Other Clinical		5					
	Total	253	2.7144	.98725	.06207	1	5	
Accreditation Impact	Director, Manager, Project Manager, Head	36	4.2383	.57313	.09552	2	5	0.14
	Coordinator	30	3.9918	.51477	.09398	2.307692308	5	
	Other Administrator	54	4.0885	.63583	.08653	2	5	
	Physician, Dental	40	4.1981	.59709	.09441	2.769230769	5	
	Nursing	59	4.1849	.49256	.06413	2.461538462	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.3566	.55029	.09579	3	5	
	Total	252	4.1735	.56788	.03577	2	5	
Culture A	Director, Manager, Project Manager, Head	31	26.6048	11.34530	2.03768	7.5	55	0.506
	Coordinator	25	25.8100	13.42403	2.68481	0	55	
	Other Administrator	41	27.6890	16.45816	2.57033	3.75	100	
	Physician, Dental	33	30.8636	13.70463	2.38567	10	75	
	Nursing	39	31.4744	15.35991	2.45955	0	75	
	Pharmacy, Laboratory, Radiology, Other Clinical	25	28.0000	11.29044	2.25809	0	50	
	Total	194	28.6147	14.01484	1.00621	0	100	
Culture B	Director, Manager, Project Manager, Head	31	20.6371	8.74877	1.57133	6.25	45	0.227
	Coordinator	25	19.9700	10.46928	2.09386	0	37.5	
	Other Administrator	41	21.3049	8.92688	1.39414	0	42.5	
	Physician, Dental	33	20.7955	7.16585	1.24741	0	33.75	
	Nursing	39	23.5256	7.60276	1.21742	7.5	50	
	Pharmacy, Laboratory, Radiology, Other Clinical	25	24.7000	7.57153	1.51431	11.25	50	
	Total	194	21.8235	8.46362	.60765	0	50	
Culture C	Director, Manager,	31	30.85	12.6172	2.2661	12.5	65	0.064

	Project Manager, Head		48	5	2			
	Coordinator	25	25.9600	11.75724	2.35145	10	68.75	
	Other Administrator	41	28.6159	14.63900	2.28623	0	78.75	
	Physician, Dental	33	26.1439	9.84053	1.71302	5	56.25	
	Nursing	39	22.3397	9.92231	1.58884	0	47.5	
	Pharmacy, Laboratory, Radiology, Other Clinical	25	25.8000	10.15428	2.03086	7.5	57.5	
	Total	194	26.5863	11.92566	.85621	0	78.75	
Culture D	Director, Manager, Project Manager, Head	31	21.9032	7.08863	1.27316	0	32.5	0.146
	Coordinator	25	28.2600	13.94791	2.78958	7.5	75	
	Other Administrator	41	22.3902	9.77290	1.52627	0	46.25	
	Physician, Dental	33	22.1970	8.99235	1.56537	0	50	
	Nursing	39	22.6603	11.07384	1.77323	0	57.5	
	Pharmacy, Laboratory, Radiology, Other Clinical	25	21.5000	7.76444	1.55289	0	35	
	Total	194	22.9755	10.05618	.72199	0	75	
Acc_Preparation Phase	Director, Manager, Project Manager, Head	36	4.3333	.71714	.11952	2	5	0.136
	Coordinator	30	4.2667	.63968	.11679	2.5	5	
	Other Administrator	54	4.0000	.82416	.11215	1.5	5	
	Physician, Dental	40	4.2125	.69695	.11020	2.5	5	
	Nursing	59	4.1949	.54943	.07153	3	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.3788	.63775	.11102	3	5	
	Total	252	4.2083	.68946	.04343	1.5	5	
Acc_Recommendations	Director, Manager, Project Manager, Head	36	4.1574	.68770	.11462	2	5	0.666
	Coordinator	30	4.0333	.58950	.10763	3	5	
	Other Administrator	54	3.9907	.73002	.09934	2	5	

	Physician, Dental	40	4.1167	.71032	.11231	2.666666667	5	
	Nursing	59	4.1638	.54447	.07088	3	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.1818	.61853	.10767	3	5	
	Total	252	4.1052	.64787	.04081	2	5	
Acc_Internal Changes	Director, Manager, Project Manager, Head	36	4.3333	.72155	.12026	2	5	0.008
	Coordinator	30	3.8222	.67656	.12352	2	5	
	Other Administrator	52	4.1891	.53324	.07395	2.666666667	5	
	Physician, Dental	40	4.2667	.75561	.11947	2	5	
	Nursing	59	4.2486	.59562	.07754	2	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.4242	.65231	.11355	3	5	
	Total	250	4.2233	.66231	.04189	2	5	
Acc_Externally-Oriented Changes	Director, Manager, Project Manager, Head	36	4.0278	.76997	.12833	2	5	0.062
	Coordinator	30	3.8111	.75650	.13812	1	5	
	Other Administrator	52	4.1122	.70535	.09781	1.333333333	5	
	Physician, Dental	39	4.1026	.71800	.11497	2.666666667	5	
	Nursing	59	4.0932	.60590	.07888	1.666666667	5	
	Pharmacy, Laboratory, Radiology, Other Clinical	33	4.3737	.66016	.11492	2.666666667	5	
	Total	249	4.0924	.70342	.04458	1	5	
Acc_Valuable Tool	Director, Manager, Project Manager, Head	36	4.4167	.69179	.11530	2	5	0.276
	Coordinator	30	4.1500	.52768	.09634	2.5	5	
	Other Administrator	53	4.3019	.58293	.08007	2.5	5	
	Physician, Dental	40	4.3500	.59052	.09337	3	5	
	Nursing	59	4.2627	.51991	.06769	3	5	
	Pharmacy, Laboratory,	33	4.4697	.62424	.10867	3	5	

	Radiology, Other Clinical							
	Total	251	4.3207	.58799	.03711	2	5	

	QMD Member	N	Mean	Std. Deviation	Std. Error Mean	P-Value*
Leadership	Yes	212	4.1131	.58353	.04008	
	No	41	3.4750	.94219	.14715	0
Information and Analysis	Yes	212	4.0246	.58193	.03997	
	No	41	3.5041	.82799	.12931	0
Strategic Quality Planning	Yes	212	3.8994	.67932	.04666	
	No	40	3.4589	.83084	.13137	0.003
Human Resources Utilization	Yes	212	3.7226	.78576	.05397	
	No	40	3.4085	.88940	.14063	0.024
Quality Management	Yes	210	3.9784	.56099	.03871	
	No	40	3.6479	.79443	.12561	0.015
Quality Results	Yes	210	4.0991	.56199	.03878	
	No	38	3.6689	.85940	.13941	0.005
Customer Satisfaction	Yes	210	3.8748	.66761	.04607	
	No	40	3.3609	.92490	.14624	0.002
PP1_TOTAL1	Yes	212	2.1002	1.17550	.08073	
	No	41	2.1159	1.08123	.16886	0.937
Professional Participation in Corporation Management	Yes	212	2.7302	1.00508	.06903	
	No	41	2.6326	.89641	.14000	0.563
Accreditation Impact	Yes	211	4.1987	.55024	.03788	
	No	41	4.0437	.64303	.10042	0.11
Culture A	Yes	160	27.5531	12.65223	1.00025	
	No	34	33.6103	18.60832	3.19130	0.078
Culture B	Yes	160	22.4656	8.05033	.63643	
	No	34	18.8015	9.76112	1.67402	0.047
Culture C	Yes	160	26.7328	11.01386	.87072	
	No	34	25.8971	15.70721	2.69376	0.769
Culure D	Yes	160	23.2484	9.65801	.76353	
	No	34	21.6912	11.83009	2.02884	0.414
Acc_Preparation Phase	Yes	211	4.1872	.67737	.04663	
	No	41	4.3171	.74796	.11681	0.271
Acc_Recommendations	Yes	211	4.0924	.64489	.04440	
	No	41	4.1707	.66717	.10420	0.48
Acc_Internal Changes	Yes	209	4.2775	.61980	.04287	
	No	41	3.9472	.79969	.12489	0.003

Acc_Externally-Oriented Changes	Yes	208	4.1683	.65714	.04556	
	No	41	3.7073	.80690	.12602	0
Acc_Valuable Tool	Yes	210	4.3357	.56865	.03924	
	No	41	4.2439	.68119	.10638	0.361

	Involved in Accreditation	N	Mean	Std. Deviation	Std. Error Mean	P-Value*
Leadership	Yes	67	3.9524	.66688	.08147	
	No	186	4.0303	.70403	.05162	0.432
Information and Analysis	Yes	67	3.8068	.56627	.06918	
	No	186	3.9883	.67942	.04982	0.052
Strategic Quality Planning	Yes	67	3.6357	.68733	.08397	
	No	185	3.8997	.72313	.05317	0.1
Human Resources Utilization	Yes	67	3.3848	.76138	.09302	
	No	185	3.7770	.80291	.05903	0.001
Quality Management	Yes	66	3.7726	.56440	.06947	
	No	184	3.9804	.62400	.04600	0.018
Quality Results	Yes	66	3.8745	.58368	.07185	
	No	182	4.0908	.64322	.04768	0.017
Customer Satisfaction	Yes	65	3.6051	.72671	.09014	
	No	185	3.8584	.73167	.05379	0.017
PP1_TOTAL1	Yes	67	1.9888	1.10134	.13455	
	No	186	2.1438	1.17885	.08644	0.349
Professional Participation in Corporation Management	Yes	67	2.4972	.96949	.11844	
	No	186	2.7927	.98443	.07218	0.035
Accreditation Impact	Yes	66	3.8855	.59728	.07352	
	No	186	4.2756	.52164	.03825	0
Culture A	Yes	53	27.4764	15.85786	2.17824	
	No	141	29.0426	13.29265	1.11944	0.489
Culture B	Yes	53	22.2500	9.30364	1.27795	
	No	141	21.6631	8.15514	.68679	0.668
Culture C	Yes	53	27.1604	12.03192	1.65271	
	No	141	26.3706	11.92142	1.00396	0.682
Culture D	Yes	53	23.1132	9.34650	1.28384	
	No	141	22.9238	10.34183	.87094	0.907
Acc_Preparation Phase	Yes	66	3.7500	.69199	.08518	
	No	186	4.3710	.61250	.04491	0
Acc_Recommendations	Yes	66	3.7045	.62893	.07742	0

	No	186	4.2473	.59407	.04356	
Acc_Internal Changes	Yes	64	4.0339	.65813	.08227	0.008
	No	186	4.2885	.65285	.04787	
Acc_Externally-Oriented Changes	Yes	64	3.9141	.75825	.09478	0.018
	No	185	4.1541	.67465	.04960	
Acc_Valuable Tool	Yes	65	4.1308	.62046	.07696	0.002
	No	186	4.3871	.56295	.04128	