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Introducing continuous quality improvement initiatives: a case study of St Francis community Hospital in Nairobi Kenya

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INTRODUCING CONTINOUS QUALITY IMPROVEMENT INITIATIVES: A CASE STUDY OF ST FRANCIS COMMUNITY HOSPITAL IN NAIROBI KENYA

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DECLARATION

I declare that this MBA research dissertation work has not been previously submitted and approved for the award of degree by this or any other university. To the best of my knowledge and belief, the dissertation does not contain material previously published or written by any other person except where due reference is made in the thesis itself.

Esther Wairimu Mwangi

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DEDICATION

I dedicate my thesis to the most special and inspiring people in my life who have meant and continue to mean so much to me. First and foremost, to my most loving and precious mom Felista Wanjiru Mwangi whose love for me knows no bounds. Mom you love and protect me like the apple of your eyes. Your prayers for me never dry for a single day. My success, peace and happiness fuel your heart with great joy. Mummy you taught me the value of hard work, good morals, Christian virtues, education and faith in God through the Catholic teachings. Mom you baptized me at the danger of death when I was a baby so that my soul would go to heaven! Thank you so much "Mama Jomo", I will never forget your love and care for me.

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Author; Mwangi Wairimu Esther (2018)

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LIST OF ABBREVIATIONS

CEO	Chief Executive Officer
CFO	Chief Finance officer
CIF	Chief Information Officer
CNO	Chief Nursing Officer
CQI	Continuous Quality Improvement
HMIS	Health Management Information System
HMT	Health Management Team
HOD	Head of Department
HR	Human Resource Officer
ICT	Information Communication Technology
ISO	International Standard Operations
KMPDB	Kenya Medical Practitioners and Dentist Board
MEDSUP	Medical Superintendent
QA	Quality Assurance
QAM	Quality Assurance Manager
QI	Quality Improvement
QIT	Quality Improvement Team
QMT	Quality Management Team
SNO	Senior Nursing officer
SOPs	Standard Operating Procedures
STFCH	St Francis Community Hospital
WITs	Work Improvement Teams

ABSTRACT

The purpose of this study was to explore in-depth the experiences within the St Francis Community hospital (STFCH) in its short Quality Improvement (QI) journey; and to identify both the facilitating and hindering factors encountered in the establishment of Continuous QI initiatives for policy analysis through examining policy actors, content, context and policy process involved in the introduction of QI initiatives.

The study was informed by the Theoretical frame work of the Donabedian model while the conceptual framework was based on the Policy analysis triangle which identifies four pillars of policy analysis namely; the policy actors, policy context, policy context and policy process. These four interact in such a synchronised way that jointly influences any establishment of Quality Improvement initiatives in the healthcare sector. The study employed Qualitative approaches by use of the Case study design. A sample size of 32 was scientifically identified through a purposeful sampling. A total of 22 (68.75%) respondents were interviewed as follows. Key informants were 7 for the in-depth interview and 2 FGD. The first FGD targeting HMT had 7 respondents while the second FGD targeting QIT comprised of 8 respondents.

The study found out that the STFCH has tried to introduce minimal QI initiatives in an informal manner without measurable objectives. Most staff does not understand their specific roles in Continuous Quality Improvement (CQI) hence confusing them with their job descriptions. Even if there was very good will to embrace QI Initiatives due to its positive impact in healthcare delivery, there was a general knowledge gap on the understanding of QI models, QI policy and other accreditation requirements. Efforts on QI were only anchored on the motivation of having the hospital get ISO certified by the year 2019 outside which QI initiatives would not be considered for any resource allocation. The study also revealed that the implementation has been haphazard, uncoordinated and lacking in structural systems, QI Policy manual and professionalism which continuously affected delivery of effective, efficient, safe, timely and satisfactory healthcare services. This was evidenced by absence of measurable outcomes, documented evidence of quality improvement practices and an official adoption of a specific QI model to guide the intended initiatives.

The study therefore made five recommendations namely; First there is need for a training of all actors on their different roles and responsibilities as well as form vibrant Work Improvement Teams in every department (WIT) in regards to QI initiatives; Secondly the hospital should adopt a QI model to scientifically guide and support QI initiatives in the facility; thirdly HMT should be fully involved in the development of a QI policy manual and all the other aspects of CQI so as to promote ownership and support of the processes as well as address issues emanating from quality assurance initiatives. Fourthly QI Budgetary allocation should be considered to ensure a serious commitment to the QI activities in the health facility. Finally, a culture of Continuous Quality Improvement should be promoted by establishing a research centre or innovative research initiatives that can continuously decision on QI initiatives.

Keywords: Continuous Quality Improvement, Introducing QI initiatives, Policy actors, Policy Content, Policy Context, Policy Process.

CHAPTER ONE:

INTRODUCTION

1.1 Background

Healthcare facilities are required to implement patient safety and quality improvement processes to guarantee safe and effective care. Quality Improvement (QI) entails the introduction of systems and processes, with rigorous data collection and usage, to improve services to better meet the needs of patients. The QI science has evolved overtime, with increased focus on patients (patient centeredness) and on new approaches for delivering outpatient services. The reputation of a healthcare provider, the scope of practice and earning ability are increasingly becoming dependent on the ability to ensure effective delivery of positive quality outcomes (Baillie & Maxwell, 2017). In addition, quality measures have become a point of focus for regulatory board certification and licensure in recent times.

Historically, quality healthcare has been provided in acute care settings. However, this is rapidly changing with increased realization that quality outcomes are just as important in outpatient settings. According to a report by the Institute of Medicine (IOM), quality outcomes which was once an impetus of enhancing patient outcomes, has become imperative in the realization of patient safety (Aiken et al., 2013). One of the objectives of quality improvement is to deliver positive patient outcomes based on the realization that medical errors may affect the effectiveness of treatment. Quality improvement concepts and tools for the physician practice have been characterized by limited development because they were mainly provided by commercial health insurance organizations and physician hospital organizations. These were facilitated by pay for performance initiatives such as the American-based Blue Cross Blue Shield Medical Home project (Barnard & Hannon, 2010).

Akachi, Tarp, and Kruk (2016) conducted a study to measure the quality of care in reference to Sustainable Development Goal (SDG) number three, which established that high-income countries already invest considerable resources in measuring the level and variation in health care quality and associations with health outcome. However, there is less emphasis on measurement of quality of care in low and middle-income countries despite evidence

suggesting that poor quality is rampant (Akachi, Tarp, and Kruk 2016). Additionally, the sole focus on access and financing of healthcare is inadequate to guarantee the attainment of the SDG three, whose purpose is to ensure healthy lives and promoting the wellbeing for all across age groups. This goal can only be achieved by addressing quality and patient issues alongside access and financing.

In Kenya, the healthcare sector through the economic blue print *Vision 2030* has been involved in the deliberate initiatives aimed at making Kenya a middle-income economy (Awortwi, 2016). Under the social pillar, the government has outlined its commitment to improving the quality of life by providing affordable, equitable, and quality healthcare (Ross, 2014). Despite improved investment by the government and other stakeholders, the healthcare sector is still facing major challenges in delivering quality healthcare services (Awortwi, 2016). Furthermore, there is limited knowledge on the barriers of provision of quality services in healthcare facilities. This makes it relatively difficult to set up quality improvement initiatives and implement sustainable QI activities, which in turn hampers effective delivery of healthcare services. It is vital that as facilities move towards improving quality, their experiences inclusive of achievements and challenges, are all documented to inform future efforts by other healthcare providers.

1.2 Problem statement

Quality improvement (QI) initiatives are gaining traction, but remain uncommon across majority of the hospitals in low and middle-income countries, including Kenya (Akachi, Tarp & Kruk 2016)

According to (Zhang & Sikka, 2016), most hospitals do not have established and well-functioning QI departments and teams, and even where present, QI team roles are poorly outlined with the overall absence of a culture of continuous improvement. Most healthcare providers perceive QI as an activity to be done alongside daily tasks, rather than as integration into daily activities. Healthcare personnel often see QI as the mandate of specific focal persons, and not their own responsibility. This has been partly caused by lack of well thought out initiatives, activities, QI policy manuals and models to help entrench quality improvement in daily activities.

The absence of QI initiatives has led to numerous problems including patient safety-related issues, resource wastage and inefficiencies, poor organization of work, poor and stressful work environment, demotivated staff, and overall, poor healthcare outcomes. Lack of stringent adherence to quality standards has also been linked to medical errors, including near misses, sentinel and adverse events such as death and serious medical injuries (Somatunga, Sridharan, Refai, Malavige & Gamini, 2015).

In an effort to achieve Universal Health Coverage (UHC), countries and development partners have continued to invest in promoting financial and geographical access to healthcare services. However, there has been less focus improving the quality of services, yet this is a major determinant of utilization of health care services. The Triple Aim Triangle (or Iron Triangle) can be used in demonstrating the interrelation across healthcare financing, access, and quality. At Kenyatta National Hospital, Kenya's largest referral hospital, a brain surgery was performed on a wrong patient resulting in the suspension of the operating surgeon, a ward nurse, and the anaesthetist (Daily Nation Friday March, 2nd 2018 page 3). Thereafter, the Cabinet Secretary for Health sent the Chief Executive Officer and her Deputy on compulsory leave pending thorough investigation on the regrettable incident which is purely blamed on non-adherence to Quality Assurance measures by failing to obey the laid down surgical procedures (Daily Nation on 3rd March 2018, page 1).

Quality improvement efforts have been limited in the past at the St Francis Community Hospital (STFCH). However, the hospital is in the process of establishing QI structures and processes to strengthen quality and improve outcomes. This study will examine the experiences around the establishment of continuous quality improvement initiatives at the hospital. Study findings will inform healthcare organizations on the experiences and challenges around setting up QI activities and/or strengthening existing initiatives. These are vital steps towards Universal Healthcare Coverage.

1.3 Objectives of study

1.3.1 Overall objective:

To understand the experiences encountered in the process of introducing quality improvement initiatives and how they contribute to Policy development at the St Francis Community Hospital (STFCH).

1.3.2 Specific objectives

i. To describe the role of different actors involved in the establishment of the quality improvement initiatives at St Francis Community Hospital (role of actors).
ii. To understand the content of the quality improvement initiatives (policy content).
iii. To determine the contextual factors that led to the hospital's decision to introduce the quality improvement initiatives (policy context).
iv. To explore in-depth, the process of introducing quality improvement initiatives (Policy process).

1.4 Research Questions

i. What are the roles of the key actors in the establishment of the Quality Improvement initiatives at STFCH?
ii. What are the specific policy contents of QI initiatives at STFCH?
iii. Which are the known contextual factors that triggered the hospital management to introduce QI Initiatives at the facility?
iv. What are the different experiences encountered in the process of introducing the CQI initiatives at the hospital?

1.5 Scope of study

The study was conducted at the St Francis Community Hospital, a level 5 faith-based facility located in Kasarani Sub-county of Nairobi County. Kasarani sub-county covers 86 square kilometres with a population density of 6,081.5. It consists of five wards namely Kasarani, Clay city, Mwiki, Njiru and Ruai with a population of 525,624, comprising of 164,354 households (According to the Kenya National Bureau of Statistics 2013 census). The sub-

county boarders Roysambu sub-county to the West, Ruaraka to the East, and Embakasi to the South. All these sub-counties are largely populated by low and middle social economic status individuals. St Francis is the only level 5 hospital in Kasarani sub-county.

The study sought views, opinions, and perceptions of senior and middle level management and staff, including doctors, nurses, laboratory technologists, pharmaceutical technologists, and administration staff.

1.6 Significance of study

The study informs healthcare personnel, the senior management, scholars, investors, healthcare industry, potential partners in healthcare service delivery, policy makers, future researchers and even other significant stakeholders on the experiences around the introduction of QI initiatives as well as the facilitators and barriers to establishing QI initiatives within hospitals that are important to consider when planning develop governing Policy on introduction of Quality Improvement. The study will be useful to the quality improvement managers or departments in healthcare on important components to consider while introducing or implementing QA strategies in health facilities.

The study demonstrates the roles of different actors involved in ensuring introduction, implementation and adherence to QI strategies. It provides evidence of appropriate and effective planning approaches in view of setting up or enhancing QI policies. For the healthcare personnel, the findings of this study provide techniques for understanding QI concepts in the pursuit and operationalization of quality health initiatives.

The study plays a critical role in promoting proactive interaction between healthcare providers and patients. It facilitates and promotes a culture of continuous quality improvement initiatives by healthcare facilities as they work towards UHC through delivery of quality, affordable and accessible healthcare service delivery.

The findings provide professional healthcare organizations with information to make evidence-based decisions that are aligned with their beliefs and values. Moreover, this provides an opportunity to understand a holistic perspective in evaluating quality of

healthcare by acknowledging patient perception on the quality of care, and the ability of healthcare providers to ensure accurate planning and the achievement of patient satisfaction.

The study findings may be used by the regulating bodies for policy making, by the learning institutions for education and by students wishing to learn more on the experiences around establishing Introducing QI as well as the significance and interaction of the four pillars to consider while making policy on QI namely the policy actors, contexts, process and policy contents.

Lastly the findings shall also benefit future researchers by providing secondary data on which further studies may be done. In particular, it recommends that further studies are done to compare the impacts of healthcare service delivery in health facilities implementing the different QI strategies and those that do not implement any QI initiative in low and middle income countries.

1.7 Justification of study

St Francis Community Hospital is rolling out a quality improvement plan, which includes ISO certification, developing/ using of standard operating procedures (SOPs), improving on customer satisfaction and, setting up QI units and systems. The study sought to serve two broad purposes: 1) exploring the experiences within the hospital in its short QI journey; and 2) identifying both the facilitating and hindering factors. By describing the policy process, the study will inform hospital policy action in future.

Beyond STFCH, the study informs other hospitals planning to set up QI structures that would ensure improved access to quality healthcare services. The findings of the study are likely to contribute greatly in the effort to attain quality universal healthcare in low and middle-income countries.

1.8 Conclusion

This chapter introduced the topic in the following sub-sections: the background, statement of the problem, purpose of the study, research objectives, and importance of the study, the scope, and justification of the study. Chapter two is the literature review, chapter three will be

research methodology, chapter four will be results and findings and chapter five will be the discussion, conclusion and recommendations.

CHAPTER TWO:

LITERATURE REVIEW

2.0. Introduction

This chapter reviews both theoretical and empirical literature that relate to quality improvement in healthcare. Firstly, the chapter highlights the theoretical foundations underpinning quality improvement (theoretical review), which are then interwoven into the conceptual framework used for the study. Secondly, it will give a narrative synthesis of findings from research on quality improvement (empirical review). The topics of the literature review will be aligned to the study objectives highlighting the following headings: the concept and significance of Quality Improvement in healthcare service delivery, contextual factors influencing adoption of QI Initiatives, the content of the QI initiatives in healthcare, the perceptions of implementers of QI initiatives in healthcare and lastly the potential facilitators and/ or barriers to successful implementation of QI initiatives.

2.1 Theoretical foundations for quality improvement

The bulk of work around quality improvement in healthcare is based on work by Avedis Donabedian, who defined key components of QI and how they apply in healthcare (Ayalew et al., 2017). Avedis work is summed up in what is now popularly referred to as the Donabedian Model of Healthcare Quality. According to this model, quality reflects the goals and values of the current healthcare system and partly on the goals and values of the larger society. This model defines categories that can be considered when measuring the quality of healthcare services. Through this model, it becomes possible to conceptualize quality from a broader perspective, then break it down into components that can be visualized and measured more easily (Ayalew et al., 2017). When quality improvement is understood from the perspective of the Donabedian model, it is important to initiate the process of differentiation through the aspects of structure, processes, and outcomes.

For structure, the model proposes the assessment of resources needed to guarantee certain outcomes and adequate healthcare (Backström, Fundin, & Johansson, 2017). These include equipment, physical facilities, and personnel. Process, on the other hand, focuses on the

actual implementation of activities to achieve desired outcomes. Finally, outcome focuses on the changes experienced in the condition of the patients (Balakas & Smith, 2016). They can also include the level of knowledge and satisfaction among patients. The definition of quality from the Donabedian framework also considers the technical management of patients and the management of interpersonal relationships. These have been considered critical in facilitating access and continuity of quality care (Salvilla et al., 2014).

Quality improvement from this perspective provides a technique though which the healthcare system can develop effective techniques for measuring the extent to which the process of providing effective healthcare increases the probability of realizing positive patient outcomes (Barsalou, 2015). This theoretical framework emphasizes on the role of the physician and the patient in ensuring that the healthcare intervention that is used is effective in the realization of treatment objectives. Through this process, it also becomes possible to make explicit connections between the treatment interventions used and the expected outcomes hence demanding the introduction of evidence-based healthcare practice to be the basis of care (Schnelle, 2007).

When using the Donabedian Model, it is important to focus on the evidence of the effectiveness of various treatment approaches from the perspective of the patient. It also implies that there are no ideal measures of quality that can be used in the management of any condition (Bergman et al., 2015). Instead, it is the responsibility of the healthcare personnel to use their skills and experience in assessing the condition of a patient and manage accordingly. This makes it possible for the healthcare personnel to consider applying technology or any other forms of interventions in ways that are relevant and acceptable to the patient.

The Donabedian Model will provide useful conceptualization of quality measurement and improvement, based on key components of quality management. The actual qualitative assessment will take a policy analysis approach, guided by the Walt-Gilson Policy Analysis Triangle (Buse, Mays & Walt, 2012).

2.2 Empirical Review of Literature

2.2.1 Role of key actors on the introduction of Quality Improvement Initiatives

According to McGivern, Nzinga & English (2017), a major challenge in the implementation of quality improvement is convincing the stakeholders such as employees in a healthcare setting that there is a problem that should be addressed. This is often based on the belief that clinicians in a healthcare setting often perceive quality improvement initiatives to be techniques targeting alternative problems in the healthcare setting. This explains why the process of trying to convince clinicians that there exists a problem that they cannot conceive will require in-depth research to provide verifiable data. An additional challenge lies in the process of convincing the existing personnel that the quality improvement intervention chosen is the best to address the existing problem (Murray, 2016). This is based on the understanding that within the healthcare setting, improvement interventions are often contested because of the existence of a plethora of approaches on the best techniques of managing an existing problem. Healthcare personnel may resist change arguing that the suggested interventions may be lacking sufficient evidence or that they may be in contravention of their routine practices (Puttkammer et al., 2017).

To address this challenge, it is the responsibility of the leadership to institute well-facilitated forums that allow discussions and debates. Failure to get data collection and monitoring systems right makes it relatively difficult for organizations in healthcare to demonstrate the scale of the problem and provide suggestions on the measures that can be used in addressing the problem (O'Donohue & Maragakis, 2016). This can be attributed to insufficient expertise and experience in the collection and interpretation of data, which may be critical in designing operational quality improvement strategies. Excess ambition in the introduction and implementation of quality improvement programs is also critical in the development of effective measures targeting the healthcare setting. However, when this ambition is developed ineffectively it can overwhelm the available resources hence making it relatively difficult to realize the goals and objectives of quality improvement (Ndambiri, Brouwer & Mungatana, 2016). The scale of the resource required for effective implementation of quality improvement is often underestimated because of insufficient managerial skills, financial resources, communication infrastructure, and time (Ziaee, & Bologna, 2015).

Quality Improvement projects and their measurement are difficult to implement and not easy to sustain. Somatunga et al (2015), describes the universal barriers in setting up QI activities as the lack of staff, increased staff workload, lack of communication, poor leadership, certain attitudes of some health workers such as laziness, complacency and absenteeism from important initiatives and activities geared towards quality improvement processes.

2.2.2 Contents for Continuous Improvement Quality Initiatives

Somatunga & Sridharan, et al (2015) emphasizes that maintaining quality and safety in health care sector is of paramount importance in reducing the cost of care, preventing adverse healthcare outcomes, enhancing overall quality of care provided to the patient, as well as maintaining public confidence in the health sector in order to increase the likelihood of desired health outcomes and in consistence with current professional knowledge. Improving quality in healthcare is essential, and deliberate efforts should be a priority for organizations.

In the healthcare setting, the role of quality improvement is to enhance the effectiveness, efficiency, and safety of all operations with the objective of improving the performance of delivering services. The need for these improvements is based on the understanding that the delivery of effective healthcare is increasingly becoming complex with the improvement of life standards (Reed & Canning, 2012). This implies that it will be important for healthcare sector to introduce new and enhanced methodologies that will be critical in reducing the cost of accessing healthcare, while providing access to new technologies (Onguka et al., 2015). The underlying idea of quality improvement is that when the healthcare system remains unchanged with no development overtime, it becomes relatively difficult for that system to generate better results. Through quality improvement, it becomes possible to bring change into the systems in ways that facilitate the achievements at an enhanced performance level (Stamou & Lobdell, 2013). Through this approach, an organization engages in initiatives aimed at replacing the old and redundant system and personnel with relatively new and improved innovations that can be critical in enhancing operations (McDermott et al., 2017).

From a global perspective, quality improvement systems have been used in assessing innovations that can be used to improve the efficiency of existing operations. Part of the quality improvement approaches include introduction of technologies such as the electronic management systems, which are aimed at improving the efficiency of operations, and the

ability of the staff to provide timely and relevant services to patients (Mitra, 2016). This will require the healthcare personnel to be subjected to training as a way of enhancing their capacity and ability to engage in effective execution of their responsibilities using the available technologies.

Quality improvement ensures that the reduction of the underlying healthcare cost is based on the desire to improve the utilization of existing resources in order to ensure effective delivery of services (Rantz et al., 2013). In addition, this makes it easier to enable effective management and allocation of resources according to the existing needs. The main objective of healthcare personnel is to provide the best services to patients, and this enables healthcare systems to institute measures that can be used in motivating healthcare personnel to improve the approaches they use in providing services to their patients (Payne, 2008). Quality improvement provides a technique of measuring services offered while rewarding healthcare personnel who demonstrate the ability to deliver a high degree of quality. From this perspective, quality improvement enhances the possibility that a patient will receive effective treatment. Most developed countries are investing in accreditation and certification processes for health facilities in an effort to demonstrate commitment and compliance to QI initiatives. Some of the essential certification and accreditation initiatives yet minimally embraced in the healthcare sector especially in low income countries include ISO 9001:2015, established use of Standard Operating Procedures (SOPs), and enhanced documentation. However, there is lack of systems to track quality healthcare provision, and limited systematic outcome assessment and measurements (Payne, 2008).

2.2.3 Significant Contextual factors for the introduction of CQI initiatives in Health care

Anyone who seeks to understand the eminence to which quality healthcare is revered by its consumers, purchasers and providers in general shall definitely node to the sentiments of Spath (2013) who believes that most consumers expect quality in healthcare service, as patients demand the best treatment with the high expectations of their treatment outcomes. Everyone wants to have satisfactory interactions with the healthcare providers while consumers want physical facilities where care is provided to be safe, clean, and pleasant. Also, they want their doctors to use the best modern technologies available for both

diagnostic and therapeutic purposes. In ephemeral, quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. According to Spath (2013), quality is an attribute of a product or service that meets or exceeds customers' expectations. Quality is dynamic and constantly improving in nature because what is considered as quality today may not pass the test of quality tomorrow.

Great scholars believe that achieving high quality can be exclusive because customers' needs and expectations are always changing. To keep up with the changes, quality must be constantly managed and continuously improved. Healthcare organizations are being challenged to improve the quality, reliability and value of services through a systematic quality management process. The concept of quality evolution can be traced back in the manufacturing industries in 1920's with three men at Western Electric Company in Cicero, Illinois. The great three men included Walter Shewhart, W.Edwards Deming and Joseph Juran who learned and applied the science of Quality Improvement for the company's production lines (ASQ 2012). With the establishment and adherence to quality improvement models, companies did not only reduce on waste but also the quality of the products was improved tremendously by controlling undesirable process variation. While Shewart is popularly known as the father of statistical quality control, Deming (1994) learned from his methods and made measurements and control of processes variation which became his popularly known philosophy of quality improvement.(Spath, 2013)

Phil, Robert, & Jennifer (2007) in echoing the strong believes of Edward Deming, who led the quality revolution in Japan and the United States, said, "A product or service possesses quality if it helps somebody and enjoys a good and sustainable market." Edward Deming does not define quality directly but instead he references the value of a product or service in terms of its ability to help the consumer as well as its marketability. Phil, Robert and Jennifer (2007) goes ahead to quote how Donabedian, a leading figure in the theory and management of quality of healthcare, previously suggested that "Understanding differing perspectives about quality does not prevent success in achieving quality of care as long as key principles and concepts of quality are identified, understood, and used. According to the Institute of Medicine (IOM) in 1990, quality comprises of the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are

consistent with current professional knowledge. Quality health care meets the expectations of patients and other customers of healthcare services.

Patel (2015) says that “in spite of billions of dollars of money spent worldwide, most of the healthcare is seen to be ineffective, inefficient and inadequate. Therefore there is a crying need to bring about a paradigm shift in the quality of health care delivery and to monitor and sustain it”. Healthcare institutions that are conscious of quality and able to demonstrate in actions a great commitment to Continuous Quality Improvement, most often will increase the premier consumer acceptance and will flourish at the expense of others (Patel, 2015). Most of the QI champions will totally agree that QI is nothing but putting the patient at the heart of health care and wrapping the care around it, rather than the other way around. (Patel, 2015)

According to Buckley, Pittluck & Institute of Medicine (2015), the healthcare industry has been relatively ineffective in its ability to engage in proactive interactions with consumers, when compared to other industries. This is partly because the costs of healthcare have been gradually rising on the global platform. Some of the necessitating factors include scaling back of public interest in many countries which is continuously pressuring the private sector. These factors have become major contributors to an increase in lifestyle diseases among the increasingly ageing population. The growing economic problems, sustained growth in health budgets and the ongoing economic challenges have also been cited as the major impediments to advancement in the medical and health services that different countries intend to realize (Scott et al, 2017).

Studies by Crogan & Dupler (2014), show that in the last 2 decades, global healthcare sector has experienced improvements, resulting in 30% reduction in child mortality rates among children under 5 years of age, and a 25% reduction in deaths from infectious diseases. In the period of 2000 and 2009, the number of malaria cases reduced by approximately 23% in about 105 countries. Furthermore, international collaborations between healthcare agencies and countries have been instrumental in reducing the prevalence of diseases such as HIV/AIDS. Such collaborations have made it easier to build more effective global health systems. Despite these improvements, Dale (2013) acknowledges that cardiovascular diseases are still the leading causes of death globally. Infectious diseases which include malaria, measles, diarrhoea and pneumonia are ranked second because they contribute to about 67% of all preventable deaths among children under the age of five.

Additional factors such as urbanization, immigration, trade, poverty and an increase in encroachment into animal territories have contributed to the rise of new epidemics. This explains why Does, de Mast & Schoonhoven (2015), postulates that more than 20 diseases have developed resistance against drugs while old diseases that had been managed previously have reappeared and are increasingly proving relatively difficult for the healthcare personnel to manage. There are also initiatives such as antiretroviral therapy that have been used to facilitate effective management of the HIV/AIDS epidemic (Johnson, Schellekens, Stewart, Ostenberg, Wit, & Spieker, 2016). This is because different countries across the globe, especially those in sub-Saharan Africa, are experiencing a reduction in the prevalence of the disease. Countries such as China, Australia, and Canada are increasingly involved in initiatives aimed at developing and investing in new infrastructure with the objective of improving the health of their citizens (Fawcett, 2017). For China, these investment initiatives are based on the understanding that Asia is an epicenter of emerging epidemics because of lifestyle changes and the growing population of the aging. According to studies by WHO, European countries are involved in initiatives aimed at developing preventive measures. In countries such as the United States, the healthcare department is increasingly merging into insurance-like providers (Chao, 2007). This country is embracing technology while developing measures of dealing with rising epidemic such as childhood obesity and other lifestyle diseases.

For the United States and other North American countries such as Canada, engaging the population in healthcare sensitization programs has been considered critical in reducing the prevalence of lifestyle disease and enhancing effective management of these illnesses (Rule et al., 2017). This explains why the government, through healthcare agencies has been functional in advocating for the availability of information about the food products that citizens purchase in food stores to improve their ability to make a rational and effective decision when deliberating on the nest food substances for consumption (Finkelman, 2018).

There is evident literature that QI has been identified as the single most important force leading to economic growth of companies in the international market (Feigenbaum, 1991). Therefore healthcare sector especially from the low and lower middle income countries should move in haste to embrace QI initiatives that are affordable and acceptable to their environments and financial abilities.

The development of quality improvement systems is based on the understanding that human operations are often subject to error, and limiting these errors is the responsibility of healthcare management who institute measures that can be used in the delivery of intended patient outcomes. Through quality improvement, healthcare systems ensure that they provide safe, effective, person-centred, efficient, timely, and equitable healthcare services (Dyck, Schwindenhammer & Butcher, 2014). For effective implementation of quality improvement systems, it is the responsibility of the management in the healthcare sector to institute measures based on their understanding of the system, introduce operations targeting the reduction of variation, and ensure that healthcare personnel recognizes the essence and importance of their patients (Johnson, 2013). This implies that it will be important to ensure effective leadership at every level, and to engage in research initiatives with the objective of identifying ways of managing the existing gaps. In addition, it will also be very crucial to assess the availability of relevant resources that can be used in supporting the implementation of quality improvements systems while enhancing staff development.

Culture is a major factor that influences the implementation of quality improvement systems. In a hospital setting, culture defines the values and norms that are critical in effective execution of operations. This implies that the culture of a healthcare system or hospital plays a significant role in the achievement of the intended improvements (Kreidler, 2014). The essence of culture is based on the understanding that high profile failures have been crucial in demonstrating that informal social and psychological aspect in a health care organization plays a critical role in determining the level of performance that an organization demonstrates (Kelly, Vottero, & Christie-McAuliffe, 2014). Furthermore, failure by hospitals to take effective initiatives towards the development of relevant quality improvement programs can also be attributed to their inability to ensure that the strategies they develop are relevant to the dictates stipulated by the organizational culture. This explains why organizations that are focused on the development of effective quality improvement programs often redirect their focus on the need to institute supportive infrastructure and teams with the objective of supporting innovation and development of standards hence realizing better performance towards their goals (Joshi, Zhang & Sikka, 2016).

The type and quality of leadership that is developed and operationalized in an organization within the healthcare setting is also critical in facilitating effective implementation of quality

improvement systems. From the organizational perspective, leadership is important at every level considering that leaders are the decision makers and they provide a sense of direction for an organization (Lighter, 2011). The essence of effective leadership is also based on the understanding that organizational problems cannot be solved without cooperative efforts and the guidance of the leadership. For an organization to ensure that it operates according to the expected standards, the management must assess the techniques through which they can facilitate effective quality management programs (Lighter, 2013). However, this will depend on the availability of teams that can incorporate diverse skills and processes that are based on an understanding of the prevailing problems. This will ensure that quality improvement systems are aligned with the existing needs of the organizations and other stakeholders.

There are leadership behaviour and skills that the management in an organization must possess and demonstrate throughout their deliberations. One of the major aspects of leadership behaviour and skills include relationship and engagement skills (Margonari & Hannan, 2017). Through this approach, it will be possible to ensure that the quality improvement programs are inclusive of the needs of all the stakeholders in an organization. The leadership should also ensure that the resulting quality improvement systems are enabling and facilitative. This includes the assessment and the implementation of the best approaches that are focused on skill and knowledge improvement of all stakeholders (Ludwiczak, 2016).

2.2.4 The Process of Introducing Continuous Quality Improvement in Health Care

Blake & Kohler et al (2016) identified some potential facilitators and barriers to successful adoption of QI initiatives in healthcare through a research study that was carried out among the Member Hospitals of the Partnership for Health and Accountability in Georgia. In their desire to establish the facilitators and barriers to adoption of QI initiatives, they discovered that the following as the chief facilitators.

In order to facilitate adoption of QI initiatives, the ability of the administrative leaders to include the hospital executives, physician leaders, and department heads to communicate and commitment to QI initiative is very essential. Blake & Kohler et al (2016) recommends regular audit and feedback through the specified monitoring and evaluation mechanisms in order to reinforce compliance of QI by all actors. Continuous education for the stakeholders

of the QI initiatives and a scheduled constant reminder as a reinforcement of getting them into a rhythm of a natural practice of the desired culture of QI supporting them forget the bad habits and embrace CQI initiatives.

Another facilitating factor is designating the most appropriate QI champion promotes easy adoption of the QI initiates by the members. The involvement and buying in of the QI initiatives by the physicians and other staff in the hospital encourages the adoption of the QI initiatives by the organization as a whole. Blake et al (2016) emphasizes that external pressures by accrediting and licensing bodies also promote compliance with the required QI strategies by the staff. For example the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The constant reminders of QI initiatives through the most acceptable means of communication among the stakeholders for example posters in the strategic meeting points, through social media and word of mouth among others is another facilitating factor to the adoption of the QI strategies.

Use of data, multipronged approach, having a sustained initiative, keeping communication open and free flowing, as well as establishing the importance of patient safety repeatedly to allow the sinking of the desired practice. Motivating change through education, reinforcement, positive incentives, and full leadership support is one of the best strategies of promoting ownership and adherence to QI measures in a hospital. Another important process for the introduction of the QI initiatives is the establishing innovative ways of supporting and encouraging medical staff to be engaged in QI Initiative.

As described by Blake & Kohler, et al (2016), barriers to successful adoption of QI initiatives includes but not limited to the following; resistance to change by the physician and other staff is the worst and most common form of barrier. Time constraints, use of contract staff, physicians not directly employed by the hospital, and the ongoing need to educate new staff joining the organization are a notable challenge for the introduction of QI initiatives. The complexity of any QI initiative also becomes a barrier to its successful adoption. Another hindrance to successful adoption of the QI initiatives is the inability of staff to prioritize QI with other daily assigned duties.

Apparently majority of the above mentioned potential facilitators and barriers to QI initiatives have also been echoed by Zoutman & Ford (2017) in his journal publication entitled "Quality improvement in hospitals: barriers and facilitators".

2.3 Conceptual framework

The Walt and Gilson Policy Analysis Triangle is a simple model for understanding the various sets of factors that are at work within any policy process. The framework emphasizes on the central role of policy actors, but also highlights the links between actors and three other factors that influence decision making: context, content and process for which their interaction results into the complexity of the policy.

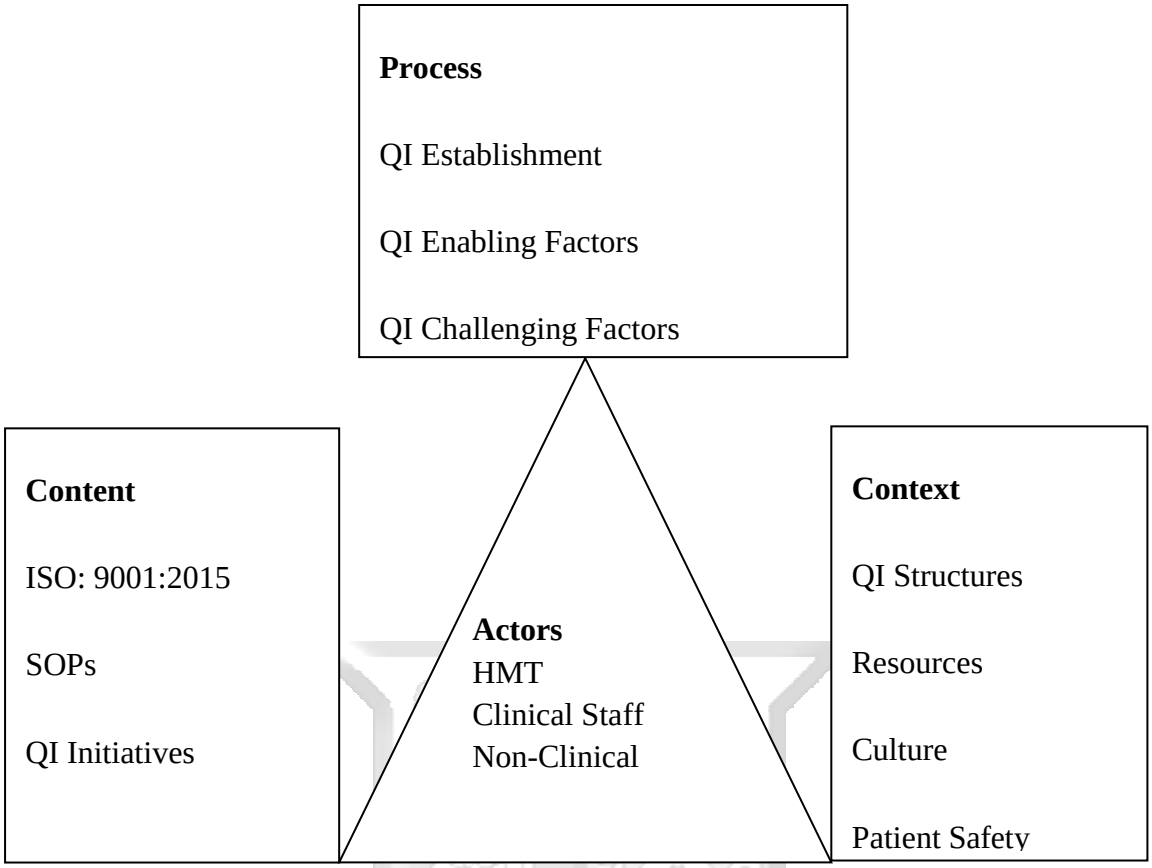
This conceptual framework gives directions to a systematic study of all factors such as people and processes that impacts on the manner in which a policy is developed, formulated and implemented by breaking down the policy into the four components. According to Walt and Gilson, policy analysis can look at a policy prospectively (before a policy is fully introduced, to predict its performance), and retrospectively (after the policy has been introduced and implemented, to learn lessons). They called the two, analysis for policy and analysis of policy respectively. At St Francis Hospital, the QI policy is still in its embryonic stages, meaning that the framework's application is analysis for policy, rather than analysis of policy.

Buse, Mays & Walt, (2012) emphasizes that in the Policy Analysis Triangle, the component of process entails common understanding that policy analysis investigates the political, social and organizational forces that influence how and why policies come about and take effect, or do not. This approach recognizes that not only is policy designed to change a given situation, but also that situation itself changes quite quickly, giving rise to new pressures for further policy changes. By the fact that policy is constantly developing, it is very essential to reflect policy as a process by itself. The process of policy making goes through four basic stages namely, problem identification and issue recognition, policy formulation, policy implementation, and policy evaluation (Buse, Mays & Walt, 2012)

The policy process answers the questions on who makes what decisions, why, and how and when they are made in the process. The process considers the influences on whether and how policies are designed, implemented, seen as solutions to problems, influence practice, and

how they finally generate specific and intended outputs and outcomes. Policy actors denotes individuals, groups or even organizations that identify problems or issues needing attention; prevent problems or issues being considered; shape the design of proposed policies; block the implementation of proposals; develop the strategies through which policies are developed and implemented; and shape the practice of implementation influencing the outcomes achieved through policy changes. The term 'actors' is used instead of 'stakeholders' because 'stakeholder' does not take account of the 'hidden' actors – those who may influence policy but have no obvious 'stake' in the process. It is important to identify the full range of actors in policy processes and the roles they play, including those who are less obvious - e.g. members of the general public - and how they may influence policy by their 'non-action'.

Buse, Mays & Wait (2012), views policy content as an element in the policy analysis that is anchored on legislation, policy documents, regulations and guidelines that has been generally agreed upon. Usually it describes policy objectives giving various details, such as the structures or mechanisms for implementation, resource availability, and indicators for monitoring and evaluating progress. However, the policy content also represents a set of values – either obviously or in a less obvious manner. Policy context is seen as the environment factors in which policy processes ensue. This could be international, national, local, political, economic, and social or even in a regional setup. Context comprises of structures and resources as well as ideas and values of an organization. The said factors can be categorized into situational, structural, cultural and international or exogenous factors (Buse, Mays & Walt, 2012).



Schematic Diagram showing Policy Analysis Triangle. **(Conceptual Framework)**

Diagram Adopted from Walt & Gilson (1994)

In this study, the context refers to the capacity of St. Francis Hospital health system to provide QI programs in relation to the current practice, structures, culture and the physical work environment. In particular it will examine how certain challenges, for instance, sub-optimal resource use, medical errors, unsafe patient exposures, undesirable work environment and others may have contributed (if at all), to the adoption of the quality improvement initiatives. The actors included all persons who work at the St Francis Hospital such as the Health Management Team, clinical staff, non-clinical staff, and the QIT. The managers were involved in decision making and policy formulation, the staff are key in the implementation of the policies, while the clients as hidden actors are the direct beneficiaries of such policies (even though, the hidden actors did not participate in the study).

Finally, the entire process of developing and implementing the QI policy will be examined in-depth to understand the factors that either facilitate or hamper the introduction of QI policy at the Hospital.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter represents the research methodology which was used in conducting the study. The chapter discusses the research design, defines the study area and the target population, sampling frame and technique, data collection tools, data analysis, and dissemination approach for findings. This chapter fine points the research design, the sampling strategy, the different instruments that were used on the target study population, measures that were undertaken to ensure data validity and reliability, and how the final data was presented. The chapter details also bring to light the ethical considerations that were taken to safeguard the privacy and dignity of the study population, and the veracity of the research.

3.2 Research design

Burns and Grove (2003) portray a research design as "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings". The same opinions are accentuated by Parahoo (1997) who defines a research design as "a plan that describes how, when and where data are to be collected and analysed". Polit et al (1997) define a research design as "the researcher's overall for answering the research question or testing the research hypothesis". Research design to entails a description of research approach, study setting, sampling size, sampling technique, tools and methods of data collection and data analysis (Kothari, 2010; Hansen & Kaut, 2005; Crotty, 1998; Gidding, 2006)

Selection of research design was determined by the nature of the research problem, purpose of the study, researcher's knowledge and experiences around the topic under study, researchers interest and motivation on quality improvement initiatives, research ethics and principles, resources, time, subjects and the study population (Denzin & Lincoln, 2005; Gidding, 2006).

The current study aimed to examine the experiences of St Francis Community Hospital in the introduction of quality improvement initiatives as it attempts to promote patient safety,

reduce on waste, improve on revenue and efficiency, exceed its customer's expectations as well as achieve ISO 9001:2015 accreditation/ certification.

The researcher noted the ethical dilemma experienced while collecting data from employees as their employer and also bearing in mind that the researcher has been very strong in advocating for a culture for CQI (Herbst, 2001). These concerns are built on the premise that, by nature, a member of senior management team is deemed as an employer whose values, concerns and directives should be taken with serious concern and that every employee wants to give the best impression to the employer so and also win the employers admiration by responding to the questions in a way that may impress the "boss" instead of being very open and sincere to representing the current practice in its natural occurrence so as to correctly inform the study in the most truthful way possible. Researchers in the management positions find it difficult to recruit and engage their subordinates as participants because of the other work related relationships. As such, no one method can fully provide an in-depth understanding of the employee experiences on the introduction of Quality Improvement initiatives.

This study's use of the qualitative method becomes more fundamental in collecting data in order to address the concerns of the research topic in a very objective manner as well as getting primary and un-influenced insights on the topic under study.

Therefore, to have a deeper understanding of the experiences around the introduction of the QI initiatives in a level five faith based hospital in Nairobi County, the current study used qualitative method (case study design). There has been an increased advocacy in the use of case study design in for the many advantages that it carries. Proponents of this approach argue that a rigorous explorative case study increases the validity and reliability of research findings (Zainal, 2007). The approach allows the researcher to take an explorative approach data collection, analysis and interpretation.

Zaidah (2007) noted a number of advantages in using case studies. First, the examination of the data is most often conducted within the context of its use, that is, within the situation in which the activity takes place. Secondly categorical responses of individual subjects are also held with high regards thus cautioning researchers not to confuse case studies with other types of qualitative research designs. Third, the detailed qualitative accounts often produced

in case studies not only help to explore or describe the data in real-life environment, but also help to explain the complexities of real life situations which may not be captured through experimental or survey research. (Zaidah, 2007)

The current study employed a case study design approach as the researcher wanted to include diverse participants across with varied characteristics such as gender, age, and profession and work experience at STFCH. A variety of data collection methods (in-depth interview and the FGD) were used in this study to test the agreement of the findings obtained from different measuring instruments; to clarify and built on the results of one method with another method, and lastly to demonstrate how the results from in-depth interview impacted on subsequent method of FGD or inferences drawn from the results (Tashikkori & Teddlie, 2003).

A case study design was selected to allow detailed examination and contextualization of the experiences encountered in establishing QI initiatives at the STFCH. The design enabled detailed analysis of experiences around the introduction and implementation of QI initiatives, guided by the Walt-Gilson Policy Analysis (Buse, Mays & Walt, 2012).

3.3 Study location

The study was carried out at STFCH. Purposive sampling was applied to select the facility, since it was recently upgraded to level five hospital and is the process of acquiring ISO certification. The focus in the facility was appropriate since it would provide the justification for the conception of acquisition of ISO certification in a private facility. Academically, the STFCH was justified for examination in CQI since there was no documented evidence on its initiatives to acquire ISO certification. Past empirical examination has been skewed towards public facilities and those in private facilities have focused on non community based hospitals despite of them having pivotal role in provision of health care in developed and developing economy. For instance Ndambiri et al., (2013) discussed formats of air improvement in Nairobi; it paid limited attention to actors, challenges on quality improvement. Moreover, these past studies had failed to document on key drivers of QI in health care despite of it receiving negative media publicity.

Geographically the study was undertaken at Kasarani constituency, Clay city ward. STFCH is located along Kasarani Mwiki off Thika superhighway and its approximately 16 kilometres from Nairobi Central business district. It is a faith-based level five hospital with a 150 bed

capacity offering 24 hours comprehensive in-patient and out-patient services. The hospital offers both general and specialized services on daily basis. It serves clients from Nairobi, Kiambu, Muranga, Machakos, Kajiado and Nakuru counties mostly with low and middle socio-economic backgrounds**.** The facility boarders 20 health facilities of which one is privately owned and eight are 24 hour facilities. Being one of the facilities operating for 24 hours then CQI cannot be overlooked. Despite of it having adopted numerous measures to improve on its service delivery, internal and external challenges have derailed the attainment of quality service delivery. For example, being a mission hospital there are community expectations to receive free or subsidised medical care. This has exposed the facility to external attacks in the social media more so Kasarani on the lookout a face book page which draws its membership from Kasarani residents and their air their issues in it. Inability to acquire digitised laboratory and radiology department machines, this has led to outsourcing of some services which may impact quality and customer satisfaction negatively. Lack of specialised clinics this has led to customer disappointments more so when referred to specialised health facilities. Low human capital has hurdled handling of specialised patients cases and denied the facilities the ability to serve and generate revenue despite having some facilities.

3.4 Study Population

The study focused on STFCH Kasarani, which was purposively selected since it had recently passed ISO 9000: 2015 stage one auditing. The target population was comprised of by clinical, non clinical and higher management team. HMT were found suitable for the study based on their responsibilities as drivers of vision and mission of STFCH. Since CI was part of STFCH strategic plan 2015 -2019 and HMT was the custodian for implementation, monitoring and evaluation of it, they had requisite information for the study. Quality improvement demand budgetary allocation and HMT was tasked with sourcing and allocating finances which will aid in attainment of quality services.

Clinical and non clinical staffs were selected by the virtue of their positions. They were close to clients (patients) and their input is paramount in management of STFCH. Moreover, their role in service delivery is paramount and cannot be ignored. Additionally, they were directly or indirectly involved in CQI. Given their position and education background they were uniquely positioned to provide requisite information on quality improvement. In this study

the target population comprised of nine higher management team members, 152 clinical staffs and 81 non clinical staffs as shown in Table 3.1.

Table 3.1 Target Population

Category	Number
Higher Management Team	9
Clinical Staffs	152
Non Clinical Staffs	81
Total	**242**

Source (Author, 2018)

3.4.1 Sampling Techniques

After identification of target population and STFCH as the study site, sampling was applied to select representative of the target population. Owing to disintegration of respondents there were clustered into three groups which included HMT, clinical and non clinical staffs. According to Kothari (2011) cluster sampling is appropriate when group from an identified study can be grouped into different groups owing to levels of knowledge and degree of awareness on the item under study investigation. Moreover, cluster sampling is characterised with flexibility which allowed adoption of alternative sampling techniques in specific groups.

Stage one: Higher Management Team

Staff in the senior management positions namely the administrator, the hospital medical superintendent, senior nursing officer, the human resource officer, the procurement manager, QA manager, accounts manager, nurse shift manager forming the HMT were purposively sampled as participants in focus group discussions. This team was considered in the study since it drew membership from an array of departments in STFCH and it had expert knowledge for decision making. This gave it better understanding of different policies incorporated in STFCH. Moreover, there were better placed to understand risks and threats facing the facility in quality matters. Furthermore, owing to their expertise they better

understood quality gaps and how they can be mitigated to improve on service delivery and client satisfaction.

Stage two: Sampling of Clinical Staffs

Non proportional quota sampling was used to select 15 clinical staffs from different units in STFCOH, they constituted a pool of key informants and members of ISO team FGD. These respondents constituted 10% of clinical staffs which according to Mugenda and Mugenda (2013) a sample comprising of 10 percent or more is appropriate for social sciences research.

Stage Three: Sampling of Non Clinical Staffs

Non proportional quota sampling was used to select eight non clinical staffs that formed respondents the pool of key informants and members of ISO team FGD.

Finally, to form reliable and formidable key informants and FGD members, purposive sampling was adopted to select those respondents from clinical and non clinical staffs who had reliable information of CQI in STFCH. Members of HMT provided information on who could be reliable respondent since they were more involved in quality improvement measures in STFCH.

3.4.2 Sample size

STFCH community hospital is the process of attaining ISO certification. To facilitate this quality improvement champions were recruited and trained. This team constitutes of members drawn from different departments, they have undertaken training on quality initiatives. Members of this team serving in clinical and non clinical departments constituted in depth interview respondents. This pool had expatriate knowledge in CQI and they were actors in implementing quality improvement measures in the facility. Although, these members were drawn from clinical and non clinical staffs all of them were auditors of quality improvement in STFCH.

Two focus group discussions (FGD) were carried out. The first FGD constituted of 8 ISO team members. This team drew membership from clinical staffs and non clinical staffs. Non clinical staffs' members included subordinate and front office members. Clinical staffs constituted laboratory technologists, clinical officers and pharmacy technologists. Since the

facility is owned little sisters of St. Francis they had a representative in ISO to align their facility motto with their community motto. The second FGD drew its 7 members from HMT, there were considered knowledge on quality improvement since they were involved in day to day facility operations. Additionally, they linked STFCH with external stakeholders and they were better placed to respond to quality issues raised by clients. There distribution was summarised as shown in Table 3.2.

Table 3.2: Sampling Strategies for Collecting Qualitative Data

Study Population Unit	N	Sampling Method	Sample Size
Higher Management Team	9	Purposive	9
Clinical Staffs	152	Stratified quota sampling	15
Non clinical Staffs	81	Stratified quota sampling	8
Total	**242**		**32**

3.5 Qualitative data collection approaches

According to Denzin and Lincoln (1998), Howe 2004, Burns and Grove (2009),

Qualitative data provide insights into how people view and are affected by an issue and frequently provide new ideas about how to resolve it. This study is purely qualitative where a case study approach was used to collect data on the experiences of participants regarding the introduction of QI initiatives at a level five faith based hospital in Nairobi- Kenya. Central to qualitative inquiry is the accepted view that experience, social perspectives, and circumstances give rise to multiple "truths" regarding a target subject (Lincoln and Guba 1985). . Interactions between participants and researchers in natural settings with few boundaries are key to this approach and provide a wealth of information not available using quantitative methods. The current study explored a variety of sub-topics with different sub-themes related to QI strategies/ initiatives among them the role of the different actors, policy content, policy context and the processes experienced in the introduction and implementation of QI initiatives at the hospital using key informants.

The main tools for data collection in this study were in depth interview guide and focus group discussion guide. Data collection was carried out with the assistance of two research assistants. Prior to commencement of data collection authorization was sought in Strathmore School of business ethical committee, post graduate school, national commission for science and technology and the human resources department of STFCH. The two research assistants were introduced to human resources department of STFCH and they were taken through standard operating procedures of the facility. With the assistance of human resources department research assistants were assisted to identify members of ISO team who were conversant with CQI in facility.

Upon identification of ISO team members from different departments, the research assistants booked appointments with each of those who were selected as respondents for in depth interviews and FGD. Owing to the nature of working schedules in the facility some respondents were interviewed during the day and others at night. Prior to executing in depth interview the research assistant stated the study objectives, assured respondents confidentiality and anonymity even though both audio and notes were taken during the interview. Upon respondents agreement to participate in the study there were guided through consent form and they signed as an agreement to participate in the study. Even though, they filled consent form they were free to withdraw at any stage in the interview. Respondents were assured that they won't be coerced to respond to all questions during the interview.

Similarly, anonymity, confidentiality and free will were maintained during focus group discussions. ISO team FGD was coordinated through assistance of human resources manager and unit heads in various departments. Since STFCH usually hold assemblies on Thursdays, the research assistant requested for an FGD after assembly. Members of ISO were informed two days in advance of the intended exercise and those on duty in that day were requested to inform human resources department who in turn confirmed availability of ISO teams on Thursday at 8am. The research assistants were in SFTCH at around 7.30am and they reported to human resources manager who organized the meeting at 8am. Prior to FGD all participants were issued with a copy of consent form and guided on how to fill its details. Upon filling of consent forms, FGD was guided by the research assistants who did audio recording in addition to taking notes.

HMT FGD was carried out in a Friday at around noon. The choice of the day was guided by the fact that STFCH has a culture of holding bi monthly HMT meeting on either Wednesday or Friday. The research assistants were introduced to HMT by human resources manager and he reported the main purpose of their visit. After introduction one research assistant informed HMT the main purpose of the study and its specific objectives of the study. Moreover, they justified the choice of the facility as being on transition stage to adoption of CQI. Thereafter, all members of HMT were issued with a copy of consent form and they were guided on how to fill. After their consent to carry out FGD there were guided by the two research assistants.

3.6 Pilot study

A pilot study was done at the Ruaraka Uhai Neema Hospital in Roysambu Sub-County to strengthen the data collection instruments. Piloting of the interview guide increased the likelihood of success and provided valuable insights for other researchers. Neema Hospital was selected because it shares key characteristics with St Francis (both faith-based hospital and located in the same sub-county and along Thika road super highway). It was found out that Ruaraka Uhai Neema hospital were introducing and implementing quality Improvement Initiatives through a Safecare model where they had just achieved the level 4 accreditation and were working hard to achieve level 5 accreditation by Safecare while STFCH is on the process of stage two audit of ISO certification hence another interesting justification why Ruaraka Uhai Neema was the ideal pilot site for the study

Interview guides were tested for relevance and time taken to collect data from each respondent. An appointment to meet the hospital director was given on a Wednesday morning. Upon arrival at the Neema Uhai Hospital, the researcher requested to meet the director who happened to be in a meeting. He promised to meet the Principal investigator once he finished with the meeting. After the morning greetings, short introduction on the purpose of the visit using the using the appendix 1 information on participant's preparation for the in-depth and Focused Group (FGD) interview. He informed the researcher that most of the senior and middle level managers were in another meeting but he would get three key people from them to participate in the pilot study instead of waiting for all of them to get a common free time together which would be very difficult. When the FGD team comprising of the Matron and the information manager were ready, an introduction using appendix 1 was done and informed consent obtained using the guidelines of appendix two in part one and

two. The respondents were informed that a voice recording will be done to record the data throughout the interview and appendix three was availed to them for consent. The interview guide on appendix four was used to carry out the pilot study while noting all the verbal and no-verbal communication by the respondents. An appreciation was done to the respondents using the appreciation letter on appendix six.

Later on the director was taken through an in-depth interview by first introducing the researcher and the study using the appendix one information, later and informed consent was obtained using The appendix two, informed consent obtained using Appendix three, and interview guide used to obtain information using interview guide on appendix five. During the interview, the respondent excused himself for a five minutes, he then came with a manual on the "safecare" accreditation process to demonstrate how far they had achieved as a hospital on quality improvement. H e went ahead to inform the researcher on the best composition of the QIT that would carry out their responsibilities as QI team more efficiently and how much the introduction of the "safecare" accreditation process has improved on their general performance. After the completion of the interview, an appreciation was done using the format in appendix six with the whole interview taking forty five minutes for both the FGD and thirty minutes for the In-depth interview.

Through this process, the researcher noted that the interview guide was appropriate, and effective in answering the research questions with very minimal challenge of time taken to ensure rigor in data collection. The senior manager had a time constraint because of demanding work responsibilities; however, he managed to offer his time for the pilot process. This prepared the researcher to be patient with the senior managers during data actual collection process even it meant postponing a planned interview due to unavoidable circumstances on the part of senior hospital managers.

3.7 Data analysis

Data for this study emerged from qualitative research design that consciously blended across all the stages of the research process. These strategies were strategically employed to validate al collected data and to transform it to comprehensive information in order to address all the research questions (Creswell & Plano Clark, 2011)

Data were analyzed in different stages. An analysis of literature was an on gong process that informed the initial design of the case study interview guide. Descriptive statistics were generated, and the results presented in tables and narrative form.

The qualitative data was received in verbatim, transcribed and recorded in themes and sub themes**.** Qualitative data analysis was underpinned by grounded theory (Charmaz 2008). This approach of data analysis takes a systematic approach with emphasis on theory generation from data. It analyses data without preconceived ideas, and theory must inductively emerge from the data (Glaser & Strauss, 1967).

This approach was used because it has been tested and credited in its appropriateness in qualitative research. In the current study, data were first transcribed and put in an excel sheet. To increase the riqor and avoid biasness in analysis, the researcher listened to the audio tape more than once (Siccama & Penna 2008). Interview scripts were read several times, views of different participants were analyzed and constantly compared to check similarities and differences. Further the researcher met with the research assistant several times to critically reflects on the data and emerging themes which was then organized and presented in a narrative form.

Although, the lead researcher was a catholic nun and CEO of STFCH, from conception of problem statement to completion of the study all scientific procedures were adhered to in the study. Despite of being the CEO respondent's confidentiality and anonymity was maintained through the study. In fact, ethical procedures were adhered to in all stages to avoid biasness and scholarly comprise owing by being a nun in little sisters of St Francis and a member of senior management. Throughout the data collection stage pseudo name was used to avoid create anxiety amongst respondents.

Data was collected by voice recording upon informed consent by the respondents. Data collected from the individual interviews and focus group discussions was first transcribed then subjected to content analysis. This was effective in the categorization of behavioural data with the objective of classifying, summarizing, and interrogating the resulting information. Content analysis was done in two levels. The first level of analysis provided a descriptive account of interview data while the second level provided a more interpretive analysis, which did not only focus on the response but also the implied or inferred information. The results were presented in tables and a narrative synthesis form presented in

topics based on the four study objectives, with appropriate interview quotes from the respondents added to enrich the discussions.

3.8. Reliability and Validity of Instruments

This research put into consideration various aspects which include quality control, validity and reliability of research instruments as follows.

3.8.1 Quality Control

The researcher employed valid and reliable instruments to ensure that quality is adhered to. This was effected by establishing the validity and reliability of the instruments as indicated below.

3.8.2 Validity

Validity refers to how well a test measures what it is purported to measure (Phelan; Wren 2007), A pilot study was carried out to ensure the reliability and validity of the data collection instruments. The piloting was in Uhai Neema Hospital, which was deemed to have commendable similarities with STFCH. It was during the pilot survey that it was realized that some questions in the questionnaire were not easily understood and that others had similar meaning. It was also noted that Management team is not readily available for interviews and that the researcher had to be very patient in fitting to their available time.

Such questions were reframed, while those which had similar meaning were removed. Piloting was meant to establish accuracy and consistency of the results to be collected in the selected study area.

In order to test the, a test sample of 10% of the study sample size was used. This is approximately 3 members of the hospital management team to include 1 hospital director, I nursing officer, and 1 ICT Manager. Research assistants were trained to guarantee their effectiveness in the data collection process. The researcher having had prior knowledge and experience in academic research, handpicked university graduates who has some basic training in data collection and research and also teachers research methodologies to diploma students at a nearby local university

The researcher then introduced them the data collection tools and trained them on every question in the interview guide including the various approaches of administering. They were trained on how to introduce themselves, the study and also on how to obtain informed consent from respondents. A pre-test was done with the research assistants before the actual study in order to ensure that they understood the tools in order to realize the expectations of the study.

3.8.3 Reliability

It should be noted that, while the determination of content validity is largely subjective, especially in the case of qualitative data, expert opinions can be used to judge how well an instrument meets accepted standards (Meneill & Chapman 2005). Marczyk, *et al.* (2005). This study took several steps to ensure content validity. First, our methodology and results were assessed by the student research supervisor (who is also an expert in qualitative research and in quality improvement for healthcare).

Reliability in this research was taken to mean the degree to which an instrument, when tested, consistently measures whatever it is targeted to measure. The more reliable the test is, the more confidence it reassures that the scores obtained from the administration of the test are the same if the test were to be re-administered (Gay, 1987).

According Marczyk, (2005) & Mugenda, (2008), reliability in research is influenced by random error in the data, which is the deviation from the true measurement due to factors such as over estimation, underestimation, inaccurate coding, interviewer bias, and concludes that random error is inevitable in any research.

3.9 Limitations of the Study

A few limitations were experienced in conducting the study, but they were overcome in the ways mentioned below:

i. It was difficult to get senior management staffs for interviews on the scheduled time and in full numbers. The researcher and research assistants were patient enough to re-plan for convenient time where the managers would be available for the interviews.
ii. The study being carried out in a hospital setup, some respondents were working in different shifts like night duty, others were required to be on duty during the scheduled

FGDs and hence getting them at once was difficult. Special arrangements were made for them be interviewed early in the morning before starting off their duties while others had to be given special shifts by the management so as to be available for the in-depth interviews and the FGDs

iii. Finally, during both the FGDs and the in-depth the interviews, the probing and the respondents answering the questions, the aspect of trust and interest to participate in the study made the respondents not to be conscious of time thus each interview would take much time than expected hence exceeding the planed time period. The respondents were explained and requested to understand if the interviews took longer than expected of which they did and appreciated without any complain.

3.10 Assumptions

The study was based on the following assumptions:

i. The hospital was on the process of getting ISO certified
ii. The Hospital mission is to offer quality and affordable healthcare services
iii. The that current management team is very passionate about CQI as the best strategy of ensuring patient safety, improving on customer satisfaction, increasing customer confidence on their services and offering them the best competitive advantage in the health sector not forgetting improved financial performance due to reduced wastage.

3.11 Ethical considerations

Ethical considerations are very critical for any research. These are considerations that ensure that the researcher does not go overboard and infringe on the rights of the others or the participants in the research The ethical considerations in research work demands that the work should be authentic, original, academic and scientific enquiry done without bias (Mugenda & Mugenda, 2008).

The researcher applied for permission from the National Commission for Science, Technology and Innovation (NACOSTI) to allow the research to be carried out within the boundaries of Kenya. Permission was also sought through the university's ethical review board, after the university had approved the proposal which underwent the rigorous academic screening process for quality through the research office and the allocated research supervisor. The initial permission was provided by the approval letter issued by Strathmore

university business school (appendix VIII). This was also accompanied by an ethical approval letter from Strathmore university, authorizing the researcher to carry out research work on **"**introducing continuous quality improvement initiatives: a case study of St Francis Community Hospital in Nairobi Kenya (Appendix VII).

During data collection, informed consent of the respondents was obtained. Biber & Leavy (2011) and Mollet (2011) insist that, the consent of the respondents in the study area must be sought before engaging them in the process of data collection. Respondents were also reassured of their anonymity, and that the information collected would be treated confidentially, thus, the welfare of the informants was accorded the highest priority, that is their dignity, privacy and interest were protected at all time. The three graduate research assistants in this study were trained and so qualified to enhance the quality of the research. The researcher and the research assistants were conversant and familiar with the custom, culture the seriousness of the research undertaken.

The questionnaires and the questions guidelines were structured in a manner that they did not cause tensions among the respondents. No respondent was coerced or tricked to give information. They voluntarily responded to the questionnaires. Respondents who had information but were afraid due to security were given time to give these information privately. Therefore procedures were put in place to protect confidentiality of the information and the anonymity of the participants in the research parishes. Several authors, whose materials and documents were referred to through citation were acknowledged in the research to avoid plagiarism.

The study operated according to the required ethical standards of the university and STFCH. The principle investigator acquired both the ethical approval from the ethical review board of Strathmore University Business School (SUBS) and an official introduction letter seeking permission to carry out the study at STFCH in accordance with the requirements and standards of the ethical board. Permission to carry out the study was sought and granted from the management of the hospital.

The researcher disseminated information to the participants on their rights and duties throughout the research process. This was aimed at protecting the autonomy and freedom of

the respondent throughout the study thus improving the objectivity of the research process. Participants in the research were assured of the confidentiality of the information they provided and furnished with an informed consent document to sign after agreeing to participate in the study.

To ensure confidentiality and anonymity of the respondents, pseudo Letter names were used in reference to discussions and paraphrasing of individual quotes. Also a research assistant was involved in data collection as the principle investigator was a senior member of the HMT thus ensuring free and unbiased participation by the respondents.

3.9 Dissemination and utilization of results

The results of this study will be shared with other middle size hospitals in Kenya aspiring to enhance quality healthcare delivery through the introduction of quality improvement initiatives. Through this information, it will be possible to develop ways of improving patient satisfaction and outcomes through a prospective policy formulation process.

CHAPTER FOUR:
RESEARCH FINDINGS

4.1 Introduction

The key research findings were presented in this chapter. As discussed in Chapter three, this was a qualitative (case) study, with data collected via individual and group interviews. Analysis sought to describe the views, opinions and positionality of different actors on the introduction and implementation of the QI initiatives, and explore in-depth facilitating and hampering factors. The study examined the QI policy content and expected outcomes, and explored contextual factors that may have contributed to the hospital adopting the QI initiatives.

4.2 Interviewee characteristics

A slight majority of interviewees were female (Table 4.1a). All respondents were aged between 31 to 40 years, with a minimum and maximum age of 32 and 37 respectively. The respondents were drawn from different departments with the majority being nurses. Others included laboratory technologists and medical officers. Diploma holders were the majority, followed by undergraduate degree holders and Masters' degree holders. Most of the respondents had served at St. Francis for more than six years and were relatively well versed with the history of the hospital.

Table 4.1a Bio Data for the in-depth interviews

Demographic Characteristic		Frequency	Percentage
Gender	Male	3	42.9
	Female	4	57.1
	Total	**7**	**100**
Age	Below 30 Years	0	0
	31-40 years	7	100
	Total	**7**	**100**
Designation	Lab technologists	1	14.3
	Nurses	3	42.8
	Medical superintendent	1	14.3
	Subordinates	1	14.3
	Quality assurance manager	1	14.3
	Total	**7**	**100**
Professional qualification	Diploma	4	57.1
	Degree	2	28.6
	Masters	1	14.3
	Total	**7**	**100**
Period of service	Less than 1 year	2	28.6
	1 to 3 years	0	0
	4 to 6 years	2	28.6
	Above 6 years	3	42.8
	Total	**7**	**100**
Work experience	1 to 3 years	0	0
	4 to 6 years	2	28.6
	Above 6 years	5	71.4
	Total	**7**	**100**

Bio Data for HMT members who participated in the FGD

This discussion is based on the illustrations of table 4.1b bellow. The study participants from this team were 7 members who participated in the FGD out of the total nine members which was a quite a good representation at 77.8%. A majority of the respondents were males at 71.3% (Table 4.1b). 83.3% of the respondents were aged between 31 to 40 years old. They were drawn from the senior management team commonly referred to as Hospital Management Team (HMT) with the majority being bachelor's degree holders at 42.9%. Most of the respondents had served at St. Francis for less than one year at 42.9%. They were very enthusiastic about CQI as the greatest driver for growing the hospital into a teaching and referral hospital. The one senior member who represented 14.9% of the total respondents had

served for more than 6 years had rich work experiences and was relatively well versed with the institutional memory.

Table 4.1b: Bio data for the HMT FGD

Demographic Characteristic		Frequency	Percentage
Gender	Male	5	71.4
	Female	2	28.6
	Total	**7**	**100**
Age	Below 30 Years	0	0
	31-40 years	5	83.3
	Above 40 years	1	16.7
	Total	**7**	**100**
Professional Qualification	Diploma	2	28.5
	Degree	3	42.9
	Masters	2	28.6
	Total	**7**	**100**
Period of service	Less than 1 year	3	42.9
	1 to 3 years	1	14.3
	4 to 6 years	2	28.6
	Above 6 years	1	14.9
	Total	**7**	**100**

This discussion was derived from the information collected during the FGD with the QIT popularly referred to as ISO team at St Francis Community hospital as illustrated on table 4.1c bellow. Total respondents were eight for which five were female at 60% where as males were three representing 40% of the total respondents. 80% (7 members) of the respondents were aged between 31 to 40 years old and only 20 % aged 40 years. Majority of the respondents at 62.5% were diploma holders, 37.5% degree holders and none of the participants had a master's degree. 40% had served in the hospital for a period of 1-3 years, 20 % for a period of 4-6 years and another 40% had worked in that hospital for more than 6 years.

Table 4.1c: Bio Data for QIT (ISO Team) FGD

Demographic Characteristic		Frequency	Percentage
Gender	Male	3	40
	Female	5	60
	Total	**8**	**100**
Age	Below 30 Years	0	0
	31-40 years	7	80
	Above 40 years	1	20
	Total	**8**	**100**
Professional Qualification	Diploma	5	62.5
	Degree	3	37.5
	Masters	0	0
	Total	**8**	**100**
Period of service	Less than 1 year	1	0
	1 to 3 years	2	40
	4 to 6 years	3	20
	Above 6 years	2	40
	Total	**8**	**100**

4.3 Role of the various actors in the implementation of QI (Policy Actors)

This discussion was based on the data collected from the study respondents as illustrated in table 4.2 bellow. It is based on the first objective of the study which sought to describe the role of different actors in regards to their views, opinions and positionality on the introduction and implementation of the QI initiatives. The actors interviewed included clinical staff, subordinate/non-clinical staff, hospital management team (HMT), and staff at the quality assurance (QA) department. In-depth interview and focus group discussions (FGDs) were carried out. A thematic analytical approach was used, with responses being categorized as follows; role of staff at the hospital in the implementation of QI activities/ initiatives undertaken by St. Francis, their individual understanding of QI and the staff awareness on the importance of QI at the hospital

Questions sought to explain the roles played by the various actors, and to understand the extent to which the actors understood their duties, and the role of QI in their work. The discussions bellow were informed by the responses received as illustrated in table 4.2

The HMT understood their roles to include providing leadership, championing QI, allocating resources to QI initiatives, linking the facility to external stakeholders charged with the mandate of overseeing continuous quality improvement in healthcare delivery, developing and maintaining the QI guidelines, and managing patient feedback to promote client satisfaction and minimize client loss and even worse negative media publicity.

During the HMT FGD, one member emphasized their role in managing feedback.

> *"We are concerned about patient feedback. We have shared mobile phone numbers in strategic places requesting for patient feedback. Through an SMS platform we are able to interact with our patients on a timely basis. This method is more reliable as compared to traditional suggestion box. We hope to introduce bulk messaging platform so as to create real time communication and the charges will be met by the facility".*
>
> **HMT respondent D**

A senior clinical staff understood his roles to include provision of leadership on all clinical aspects, supervision of clinical operations and processes, and ensuring patient safety in surgical procedures. His other roles included providing guidance to the management while hiring medical consultants and supervising medical expatriates to ensure quality service delivery. The clinical staff members (clinicians, doctors, nurses, pharmacy and laboratory technologists) identified their roles to include treatment, diagnosis and provision of health education to patients.

One of the senior clinical staff said that he oversaw clinical governance, ensuring that standard operating procedures (SOPs) were adhered to. He also sensitized clinical staff on the need to adhere to SOPs and stressed on the importance of appropriate modes of communication.

> *"There is a tendency of some clinical staff to write in short form. This creates communication breakdown and may be prone to misinterpretation. To address this hurdle, we discourage use of short notes during diagnosis".*
>
> **Interview with a senior clinical staff**

A senior clinical staff also noted that to ensure QI, clinical staff were expected to provide quality care and guidance on medication dosage and administration, advise patients on treatment options, referring critical cases on time, and participate in continuous medical education.

A senior member of the QIT said that their roles included planning for quality health services, managing clients' feedbacks, spearheading the hospital accreditation process, giving direction towards QI, promoting patient safety, developing measures to reduce hospital infections, organizing QI workshops, advising the HMT on improving client satisfaction.

The quality improvement team comprised of heads of various departments within the hospital. They viewed their responsibilities as consisting of coordinating and implementing quality improvement strategies in the facility, documenting and maintaining records of QI activities. They also noted that they are expected to review QI progress and document activities undertaken through regular QI reports. Other tasks mentioned included holding regular meetings to create awareness on QI, motivating staff to embrace QI initiatives, linking the hospital to accreditation/ certifying bodies, and evaluating and rewarding employee QI performance.

> *"We monitor diagnosis and prescription from every clinical officer on a daily basis and in cases where there is a problem; we contact the clinical officer and advise on alternative prescription. In some cases we advise against injections after studying patient's symptoms from our system".*

Clinical staff member interview.

Interviewees observed that the hospital had recently established a QA department to promote QI. The department heads had the role of overseeing QI, internal audit, evaluating and monitoring the SOPs within the facility, managing customer feedback, informing management on regulatory requirements/changes and preparing regular QI report.

Non-clinical staff members perceived their roles to include registering clients using a health management information system (HMIS), marketing, preparing and serving meals, cleaning wards and linen, repairing and maintaining hospital equipment and providing religious services according to the area of an individual's specialization or area of one's operations.

To implement QI, non-clinical staff said they were expected to provide timely and reliable reports to clinical staff, prepare regular patient records on monetary, billing and advice on risk mitigation strategies to be deployed by the facility to minimize risk and promote patient safety.

> *"Since we are also involved in laundry procedures, we always advise management on the most appropriate measure to be taken to minimize chances of infections related to patient clothing".*
>
> **Non clinical staff interview.**

> *"Our non-clinical staffs are expected to communicate on timely basis with corporate insurance companies to ensure that all medical procedures which ought to be paid are attended to on time. This enhances customer satisfaction and minimizes turnaround time. This is only achievable with an efficient and reliable communication mechanism".*
>
> **HMT FGD, Respondent Number F**.

Table 4.2 illustrates the views of actors on their roles in relation to QI at the hospital.

Table 4.2 Role of actors in the Implementation of Quality Improvement Activities in St. Francis Community Hospital

Actor	Roles in Implementation of QI activities
Higher Management Team	To provide leadership and be champions of quality improvement initiatives. To mobilize and allocate resources to improve QI To link the facility with external QI stakeholders, for instance, MOH To ensure that severely ill patients seeking outpatient care are served first To manage customer feedback to minimize negative media publicity To establish guidelines for QI
Senior clinical staffs	To oversee the medical department and ensure adherence on SOPs Determine the language of communication to be used by clinical staff. Sensitize clinical staff on the need to conform to standard operating procedures. Ensure that all clinical staff adhere regulatory standards
Clinical Staffs	To provide quality medical care in inpatient and outpatient department. To provide guidance on the right medication and dosage for patients. Advise patients on the best procedure to be administered to. Referring critical cases on time to minimize patient morbidity and mortality. Regular participation in medical care provider's round table to harness our skills.
Non-clinical Staffs	Provision of timely and reliable reports to clinical staff. Advise on mitigation strategies to minimize risk and promote patient safety
Quality Assurance Manager	To oversee QI and internal audit. To evaluate and monitor operating procedures within the facility. Monitor and update quality policies and notify regulatory changes. Preparation and dissemination of regular QI report. Efficiently Manage customer feedback on a timely manner Spear head the ISO certification Process
Quality Improvement Team	Carry out periodic internal audit to check conformity and non-conformity in different departments. To support management by acting as the link between staff and HMT. To sensitize departments on QI strategies deployed by the facility Prepare monthly QI internal audit report.

4.3.1 The understanding of Quality Improvement among Employees at St. Francis Community Hospital

The study noted that although most of the key respondents who participated in the study were charged with different managerial responsibilities most of them expressed diverse opinions and understanding of the meaning of QI. One of the respondents defined QI as "a way of working as per quality of hospital by trying to minimize errors". Another one understood it as "Doing things in a standard manner that meets the requirement of what you have to offer". A third one stated that "Quality is moving target; no single time when improvement will get to an end that is why the facility is contemplating to adopt a Plan Do Study Act (PDSA) cycle as its quality improvement model". A forth one described QI as "Having a system that allow oversight to all the internal activities of the hospital, monitoring and evaluating them on daily basis". A fifth respondent described QI as "Following stipulated standards and auditing them in order to check the conformity and act accordingly". (QIT FGD – Respondents, & the key respondents respectively)

4.3.2 Awareness of the actors on the Importance of QI activities at the St. Francis Community Hospital

The study sought to also gauge the level of awareness of QI initiatives being undertaken.

The hospital management team (HMT) felt that the QI initiatives were helping the hospital to enhance bottom up and top down communication and reduce chances of medical errors. They also felt the initiatives were strengthening organization performance, and promoting client retention and satisfaction, as well as employee satisfaction and quality of life.

Others felt that the QI initiatives were promoting continuous evaluation and improvement aimed at ensuring acceptable standards were maintained. This was corroborated by clinical staff who reported that QI acts as a measure to attract and retain customers, improve patient confidence while seeking medical services, improve service time, to enhance capacity building and development through different seminars and workshops and to improve quality of laboratory testing.

> *"Initially when we had not commenced the process of quality certification it was so hard for all laboratory technologist to study information existing files in this office.*

This complicated our operating procedures and complaints were many. We commenced the process of ISO certification. It has resulted in some changes in our procedures, I am happy to report the processes have resulted in us joining accreditation courses. This has improved on our service quality and minimized conflicts with customer".

Clinical staff interview.

A non-clinical employee noted that QI activities, particularly patient feedback mechanisms, were adopted because of negative feedback from different stake holders like staff and clients and high competition from neighbouring health care providers. Others also mentioned other factors such as the need to promote cohesiveness and team work and ensure timely and regular maintenance of health facilities.

The hospital quality assurance manager justified introduction of quality improvement strategies at St. Francis Community hospital due to adoption of participatory community development in management and leadership, to improve on turnaround time, to promote quality and safe health outcomes in our different procedures and to promote spill over effects on quality service delivery within the facility. She claimed that

"….prior to introduction of quality improvement measures our clinical officers had a six hour shift per day. There were no targets hence there is no control on patient waiting time and no one paid special attention to documentation and patient needs after all the shift could soon come to an end and another staff to report on work station to continue with the care, there was no ownership of the processes. This was a recipe for complains and negative feedback from patients and clients. We resolved to have a minimum target of 25 patients in every 12 hour shift and a reward for extra patients by each clinical officer. This has minimized waiting time and enhanced our clients' satisfaction"

(QAM in-depth Interview, Respondent Number B)

According to the quality improvement team QI strategies were important in a health facility in order to develop, promote, nurture safety health and culture, to develop procedures and policies which are working well within the facility, to create cohesiveness and team work

within the facility, to promote effectiveness and efficient utilization of organization resources and promote adoption of ethical medical practices within the facility. During an FGD with HMT a member noted that

> *"Through quality initiatives activities we have embraced drug coding which has enhanced management of drug stock within the facility hence minimizing on waste, over stocking, expired drugs, stock outs, drug errors and drugs getting stolen by irresponsible staff. Through this approach it is easy to manage and control drug utilization in the facility. Also prior to ISO certification process there was no cleaning company in place, this complicated our operation procedures hence posing a big risk of hospital acquired infections, unconducive and unsafe work environment for all the stake holders. Now many patients appreciate and recommend our hospital for cleanliness through the various feedback forums"*
>
> **(HMT FGD, Respondent Number D).**

HMT reported that they were aware of measures to improve employees' attitude through regular symposiums, hiring more employees to minimize turnaround time, automation of most hospital procedures and regular update on patient identification procedures. During the focus group discussion with the team, a member reported that

> *"....Upon the preparation of our strategic plan we realized the need for quality service delivery. We audited our staffing needs and since then we have reorganized our organizational structure in order to accommodate a quality improvement department. Through this process we have identified staff needs and have recruited more staff to reduce on turnaround time"*
>
> **(HMT FGD, Respondent Number C**).

According to one of the senior clinical staff, QI awareness is mostly created through staff assemblies, maintenance of medical statistics and regular auditing of information system. This was supported by clinical staff, who reported that the facility has adopted information

system for client management to minimize on errors and enhanced documentation of medical records.

> *"...nowadays we have to date all medical details. Through this approach it is easier to locate and address any complaint raised by patients. As we administer drugs to patients, we evaluate diagnosis patterns against symptoms. If we note any commonality on diagnosis we enquire from specific clinical officer".*

Clinical manager interview

Asked about their level of awareness on QI activities in the hospital, non- clinical staff members cited the launching of an ISO team, adoption of an SMS platform for client feedback and improved knowledge management strategy at the facility. This corroborated with the hospital quality assurance manager who pointed at the preparation and adoption of strategic plan for 2015 to 2019 during which the Hospital should be ISO 9001:2015 certified, preparation of quality improvement guide and manuals, and campaigns on delivery of reliable health care.

> *"Quality management is an intensive documentation process and calls for financial resources. To save on resources, adaptive knowledge management strategies have been adopted in the facility. Through these strategies different departments and units can share knowledge which was acquired in a single section. This minimizes paper work and filling procedures".*

QIT member interview

The interviewee further noted that awareness of QI had been created through development and introduction of Standard Operating Procedures (SOPs) for all departments, introduction of quality assessment metrics in all departments and units, labelling of all hospital facilities, use of innovative methods to minimize patient's conflicts and improved public engagement methods.

Though various employees had knowledge on the significance of health record management, poor documentation was prevalent, in most cases being left to the heads of departments. Once the employees were trained and made to understand the value of record management, they

embraced the concept leading to introduction of QI initiatives. With the inception of the QI initiatives, the documentation process management was enhanced leading to reduction in clinical errors, improved efficiency in patient diagnosis and management, reduced litigations, increased confidence by the healthcare providers, improved intrinsic and extrinsic work environment, and increased clients' confidence in healthcare provision by the hospital.

With the inception of QI initiatives anchored on ISO certification process coding of drugs was introduced leading to security and safety of drugs administration. Cleanliness was also improved by outsourcing of a cleaning firm which was linked to enhanced customer satisfaction.

4.4 The content of the CQI initiatives in St Francis Community Hospital

The second objective of the study sought to examine the continuous quality improvement policy content at the St Francis Community Hospital (policy content). To achieve this, the study examined the awareness and understanding of quality initiative activities among employees at St. Francis. It also assessed the level of involvement of different actors in quality initiatives and the desired expectations from such quality initiatives. The discussions on the second objective (Policy content at STFCH) are based on the responses by the study participants as illustrated on table 4.3 and table 4.4 below.

4.4.1 Quality Improvement Activities in St. Francis Community Hospital

Further, the study investigated quality improvement activities being undertaken in St. Francis community hospital. Responses were grouped according to different QI actors. Some QI initiatives that were highlighted included timely management and adoption of occupation health, efficient patients' feedback mechanisms, adoption of standard operation procedures, internal and external, audits of quality strategies, safety standard on health care service delivery, stock taking, asset registers and inventory and staff identification among others.

> *"We made one out patient nurse a patient manager, she is not stationed in one place but rather she goes round in the waiting bays in all departments within OPD to include consultation rooms, laboratory, imaging department and so on. Her role is to ensure customer satisfaction, comfort and timely/ immediate intervention/*

engagement and help in case of need while observing the first come first served rule but special exemption in-case of dire need for emergency care".

HMT member in an FGD

Clinical managers pointed out that they did clinical audits, reviewed clinical outcomes, reviewed data on major and minor surgeries, audited and monitored the health management information system at the facility. Clinical officers specifically identified, monitored and reported medical errors, deviations from standard operating procedures, documented all medical errors and recommended changes to be effected in the health care information management system.

Administration (non-clinical) personnel said that the main QI activities they were involved in included use of multiple patient unique patient identifiers, adoption of paperless operating platform, reduction on procurement lead time and tracking of non-medical quality metrics at departmental level. Quality assurance confirmed these, adding that the hospital had initiated post medication surveys and established quality accountability score scores to improve quality. In addition, an SMS platform had been initiated to enhance customer satisfaction. Other activities included holding weekly quality improvement team meetings to evaluate ISO certification process and unplanned visits to different departments to evaluate quality performance levels.

A senior member of management noted that because the St. Francis Community hospital was a Faith Based Hospital, she noted that

"Some community members expected free healthcare services, yet that would not be sustainable because the hospital does not get free medical supplies and human resource that provide services ought to be paid. Such kinds of confrontation brought about conflict and in some instances the facility has suffered from negative publicity on social media".

HMT FGD interview

Table 4.3 summarizes QI content initiatives at the St. Francis Community Hospital:

Table 4.3 CQI content initiatives in St. Francis Community Hospital

Actor	Quality Improvement Activities
Higher Management Team	Provision of respectable health care Timely management of health care Adoption of occupation health and safety standards on health care service delivery
Medical Superintendent	Clinical audit Review of clinical outcomes Review of minor and major surgery data Audit and monitor medical information system in the facility
Clinical Staff	Identify, monitor and report medical errors Identify, monitor and report deviations from standard operating procedures Document all medical errors Recommend health care system improvement Share quality information on patient safety
Non Clinical Staff	Use of multiple patient unique identifiers Paperless operating platform Reduction of lead time Tracking of non- clinical quality metrics at departmental level
Quality Assurance Manager	Purchase of medical equipment Post medication medical satisfaction survey Establishment of individual quality accountability scores Chairing regular quality monitoring and evaluation meetings ISO 9001: 2015 certification process Development, introduction, implementation, monitoring and evaluation of SOPs
Quality Improvement Team	SMS platform to enhance patient satisfaction Successful awareness creation amongst employees Holding of weekly quality improvement team meetings to evaluate ISO certification progress Visiting different department to evaluate quality performance levels

4.4.2 Expectations from QI activities

Actors talked about their expectations of QI initiatives.

The HMT members identified the following: increase in bed occupancy by 65%, decreased emergency waiting time, increased patient safety and minimized hospital acquired infections, reduced medical errors, increased bed turnover, reduced waste, reduced staff turnover, and increased client satisfaction.

A senior clinical staff observed that full adoption of the QI processes would promote the adoption and use of clinical guidelines, increase the number/variety of medical procedures carried out, reduce response time for cardiopulmonary resuscitation (CPR), decrease the ICU/HDU readmission, reduce the hospital mortality, reduce post admission complications, reduce number of admission days after an operation and reduce medical errors.

Table 4.4 summarizes staff expectations of the QI initiatives

Table 4.4 Desired Expectations from Quality Improvement Activities in St. Francis Community Hospital

Actor	**Expectations of Quality Improvement Activities**
Higher Management Team	Increased in patient bed occupancy Decreased emergency waiting time. Reduced bed rationing Increased bed turnover Reduced employees turnover increase revenue
Medical Superintendent	Existence of clinical guidelines Increased number of medical procedures carried out Reduced response time by CPR Decrease in ICU/HDU readmission Increased patient safety Reduction in wastage of resources Reduced hospital acquired infections
Clinical Staff	Reduced number of repeat X rays Reduced hospital mortality Reduced post admission complication Reduced number of admission days after an operation Reduced cases of wrong medication Reduced cases of wrong lab results Reduced cases of wrong radiology results
Non Clinical Staff	Reduced admission waiting time Reduced discharge waiting time Low tolerance on injuries
Quality Assurance Manager	Efficiency in operating theatre Improved quality training program. Reduction in post-surgical complications Elimination of hospital infection acquired rate

	Enhancement of employees motivation
Quality Improvement Team	Improved patient satisfaction Reduction in patient complaints rate Elimination of bed sore rates Stage one ISO certification

4.5 Policy Context leading to the introduction of CQI Initiatives at STFCH (policy context).

The third objective of the study sought to explore contextual factors that led to the hospital's decision to introduce quality improvement initiatives (policy context). The study pursued to examine the overall opinions on the state of patient safety and quality of health facilities in Kenya. In particular it sought to assess the structures in support of QI, resources available, hospital's culture on reduction of wastage of resources and promotes patients' safety as outcomes of QI initiatives at St. Francis Hospital. The discussions of this specific objective are derived from the data collected from the respondents as shown on table 4.5 bellow.

4.5.1 Resources and structures at STFCH to Support Quality Improvement

Since its establishment St. Francis community hospital has grown from a dispensary to the current level 5 facility. This indicated a tremendous growth in terms of personnel, equipment, infrastructure, and catchment population. This growth could be attributed to changes in population density within its locality and provision of quality healthcare services. In addition, there has been an influx of competitive and specialised health care providers. This has created a stiff competition among neighbouring health facilities thereby challenging each to strategize on ways in order to acquire a competitive advantage over the others. St Francis Community Hospital took this challenge and made a decision to invest in QI strategies that would differentiate its service delivery as compared to other competitors.

Successful implementation CQI is dependent on organizational structure deployed to support the initiative. Human resource was identified as the most essential resource while planning to introduce or realize any QI initiative as they become the implementers. In St. Francis community hospital, CQI oversight responsibility was done by quality assurance manager and the medical superintendent. Quality assurance manager was expected to provide leadership support by providing strategic framework, monitor, evaluate and prioritize CQI

activities in the facility. On the other hand, medical superintendent was expected to provide medical strategic direction and technical leadership to spearhead provision of quality medical care.

The hospital had created a coordination mechanism which was to be managed by a quality improvement team which drew membership from different departments. This team was synchronized to champion, monitor and evaluate QI. During the FGD with ISO (QIT) team it emerged that the head of laboratory, ICU and maternity departments were coordinating CQI activities in their respective departments. This approach made it easier to provide technical expertise and consequently enhanced attainment of the quality standards at the facility. It also boosted the implementation of QI activities thereby ensuring the achievement of the facility's strategic goals.

To ease oversight responsibility in the facility, QIT was mandated to implement and lead their department in adoption of CQI activities. QIT aided in monitoring, integrating and communicating desired quality goals in St. Francis Community Hospital. QIT reported to quality assurance manager who incorporated their feedback in monthly report. Since the team was multidisciplinary it monitored facility level of compliance as stipulated by quality assurance regulatory bodies. To ease pursue of QIT responsibilities, they developed and coordinated customized expected actions and activities. Individual action was customized into specific, measurable, realistic, timely and achievable (SMART) activities which improved clinical and non-clinical procedures.

In order to promote the implementation of CQI in the facility accountability measures were paramount whereby all actors in the facility owned their QI related activities. In St. Francis Community hospital, QI has led to changes in organizational structure thereby creating the positions of unit managers who would be in charge of their respective departments. Initially, there was no quality assurance manager but after the inception of the QI initiatives the position was created specifically mandated to ensure quality improvement. All unit managers are responsible for overseeing, evaluating, monitoring and implementing QI activities in their departments. Unit managers were expected to report quality actions and recommendations to the medical superintendent and quality assurance manager.

Financial resources were also noted to be a requirement for successful implementation of QI initiatives. The QAM, for example, noted that "the hospital has already spent a considerable amount of money to train the QIT on ISO certification process, printing of the SOPs, registering the ISO certification process with the Kenya Bureau of Standards (KEBs), paying locums to other staff during the meeting/ audit days so as to free the QIT from their daily duties hence concentrate with the meetings uninterrupted. The licensing process for the Certification is also costly and a mandatory requirement" (QAM, in-depth Interview, Respondent Number B).

4.5.2 The hospital culture on Quality Improvement initiatives

Even though delivery of quality healthcare services at an affordable cost was strongly pronounced in the hospital mission statement, a culture of quality improvement was not deeply cultivated among the employees. "The only time that QI was mentioned was during the development of the 2015-2019 strategic plan when the managers of the day mentioned the importance of getting ISO certified by the year 2019. But nothing more was emphasized on the possible continuous quality improvement strategies appropriate to needs of our customers hence we didn't create a culture of QI but in the recent past that is close to one year now, the HMT team in conjunction with the QIT, have persistently emphasized on the importance of CQI by all staff in order to increase customer satisfaction. During our daily morning assembly, campaigns on customer satisfaction are emphasized mostly by the HMT members. Client feedback is taken so seriously such that anyone recognized by a client for good services is publicly acknowledged and the ones being complained of as having not met the customer expectation is offered a supportive supervision so as to improve on his/her interaction with the customer. In our mission statement we are encouraged to exceed our customer's expectation and hence slowly but surely we are adopting a culture of CQI. We have started getting positive complements from our clients which never used to happen as most feedbacks used to be on complains but nothing on complements". **(Clinical Staff Member -In-depth interview, Respondent Number L).**

The above citation was a manifestation of the positive effect of the introduction of QI activities in the hospital. Apparently, before the inception of the initiatives staff members at the hospital did not portray an adherence to a culture of continuous quality improvement. However, with the new initiatives in place a new culture had developed with evidence of

customers giving feedback on efficient services, financial propriety due to reduction of waste, increased numbers of patients', and positive attitudes among personnel.

4.5.3 Wastage of resources at St Francis community Hospital

Waste management is a very important component of the contextual factors**.** It was reported that before the introduction of QI measures, wastage of resources was not easily identifiable.

> *"The patients - staff ratio was so high that at one point instead of one nurse caring for at least six patients per shift, they only took care of two to three patients. The doctors and clinical officers were not evaluated, no human resource audit on performance leading to honest staff being over worked while others were not fully engaged. At one point we noted more than 20 staff were being paid for private health insurance yet they never existed in the hospital thus wasting the already minimal financial resources available in the hospital".*
>
> **HMT member at an FGD**

> *"We have been able to save money due to the controlled system using the HMIS (hospital management information system), even though, we still loose cash in some departments where people are lured by undisciplined staff to pay for services directly to them. Our resources are wasted especially as a result of misplacing commodities and supplies, not accounting for the issued medical supplies and above all for not keeping a record of departmental inventory".*
>
> **HMT member during an FGD.**

4.5.4 Contextual factors on Patient safety

It emerged that there had been concerns over how safe patients were at the Hospital prior to the introduction of the QI initiatives. Several medical errors that had occurred leading to adverse events and incidents. During the FGD with the QIT, one respondent recalled how a patient was transfused the wrong blood.

> *"I will never forget that fateful day when two mothers were taken to theatre for Caesarean operations. Both delivered male infants, but there only one baby warmer.*

None of us remembered to label the new born babies and guess what? When both mothers were ready to receive their babies, we could not tell which baby belonged to which mother! The panic will remain written in our minds forever. The doctor recommended a DNA test for which the hospital did not have such facilities. This meant taking blood samples to a lab outside the hospital… that was my longest working day. With all those stressful moments, the management did not blame us for the mistake but supported whole process, including paying for the lab test. This and such incidences related to patient safety made us understand the importance of QI initiatives".

QIT member during an FGD.

4.5.5 Risk Facing Health Care Facilities

The study revealed that most health care facilities in Kenya were challenged by inadequate governance policies to support provision of drugs and facilities for diagnosis, escalating levels of corruptions which led to exaggerated procurement costs, poor remuneration characterized, increased number of people suffering from life style diseases and inadequate funding.

According to a senior clinical staff at the facility, health care risks were influenced by purchases of low quality machines, conflict of interest between political elite and health care providers, misappropriation of health care resources, demoralized workforce and understaffing of health facilities. On the other hand, clinical staff members attributed health care risk to insufficient drugs, insufficient health care providers, inadequate facilities to carry out diagnosis and understaffing of health care facilities.

A non-clinical staff said that risk facing health care included overworking and poor working conditions, convenience of health care locations, unequal distribution professionals, patient waiting time and communication and language barriers. In addition, quality assurance manager attributed health risk to be caused by high patient to health care ratio, high risk to patient infection in a health facility and inability of patients to access health care facilities. Finally, quality management team reported health care risk to be associated with lack of proper policies, literacy and ignorance among patients, lack of infrastructure, poor

management of health facilities, lack of essential equipment, shortage of drugs and lack of affordable, accessible and quality healthcare services.

4.5.6 Influence of external events on patient safety handling

The study learnt that among the factors that influenced the inception of QI initiatives at the hospital were negative practices adverse on patients' health in other facilities. On examining the effects of patient risks in other facilities STFCH management was prompted to do a thorough review and changes of the standard operating procedures at the hospital to enhance patient safety. Results of the study revealed that most of the changes had been adopted; for example during HMT focus group discussion, information technology representative reported that since an incident at Kenyatta National Hospital (KNH) where the wrong patient was done a brain surgery due to identification error, they had configured patient identification procedures and presently, all patients must have a clearly marked identification tags.

The study noted that the facility had adopted standard operating procedures which all employees were familiar with. Adherence to these SOPs had enhanced quality of service delivery and minimized complaints hailing from our clients.

> *"Since the adoption of SOPs, our turnaround time has decreased and waiting time is declining. These measures were taken owing to incidences circulating in the social media concerning our facility and some health care providers"*
>
> **QIT member during an FGD.**

However, despite these efforts there were still some patients who would express their dissatisfaction through social media, opening the Hospital to public ridicule. This had hampered the moral and ethical operational guidelines of the employees prompting a need for sensitization of the general public on the hospital's standard operational procedure. Table 4.5 summarizes the various reasons offered for the introduction and implementation of QI strategies at the St. Francis Community Hospital.

Table 4.5 Policy Context leading to the introduction of CQI strategies at STFCH

Actor	Reasons for the Introduction of Implementation of QI Strategies
Higher Management Team	To acquire framework for effective service delivery. To enhance bottom up and top down communication. To sustain quality improvement, patient safety, prevent medical errors and organization performance. To promote customer satisfaction and retention. To promote employee job satisfaction and improvement in quality of work life. To increase customer satisfaction and retention therefore widen our client base
Medical Superintendent	To enhance continuous evaluation and improvement. To ensure acceptable levels of standards which promote patient safety. To improve facility reputation amongst its peers.
Clinical Staff	Measure to attract and retain customers To improve patient confidence while seeking medical services. To improve on service time. To be at par with private medical health care providers within the country. To improve quality of laboratory testing. To enhance capacity building and development through participation in different seminars and workshops
Non Clinical Staff	Negative feedback from staff and employees within the facility. Massive competition from neighbouring health care providers. To promote cohesiveness and team work during service delivery. Codification of policies and procedures in the facility. To promote sustainable health care improvements. To ensure that there is timely and regular maintenance and repair of health facilities.
Quality Assurance Manager	Adoption of participatory community development in management and leadership. To improve on turnaround time. To promote quality and safe health outcomes in our different procedures. To promote spill over effects on quality service delivery within the facility
Quality Improvement Team	To develop, promote, nurture safety health and culture. To develop procedures and policies which are working well within the facility. To create cohesiveness and team work within the facility. To promote effective and efficient utilization of organization resources.

	To promote adoption of ethical medical practices within the facility.

4.6 The process of introducing quality improvement initiatives (Policy process).

The fourth objective of the study sought to explore the process of developing and introducing quality improvement initiatives. Under this objective, the study evaluated the structures that St. Francis Community Hospital had developed in order to support the process of introducing CQI initiatives. In order to understand the hospital journey in the introduction of the QI initiatives, the study explored its structures in relations to the consequent success/achievements and challenges that the facility faced in its early stages of introducing the CQI initiatives. The discussions for identified challenges are based on the contents of the table 4.6 as illustrated below.

4.6.1 Success of introducing QI initiatives

The process of introducing quality improvement initiatives at the hospital started in the year 2014 when the 2015-2019 strategic plan was being developed. According to Respondent Number C in a FGD with the HMT, the initial idea was to have the hospital get ISO certified by the year 2019. Although the desire was expressed in writing minimal efforts were made with little tangible results until October 2017 when a new management team came on board and made the process more vibrant by establishing a Quality Improvement Department.

To ease identification of quality improvement areas in the facility, staff members were sensitized through workshops and seminars. In this phase members were grouped and weekly seminars were carried. Specific individuals were identified to spear head the initiative and they were trained on how to audit quality needs within a facility. During these seminars and workshops clinical staff members were inducted on how to identify minimum health care areas which triggers quality improvement initiatives. They included untimely death during hospital care, complications during in and out patient treatments, how to identify and avoid medical errors, measures to avoid medical care negligence to patients and negative reportable community incidences.

During these sessions the hospital employees were inducted on how to incorporate quality monitoring strategies in the facility. Information need and access protocols were clearly discussed. In this phase, clinical and non-clinical staff members were inducted on conflict

resolution mechanisms in cases where patients would raise complaints regarding service provided. Although problems may be dissimilar in situations for similar cases employees were taught how to manage situations depending on whether programmed or non-programmed approach was adopted in conflict management.

To ease CQI improvement in the facility, the following were identified as initial activities to be undertaken: identification of patient's complaints, employees complaints and grievance trends, patients exit interviews through use of suggestion box, social media and current SMS, cost and benefits analysis on QI, regular internal audits and passing of ISO certification stages.

> *"The Hospital's key priorities towards achievement of QI include establishment of research department to analyse annual patient's demographic and epidemiological characteristics, regular medical conditions with highest prevalence in the facility, data management to identify shortage of medical care needs as per demand within the vicinity and necessary measures to be undertaken to attain superior performance on quality service delivery".*
>
> **HMT member during FGD.**

> *"Although, there are various models which can be used to introduce CQI activities, St. Francis Community hospital plans to adopt the Plan, Do, Study and Act (PDSA) and the 5s Kaizen models in the near future".*
>
> **HMT member during FGD**

From the discussions above, the study revealed that STFCH introduced QI initiatives in order to attain ISO certified so as to raise its status and confidence among their peers and increase confidence of its clients as a result. At no point were the employees trained on Quality improvement as a whole despite the mission statement highlighting on their believe in the provision of quality healthcare. It evident that upon creation of the QI department, a culture of CTI is being cultivated in a very passionate manner. All the QI initiatives reported were anchored on desire to achieve ISO certification and also for some employees it meant fulfilling what is stipulated in their job descriptions. The hospital was taking a noble direction of planning to adopt the PADSA and the 5s Kaizen as their CQI model once it achieves ISO

certification. This is a noble move on sustaining CQI, even though, training on what QI entails was a noted need for a successful and efficient implementation of all QI initiatives.

4.6.2 Challenges Facing Introduction of Quality Improvement

Under the fourth study objective, the study also investigated the challenges which could jeopardize the implementation of QI in St. Francis Community Hospital. HMT acknowledged that lack of a skilled competent QA manager to drive the QI initiatives in the hospital stunted all the desired QI initiatives for more than three years. The process was also hurdled by conflict of interest between employees and HMT, employees' perception of QI as an ambiguous plan, instability of team members, lack of employee commitment to the process and resistance to change by the staff whereby employees are not ready to move out of their routine practices of poor documentation and minimal concern on customer care, health outcomes, litigations, patient safety, negative media publicity among other risks. It was also noted that other misinterpretation of organization support and costly incentives for employee's motivation was a noted challenge. During a focus group discussion with the HMT, a respondent stated that,

> *"….in some cases when we are expected to have QMT meeting or auditing, some members fails to inform their unit managers. This is a recipe for conflict since QMT may perceive lack of support from management while HMT may perceive the behaviour conduct as an attempt to create crisis so as to have his friend on locum basis. Before we realized we had been caught off guard and incurred huge expenses*"
>
> **(HMT FGD, Respondent Number B).**

Secondly, one of the senior clinical staff argued that achievement of QI results is challenged by ignorance of external stakeholders more so when they are complain about medical negligence in social media without gathering enough information.

> *"Since quality improvement is an exercise which calls for huge documentation it's expensive to acquire and manage knowledge and it is hard to quantify quality improvement in price terms and decision on who to bear the burden between patient and facility is hard to decide".*

HMT FGD respondent Number

A)

Thirdly, clinical staff members respondent number L, argued that QI were challenged by failure to carry out due diligence prior to attacking facility in social media, communication breakdown between QMT and management and poor state of knowledge management and documentation. On the other hand, non-clinical staff members perceived resistance to change, budgetary constraints and dynamic changes in HMT as threat to achievement of CQI.

Lastly, according to a senior member of the QIT, CQI is challenged by inability to convince employees that there were problems, low initial adoption of quality improvement activities, poor data management at initial stages, and unwillingness of some members to accept change. This was corroborated by QMT who reported low commitment and engagement claiming that CQI is not in their job descriptions, organization job design and task characteristics and lack of clear QI sustainability strategies. The following table illustrates the various challenges that faced the introduction of Quality Improvement initiatives at St. Francis Community Hospital.

Table 4.6 Challenges Facing Introduction of Quality Improvement in STFCH

Actor	Challenges Facing Introduction of QI in St. Francis Community Hospital
Higher Management Team	Conflict of interest between employees and HMT Perception of QI as ambiguous plan Instability of team members Misinterpretation of organization support Costly incentives for employees' motivation
Medical Superintendent	Ignore of external stakeholders Cost of knowledge management and documentation Inability to quantify quality improvement price
Clinical Staff	Failure to use due diligence prior to attacking facility in social media Communication breakdown between QMT and management Poor documentation and knowledge management
Non Clinical Staff	Resistance to change Budgetary constraints Dynamic HMT changes
Quality Assurance Manager	Inability to convince employees there are problems Low initial adoption of quality improvement initiatives Poor data management Unwillingness of members to accept change
Quality Improvement Team	Low QMT engagement since QI is not in their job descriptions Organization job design and task characteristics Lack of clear QI sustainability strategies

CHAPTER FIVE:

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter examines results from chapter four in light of broader literature. Study findings are linked to the previous studies in similar areas. The chapter ends with a conclusion on the key aspects, and recommendations for policy and future research.

5.2 Discussion of Findings

Overall, the study sought to examine the experience around the establishment of continuous quality improvement initiatives at St Francis Community hospital through eliciting views, opinions and perceptions of different actors.

The study was based on existing published literature, key informant in-depth interviews and focused group discussions. The key informants reflected most of the relevant actors as this was an exploratory study into policy process and the experiences arising from it.

For QI within the hospital, there was a clear understanding by actors of their roles in initiating and promoting QI within the facility. This could be attributed to hospital management engaging all staff in the initiation and development of QI activities through open forums such workshops, seminars, training. In turn, this positively influenced the perception and attitudes of the staff towards implementation QI initiatives. Similarly, O'Donohue et al (2016) suggests that the institution of well-facilitated discussion forums by organization leadership counteracts the resistance of staff to change as a result of implementing new initiatives. However, the views, opinions and understanding of the meaning of QI differed. The understanding of QI concepts fell short of the correct definition. Although developed countries have largely invested in quality improvement in health facilities, QI is now gaining traction across majority of the hospitals in low and middle-income countries, including Kenya (Akachi, Tarp, and Kruk 2016). As such, these concepts are now being explored and will soon be fully understood in all settings worldwide.

The CQI policy content appears to have been an initiative from the HMT, which was introduced as part of the strategic plan to improve the quality of health services. This was a consequence of numerous challenges such as inefficient documentation, drug insecurity, drug errors, poor cleanliness practices, inadequate patient safety measures, wastage of resource, and increased workload on paper documentation. More specifically, poor record management had a negative effect on quality of provision of healthcare. This initiative was supported by other staff who viewed it as a way of attracting and retaining clients, improving patients' confidence in the facility, improving service time, and enhancing capacity building and development through different seminars and workshops and to improve healthcare services. Additional contributors to this policy included: negative feedback from patients, competitive neighbouring health facilities, the need to promote cohesiveness and team work and ensure timely and regular maintenance of health facilities, the adoption of participatory community development in management and leadership by the hospital, the importance effective and the adoption of ethical medical practices within the facility. Majority of these challenges are related to accreditation and certification processes of facilities, most of which minimally embraced in low and lower middle income settings (Akachi, Tarp, and Kruk 2016).

The policy context sought to determine factors that led to the hospitals decision to introduce QI initiatives.. These were identified as the structures in support of QI, resources available, hospital's culture on QI initiatives, reduction of wastage of resources and promotion patients' safety as outcomes of QI initiatives at St. Francis Hospital. It was noted that a culture of quality improvement was not deeply cultivated among the employees. Therefore, before the inception of the QI initiatives staff members at the hospital did not portray an adherence to a culture of continuous quality improvement. In addition, the lack of staff training of QI during its initiation may have impeded on the perceptions and attitude of staff and the overall organizational culture towards QI. Staff training on QI and CQI has been identified as a contributor to successful implementation of CQI (Blake et. al, 2016). Also, organizational culture and trust, are key aspects of the organizational context that can greatly influence policies. The differences in how people's values, decisions and relationships influence organizations, and the nature of policies, culture, trust and power dynamics can combine to create enabling or disabling micro-level implementation environments (Erasmus et al 2017).

Communication of the QI initiatives was done through staff assemblies, interactive workshops, and seminars. As a result, there was evident awareness of these initiatives across all staff cadres. Other ways of creating awareness amongst staff included maintenance of medical statistics, regular auditing of information system, launching of an ISO team, adoption of an SMS platform for client feedback, improved knowledge management strategy at the facility, development and introduction of Standard Operating Procedures (SOPs) for all departments, introduction of quality assessment metrics in all departments and units, labelling of all hospital facilities, use of innovative methods to minimize patient's conflicts and improved public engagement methods. Blake et. al (2016) emphasizes on efficient communication and engagement of staff as a facilitator of implementing CQI in health settings. Moreover, a study in Nepal on implementing free healthcare, found that involving employees (addressing the 'people factor') increased chances of the policy being successful (Sato et al, 2015). Poor involvement of staff may breed resistance and cause a policy to fail. Also, in a study Kenya, Kaler et al (2001) found that front-line staff may disobey key policy matters if they do not believe in the objectives, which is more likely to happen where they are excluded from key policy decisions (Kaler et al, 2001).

On the contrary, the implementation of CQI initiatives experienced some challenges. First was lack of skilled and appropriate personnel to drive the QI initiatives in the hospital. Additionally, there was conflict of interest between employees and HMT, the employees' perception of QI as an ambiguous plan, instability of team members, lack of employee motivation and commitment to the process, and resistance to change by the staff. Second was the lack of support from management from the negative social media feedback from clients, communication breakdown between QMT and management and poor state of knowledge management and documentation. These factors demonstrated the lack of trust between the staff and management in the implementation CQI initiatives. Similarly, Topp et al (2016) suggests that the lack of resourcing and poor leadership are key factors leading to health providers' weak workplace trust, and often contributes to poor quality of services. This highlights the importance of investing in organizational management and structural factors and organizational management so as to strengthen workplace trust between employees and the organization (Topp et al, 2016). In a systematic review, Okello et al (2015) further states that workplace trust relationships between employees, organization and patients, directly and indirectly influence health worker motivation. Motivational factors linked to trust could be

identified as management support; staff shortages and resource inadequacy; communication, feedback and openness respect; supervision; teamwork; autonomy; and, recognition, appreciation and rewards (Okello et al, 2015). Furthermore, the lack of commitment by staff to implement the initiatives was an act of discretionary power by the front-line worker. This is known to be an important determinant of the success of implementation processes (Gilson et al, 2014).

The study has some strengths. The policy triangle framework provides a comprehensive understanding of the CQI policy process at SFCH. There was a high response rate amongst participants as most key actors involved in this policy participated in the study. To our knowledge, this is the first quality improvement policy analysis case study conducted in low and lower income settings. However, we acknowledge the limitations of these methods. Largely, the exploratory nature of the study aims to raise questions for further research rather than definitively answer them.

5.3 Conclusion

Based on the study findings the following conclusion can be drawn from the study, most of the employees in St. Francis community hospital do not understand the meaning of quality improvement and their specific roles in CQI. The staff confused their job descriptions with the roles in CQI. Despite that, most of them are actively involved in implementation of quality improvement though in a haphazard manner unstructured manner because of a knowledge gap. Also, the staffs were noted to be very supportive of efforts initiated in favour of QI because of the benefits it brings to the facility as a whole. From the findings there is massive HMT supportive, clinical and non-clinical employees, quality manager and QMT were actively involved and participated in implementation of quality improvement with their greatest driver being to acquire ISO certification.

Secondly, there were several measures being deployed by St. Francis Community Hospital to ensure successful implementation of quality improvement even though not well established. From the findings it can be deduced that HMT have embraced participatory leadership, this is achieved through employees sensitization in different forums. Continuous training and auditing for ISO certification have characterized QI in St. Francis Community Hospital, this

should be maintained and enough resources and proper planning be deployed to ensure thorough and timely auditing is carried out even when ISO certification is acquired.

Thirdly, QI measures undertaken by St. Francis Community hospital are geared towards mitigating risks facing health care provision in Kenya. HMT have devised to ensure optimal allocation resources, medical superintendent and clinical officers have adopted operational procedures for minimizing patient's risks exposure. Quality assurance manager and QMT have embraced measures to ensure conformity with international standard operational procedures is achieved. However, there is lack of systems to track quality healthcare provision, and limited systematic outcome assessment and measurements.

Finally, it can be concluded that CQI sustainability in St. Francis community is achievable since adherence to ethical operational procedures have been adopted. Revenue stream will increase since patient response and waiting have declined; this will enhance patient safety, increase customer satisfaction, retention and increase their market share.

5.4 Recommendations

Based on the study findings it was very clear that even though St Francis Community is passionate about introducing and embracing QI strategies, most of the respondents did not understand their specific roles in CQI but instead described their job descriptions even with a rigorous probing. Thus a need for vigorous capacity building on the specific roles of actors/staff in regards to QI initiatives.

Secondly, the study revealed that there was no evidence of any adopted QI model being implemented to support QI initiatives in the facility. Failure to adopt a QI model may lead to laxity in a vibrant commitment to CQI once the ISO certification is acquired. It is therefore highly recommended that there is need continuously train staff members more on quality improvement models so as to demonstrate measurable results of the QI initiatives. This will enhance adoption, ownership and successful implementation of quality improvement model in St. Francis Community Hospital. Moreover, this will enhance localization of existing quality improvement model. HMT should have key representative in all phases of CQI, this will ensure their roles are fully addressed and they can easily to issues emanating from quality assurance measures in place. QMT should have regular plan of activities and

elaborate implementation matrix. This will eliminate of conflict of interest between management and QMT members deployed in different departments. Budgetary allocation should be regularly evaluated to ensure all needs relating to quality improvement are met on time and optimally.

Thirdly, there is need to continuously hold sensitization forums on quality improvement using different forums appropriate to the actors. This will enhance ownership of quality improvement measures adopted by St. Francis Community Hospital. Members input should not only be considered but also they ought to be involved in implementation of CQI activities. This will enhance ownership and minimize chances of resistance to change.

Moreover, there is need for St. Francis Community Hospital to develop robust measures in regard to occupational health and safety and improve on patient risks and safety. Improvement on occupational safety will enhance employees' motivation and improve quality of work life. Assurance on patient safety will enhance service delivery and improve their satisfaction, retention and trust on facilities. This will ultimately increase market share. To achieve this there is need for support from all actors in the facility. Response time to positive and negative publicity in social media should be increased. This will enhance quality service delivery. Alternative client feedback should be deployed.

Fourthly it was evident that the desire for accreditation through ISO certification was a great motivation behind introducing and embracing QI initiatives and therefore, upon achievement of ISO certification, the hospital should work hard towards a second accreditation that they deem appropriate so that CQI is sustained at all times.

Since CQI is dependent on both internal and external forces. Internal efforts should be continuously evaluated and their capacity to be deployed. There is need for creation of real data architecture for employees' evaluation on daily, weekly, monthly and annually. Sustainability of CQI in the facility will not be void of challenges thus there is need for conflict resolution mechanism to be deployed while at the same time cultivating a culture of CQI for sustainability and for employees to fully embrace the different QI initiatives.

Finally, since the hospital is envisioned to become a teaching hospital, there is need to establish a robust research centre that will inform scientific decision making on quality

Improvement. The hospital should form or join existing national and international body of networks that propagates for CQI in healthcare service industry in order to remain constantly rejuvenated and top notch culture of Quality improvement. The hospital should remain inspired by successful world class companies that have been very successful globally for embracing and adhering to models of CQI for example the manufacturing industries in Japan that implements the 5s Kaizen, lean six sigma and the Deming PDCA cycle should be source of inspiration to embrace such models that have been proved to add great value to sustainable quality service delivery in healthcare.

5.5 Suggestions for Further Studies

Although the current study was on the introducing quality improvement initiatives in St. Francis Community hospital all respondents in the study were insiders. There were possibilities of concealing some information due to fear victimization and intimidation there is need for subsequent study to be carried out and assure respondents confidentiality and if possible audio recording to exclude during data collection. Drawing respondents from service providers gives one sided opinion and hence the findings may not attributed to be true representative of patients who are beneficiary of any QI initiative. There is need for a study and draw respondents from patients. Use of qualitative research may have complicated the study especially the length of time to interview a single respondent; there is need for a follow up study which should adopt quantitative research design. Longitudinal research design should be adopted to evaluate success of quality initiatives strategies undertaken in St. Francis Community Hospital. Use of structural equation modelling should be adopted to investigate the impact of CQI on performance of St. Francis Community Hospital.

6.0 REFERENCES

Aiken, A. M., Wanyoro, A. K., Mwangi, J., Juma, F., Mugoya, I. K., & Scott, J. G. (2013). Changing Use of Surgical Antibiotic Prophylaxis in Thika Hospital, Kenya: A Quality Improvement Intervention with an Interrupted Time Series Design. Plos ONE, 8(11), 1-6. doi:10.1371/journal.pone.0078942

Akachi. Y., Tarp, F., & Kruk, E.M (2016) *Measuring quality of care in the context of SDG 3*. Bulletin of the World Health Organization.DOI 10.2471/BLT.16.170605

Awortwi, N. (2016). *Implementation of the Millennium Development Goals: Progresses and Challenges in Some African Countries.* Nazareth, Ethiopia: OSSREA.

Ayalew, F., Eyassu, G., Seyoum, N., van Roosmalen, J., Bazant, E., Kim, Y. M, &... Stekelenburg, J. (2017). Using a quality improvement model to enhance providers' performance in maternal and newborn health care: a post-only intervention and comparison design. BMC Pregnancy and Childbirth, (1), doi: 10.1186/s12884-017-1303y

Backström, T., Fundin, A., & Johansson, P. E. (2017). *Innovative Quality Improvements in Operations: Introducing Emergent Quality Management*. Cham, Switzerland: Springer.

Baillie, L., & Maxwell, E. (2017). *Improving Healthcare: A Handbook for Practitioners.* [N.p.]: CRC Press.

Balakas, K., & Smith, J. R. (2016). Evidence-based practice and quality improvement in nursing Education. *Journal of Perinatal & Neonatal Nursing*, (3), 191.

Barnard, C., & Hannon, B. J. (2010). Quality Improvement for Nurse Managers: Engage Staff and Improve Patient Outcomes. Danvers, MA: HCPro, a division of BLR.

Barnhart, S. (2017). Identifying priorities for data quality improvement within Haiti′s iSanté EMR system: Comparing two methods. Health Policy And Technology, 693-104. doi:10.1016/j.hlpt.2016.11.006

Barsalou, M. A. (2015). The Quality Improvement Field Guide: Achieving and Maintaining Value in Your Organization. Portland: Productivity Press.

Bergman, B., Hellström, A., Lifvergren, S., & Gustavsson, S. M. (2015). An Emerging Science of Improvement in Health Care. Quality Engineering, 27(1), 17-34. doi:10.1080/08982112.2015.968042

Blake,S,C,. Kohler,S,. Rask,K,. Davis, A,. Naylor,D,V,. (2016) American Journal of Medical Quality; Facilitators and Barriers to 10 National Quality Forum Safe Practices. Retrieved from http://journals.sagepub.com/home/ajm.Pennsylvania State University

Biber, H S.N & Leavy, P. (2011). The Practice of Qualitative Research. Retrived from https://books.google.lk/books

Buckley, G. J., Pittluck, R. E., & Institute of Medicine, (. (U.S.). (2015). Improving Quality of Care in Low- and Middle-Income Countries: Workshop Summary. Washington, DC: National Academies Press.

Burns, n & Grove, S.K, (2003: The practice of nursing research: Conduct, critique and utilization. Toronto: WB Saunders.

Buse, K,. Mays, N,. & Walt, G,. (2012) Understanding Public Health. Ni Making Health Policy, Second Edition. UK: McGraw-Hill Education.

Chao, S. (2007). Advancing Quality Improvement Research: Challenges and Opportunities – Workshop Summary. Washington, D.C.: National Academies Press.

Chao, S., & Institute of Medicine, (. (U.S.). (2008). Creating a Business Case for Quality Improvement Research: Expert Views, Workshop Summary. Washington, D.C.: National Academies Press.

Charmaz,K.(2008). Constructionism and the Grounded Theory in J.A.Holstein & J.F. Gubrium (Eds.), Handbook of constructionist Research (PP 397-412). Newyork: The Guilford Press.

Cresweell, J.W (2014). Research design: Qualitative, quantitative, and mixed methods Approaches (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc. (ISBN: 978-1-4522-2610-1)

Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Thousand Oaks, CA: Sage.

Crogan, N. L., & Dupler, A. E. (2014). Quality improvement in nursing homes: testing of an Alarm elimination program. Journal of Nursing Care Quality, (1). 60.

Crotty, M. (1998). The Foundations of Social Research. Meaning and Perspectives in Research Process. London: Sage Publications.

D. (2013). Original Study: The Influence of Teams to Sustain Quality Improvement in Nursing Homes that "Need Improvement". Journal Of The American Medical Directors Association, 1448-52. doi:10.1016/j.jamda.2012.09.008

Daily Nation (Friday March 2nd 2018) Brain Surgery on the wrong KNH Patient.

Dale H., B. (2013). Quality Improvement: Pearson New International Edition. Harlow, United Kingdom: Pearson.

Denzin, N., & Lincoln, Y. S. (Eds.). (2005). Introduction: The Discipline and Practice of Qualitative Research. In The Sage Handbook of Qualitative Research (3rd ed., pp. 1-32). Thousand Oaks, CA: Sage Publications.

Does, R. M., de Mast, J., & Schoonhoven, M. (2015). Discussion of "An Emerging Science of Improvement in Health Care". Quality Engineering, 27(1), 35-40. doi:10.1080/08982112.2015.968044

Dyck, M. J., Schwindenhammer, T., & Butcher, H. K. (2014). Evidence-based practice Guideline: quality improvement in nursing homes. Journal of Gerontological Nursing, (7). 21.

Fawcett, J. (2017). Applying Conceptual Models of Nursing: Quality Improvement, Research, and Practice. New York, NY: Springer Publishing Company.

Feigenbaum, A, V,. (1991) Total Quality Control. McGraw-Hill Professional; 4 edition.

Finkelman, A. W. (2018). Quality Improvement. Burlington, MA: Jones & Bartlett Learning. http://www.safetyandquality.health.wa.gov.au/docs/aims/cims_toolkit.pdf

Gay, L. R. (1987) Educational Research: Competencies for Analysis and Application. 3rd.edn. London: Merrill Publishing

Glaser, B.G. & Strauss, L.A., (1967) The Discovery of Grounded Theory : Conference: Peer presentation

Giddings, L. S. (2006). Mixed-methods research: Positivism dressed in drag? Journal of Research in Nursing, 11(3), 195–203.

Hansen, B.H., & Kautz, K. (2005). Grounded Theory Applied - Studying Information Systems Development Methodologies in Practice. doi: 10.1109/HICSS.2005.289

Hasan, B,. (2014) Using Qualitative Research in Accounting and Management Studies: Not a New Agenda. Journal of US-China Public Administration, October 2014, Vol. 11, No. 10, 831-838 doi: 10.17265/1548-6591/2014.10.003

Jansma, J.D., Wagner, C., Kate, R.W.T., & Bijnen, A. (2011) Effects on incident reporting after educating residents in patient safety: a controlled study. Journal of Biomed Central. Health services Research.(11) doi: 10.1186/1472-6963-11- 335

Johnson, R.B. , Onweugbuzie, A. J. & Turner, L.A. (2007). Toward a definition of mixed methods research. Journal of Mixed Methods Research, 1, pp. 112-133.

Johnson, J. K. (2013). Mclaughlin and Kaluzny's Continuous Quality Improvement in Health Care. Burlington, MA: Jones & Bartlett Learning.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A paradigm whose time has come. Educational Researcher, 33(7), 239-271. http://dx.doi.org/10.3102/0013189X033007014

Johnson, R. B., Onwuegbuzie, A. J. & Turner, A.L., (2007) Toward a Definition of Mixed Methods Research. Journal of Mixed Methods Research, 1, 112-133

Johnson, M. C., Schellekens, O., Stewart, J., van Ostenberg, P., de Wit, T. R., & Spieker, N. (2016). SafeCare: An Innovative Approach for Improving Quality Through Standards, Benchmarking, and Improvement in Low- and Middle-Income Countries. The Joint Commission Journal on Quality and Patient Safety, 42350, AP1-360, AP11. Doi: 10.1016/S1553-7250(16)42049-0

Joshi, M., Zhang, S., Erb, N., & Sikka, R. (2016). Leading Health Care Transformation: A Primer for Clinical Leaders. Boca Raton, FL: CRC Press.

Kelly, P., Vottero, B. A., & Christie-McAuliffe, C. A. (2014). Introduction to Quality and Safety Education for Nurses: Core Competencies. New York, NY: Springer Publishing Company.

Kothari, C. R. (2010). *Research Methodology: Methods and Techniques* (4th Edition). New Delhi: New Age International.

Kreidler, M. L. (2014). Quality Improvement in Health Care.

Lighter, D. E. (2011). Advanced Performance Improvement in Health Care: Principles And Methods. Sudbury, Mass: Jones & Bartlett Learning.

Lighter, D. E. (2013). Basics of Health Care Performance Improvement. Burlington, MA: Jones & Bartlett Learning.

Ludwiczak, A. (2016). Customer requirements and the quality improvement of health care Services. Management (1429-9321), 20(2), 428-441. Doi: 10.1515/manment-2015-0073

Marczyk, G. , DeMatteo, D. and Festinger, D. (2005). Essentials of Research Design and Methodology. New Jersey. John Wiley and Sons, Inc.

Margonari, H., & Hannan, M. S. (2017). Quality Improvement Initiative on Pain Knowledge, Assessment, And Documentation Skills of Pediatric Nurses. Pediatric Nursing, 43(2), 65-70.

McDermott, A., Kitchener, M., & Exworthy, M. (2018). Managing Improvement in Healthcare: Attaining, Sustaining and Spreading Quality. Cham: Palgrave Macmillan.Sollecito,

McGivern, G., Nzinga, J., & English, M. (2017). 'Pastoral practices' for quality improvement in a Kenyan clinical network. Social Science & Medicine, 195115-122. doi:10.1016/j.socscimed.2017.11.031

Mitra, A. (2016). Fundamentals of Quality Control and Improvement. Hoboken, N.J.: Wiley.

Mollet, J. A. (2011). Ethical Issues in Social Science Research in Developing Countries: Useful or Symbolic. Retrieved from http://www.austneth.net/transmission_proceedings/papers/Molle t.pdf

Mollet, J.A. (2011)Ethical Issues in Social Science Research in Developing Countries: useful or symbolic. In R. Crib (Ed.) Transmission of Academic Values in Asian Studies: Workshop Proceedings. Canberra: Australia Netherlands Research Collaboration (http://www.aust-neth.net/transmission_proceedings/papers/Mollet.pdf

Mugenda M.O. and Mugenda A. (2008), Research Methods: Qualitative and Quantitative Approaches, African Centre for Technology Studies, Nairobi, Kenya

Murray, E. (2016). Quality Improvement. Implementing a Pediatric Fall Prevention Policy and Program. Pediatric Nursing, 42(5), 256-259.

Ndambiri, H., Brouwer, R., & Mungatana, E. (2016). Comparing welfare estimates across stated Preference and uncertainty elicitation formats for air quality improvements in Nairobi, Kenya. Environment & Development Economics, 21(5), 649-668. Doi: 10.1017/S1355770X15000455

McNeill, P. &; Steve Chapman, S. (2005) Research Methods. Retreived from http://www.academia.edu/4367986/Research_Methods_Patrick_McNeill_Steve_Chapman_

O'Donohue, W., & Maragakis, A. (2016). Quality Improvement in Behavioral Health. [Place of Publication not identified]: Springer.

Onguka, S., Korom, R., Halestrap, P., McAlhaney, M., & Adam, M. (2015). Applying classical Learning theories to quality improvement interventions among mid-level providers in Kenya. Annals Of Global Health, (1), doi:10.1016/j.aogh.2015.02.877

Parahoo, K. 1997. Nursing research: Principles, process and issues. London: MacMillan Press

Patel, G,.N,. (2015)Total Quality Management in Healthcare Retrieved from: https://www.researchgate.net/publication/283621788_DOI: 10.13140/RG.2.1.3909.0808 ·Available from: Patel G.N, Nov 10, 2015

Payne, T.R. (2008). "How information power can improve service quality". Planning Review, 19(3),24-6, 1991

Phelan, C., & Wren, J. (2007). Exploring Reliability in Academic Assessment. https://www.uni.edu/chfasoa/reliabilityandvalidity.htm

Phil B,. Robert,. & Jennifer, D,. (2007) The Business of Healthcare; Quality in Healthcare: Concepts and Practice. 611-394-V3-003.indd 6

Polit, OF & Hungler, BP, 1993. Essentials of nursing research: Methods, appraisals and utilisation. 3rd edition. Philadelphia: Lippincott-Raven Publishers.

Puttkammer, N., Pettersen, K., Hyppolite, N., France, G., Valles, J. S., Honoré, J. G., &

Rantz, M. J., Zwygart-Stauffacher, M., Flesner, M., Hicks, L., Mehr, D., Russell, T., & Minner,

Reed, M., & Canning, N. (2012). Implementing Quality Improvement & Change in the Early Years. London: SAGE Publications Ltd.

Ross, T. K. (2014). Health Care Quality Management: Tools and Applications. San Francisco: Jossey-Bass.

Rule, A. R., Maina, E., Cheruiyot, D., Mueri, P., Simmons, J. M., & Kamath-Rayne, B. D. (2017). Using quality improvement to decrease birth asphyxia rates after 'Helping

Babies Breathe' training in Kenya. Acta Paediatrica, (10), 1666. doi:10.1111/apa.13940

Salvilla, S. A., Sheikh, A., Panesar, S. S., & Carson-Stevens, A. (2014). Patient Safety and Healthcare Improvement at a Glance. Chichester, West Sussex, UK: Wiley-Blackwell.

Schnelle, J. F. (2007). Continuous Quality Improvement in Nursing Homes: Public Relations or a Reality?. Journal Of The American Medical Directors Association, 8(Supplement), S2-S5. doi:10.1016/j.jamda.2006.12.021

Siccama, C. J., & Penna, S. (2008) Enhancing validity of a qualitative dissertation research study by using Nvivo. Qualitative Research Journal, 8(2), 91-103.

Scott, C., Clarke, K. N., Grevendonk, J., Dolan, S. B., Ahmed, H. O., Kamau, P., & ... MacNeil, A. (2017). Country Immunization Information System Assessments - Kenya, 2015 and Ghana, 2016. MMWR: Morbidity & Mortality Weekly Report, 66(44), 1226-1229. doi:10.15585/mmwr.mm6644a5

Sollecito, W. A., & Johnson, J. K. (2013). Mclaughlin And Kaluzny's Continuous Quality Improvement In Health Care. Burlington, MA: Jones & Bartlett Learning.

Somatunga,L,C,. Sridharan, S,. Refai, M, A, C,. Malavige, K, K, & Gamini, L, P, S,. (2015).Factors influencing Continous Quality Improvement Program in Government Hospitals of Srilanka. International Journal of Medicine & Technology 4(6),118-123

Stamou, S. C., & Lobdell, K. W. (2013). Quality Improvement: Methods, Principles and Role in Healthcare. New York: Nova Science Publishers, Inc.

Tang Wai, M., & Muhammad Faizal A., G. (2013). Continuous Improvement in Nursing Education through Total Quality Management (TQM). Journal Of Education And Learning, 7,(4),193. doi:10.11591/edulearn.v7i4.192

Tashakkori, A. & Teddlie, C. (2003). Handbook of Mixed Methods in Social & Behavioral Research. Thousand Oaks: Sage

Tawfik, D. S., Sexton, J. B., Adair, K. C., Kaplan, H. C., & Profit, J. (2017). Context in QualityCare. Improving Teamwork and Resilience. Clinics In Perinatology, 44(Quality Improvement), 541-552. doi:10.1016/j.clp.2017.04.004

Yator, L.J. (2012). *The effect of service quality on customer satisfaction in the hospitality Industry in Kenya- A case of Lake Bogoria spa resort*, Unpublished MBA Thesis, University of Nairobi

Zainal, Z.(2007)‖ Case study as a research method‖, Journal of JurnalKemanusiaan, Vol.9,No.January, PP.1-6.

Ziaee, R., & Bologna, J. S. (2015). *Preparing for Continuous Quality Improvement for Healthcare: Sustainability through Functional Tree Structures*. Boca Raton, FL: Productivity Press.

Zoutman, D,E,.& Ford, B,D,. (2017) "Quality improvement in hospitals: barriers and facilitators", International Journal of Health Care Quality Assurance, 30(1),16-24, https://doi.org/10.1108/IJHCQA-12-2015-0144

7.0 APPENDICES

Appendix I Participant's Preparation for the In-depth Iinterviews /FGDs

Introduction

I am a student at Strathmore University Pursuing a Master's Degree in Business Administration- Healthcare Management. I am carrying out a research study by the tittle "Introducing Quality Improvement Structures and Processes at a Medium Sized Facility: A Case Study of the St Francis Community Hospital in Nairobi, Kenya"

I will talk to and interview any one of you who feel comfortable to participate in this research as a respondent, you can take time to reflect on whether you wish to participate or not. If as a participant you do not understand some of the words or concepts, I will take time to explain them as you go along. Questions and seeking any clarification is allowed at any time during the interview or Focused Group Discussion.

Appendix II Informed Consent Form

I, _____

As a participant in this research confirms that (please tick box as appropriate):

1. I have read and understood the information required for this research based on the cover letter and the interview guide provided

2. I have been given the opportunity to ask questions about the project and my participation.

3. I voluntarily agree to participate in the project.

4. I understand I can withdraw at any time without giving reasons and that I will not be penalized for withdrawing nor will I be questioned on why I have withdrawn.

5. The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymization of data, etc.) to me.

6. The use of the data in research, publications, sharing and archiving has been explained to me. I, along with the Researcher, agree to sign and date this informed consent form.

Participant: (Optional) _____ _____ __

Name of Participant Signature/ Initials Date

_____ _____ _____

Name of Researcher Signature Date

Appendix III Topic Guide for the In-depth Interviews for the Respondents

Section A Bio data/ demographic data:

a. Gender

b. Age,

c. Designation/ position,

d. Professional qualifications,

e. Period of service/length of stay at St Francis Hospital,

f. Work experience

Section B

1. What is your understanding of QI?

2. Why is QI important in the provision of healthcare services?

3. What are the specific/ desired expectations of the QI Initiatives in the hospital?

4. What does the process of initiating QI strategies entail?

a. The idea/ concept of QI

b. The process establishment (implementation)

c. Enabling factors (Facilitators)

d. Challenging factors

e. A need for an institutional shift

f. The role of monitoring and evaluation

5. What do you think is the role of the following in the implementation of QI strategies?

a. HMT Memembers

b. HODs

c. Clinical staff (Doctors, Nurses, Lab technologists, Pharmacy technologies?

d. Non – clinical staff (Accounts and front office personnel)

6. What infrastructural structures would you consider essential in the establishment and sustainability of QI strategies?

7. Name key resources (Equipment, finances,) necessary for the implementation of QI initiatives – Explain why you think they are important

8. Mention the current practices used in the Hospital to ensure QI is adhered to.

9. State some practices present in the hospital that in your opinion jeopardize the implementation and sustainability of QI Practices

Section A

Bio data/ demographic data:

a. Gender

b. Age,

c. Designation/ position,

d. Professional qualifications,

e. Period of service/length of stay at St Francis Hospital,

f. Work experience

Section B

1) What is your understanding of QI?

2) Why is QI important in the provision of healthcare services?

3) What are the specific/ desired expectations of the QI Initiatives in the hospital?

4) In your opinion, what are the factors that led to the St Francis Community Hospital deciding to introduce the quality improvement policy initiatives?

5) Please explain to me the process through which the decision was made to formally set up QI structures and processes

6) Please explain the significance of the following attributes in the process of initiating QI strategies entail:

a. The idea/ concept of QI

b. The process establishment (implementation)

c. Enabling factors (Facilitators)

d. Challenging factors

e. A need for an institutional shift

f. The role of monitoring and evaluation

7) What do you think is the role of the following in the implementation of QI strategies?

a. HMT Members

b. HODs

c. Clinical staff (Doctors, Nurses, Lab technologists, Pharmacy technologies?

d. Non – clinical staff (Accounts and front office personnel)

8) What infrastructural structures would you consider essential in the establishment and sustainability of QI strategies?

9) Name key resources (Equipment, finances,) necessary for the implementation of QI initiatives – Explain why you think they are important

10) Mention the current practices used in the Hospital to ensure QI is adhered to.

11) State some practices present in the hospital that in your opinion jeopardize the implementation and sustainability of QI Practices

Appendix IV St Francis Staff Data Base

STAFF DATABASE

No.	DEPARTMENT	CARDER	NO OF MALES	NO. OF FEMALES	TOTAL
1	TRANSPORT	DRIVERS	4		4
2	IMAGING	RADIOGRAPHER	4	1	5
3	FRONT OFFICE	RECEPTIONIST	1	14	15
	FRONT OFFICE	CUSTOMER CARE		1	1
4	KITCHEN	COOK	2	7	9
5	KITCHEN STORES	STORE KEEPER		2	2
6	EYE CLINIC	OPTHAMOLOGIST	1		1
	EYE CLINIC	OPTICAL TECHNICIAN	1		1
7	DENTAL	COHO	1	1	2
8	DENTAL LAB	DENTAL TECHNICIAN	1		1
9	DENTAL	PATIENT ATTENDANT	1		1
10	ADMINISTRATION	CEO		1	1
	ADMINISTRATION	HOSPITAL ADMINISTRATOR	1		1
	ADMINISTRATION	SECRETARY		1	1
	ADMINISTRATION	HR OFFICER	1		1
	ADMINISTRATION	SNO	1		1
	ADMINISTRATION	CHIEF FINANCE OFFICER		1	1
	ADMINISTRATION	DSNO		1	1
	ADMINISTRATION	QAM		1	1
	ADMINISTRATION	IT MANAGER	1		1

11	ICT & HEALTH RECORDS	HEALTH RECORDS OFFICER	1	1	2
		IT ASSISTANT		1	1
12	ACCOUNTS	CASHIER	4	6	10
		ACCOUNTS ASSISTANT	2		2
		DEBT COLLECTOR		1	1
13	LAB	LAB TECHNOLOGIST	5	3	8
		LAB ASSISTANT		1	1
14	LAUNDRY	LAUNDRY ATTENDANT		6	6
		TAILOR		1	1
15	MAINTENANCE	MAINTENANCE TECHNICIANS	2		2
		BIOMEDICAL ENGINEER	2		2
		GARDENER	2		2
		INCINERATOR OPERATOR	1		1
16	MATERNITY WARD	NURSE	2	14	16
		PATIENT ATTENDANT		2	2
17	MEDICAL WARD	NURSE	2	14	16
		PATIENT ATTENDANT		2	2
18	MORGUE	MORGUE ATTENDANT	2		2
19	PAEDS OPD CENTRE	PAEDIATRIC SPECIALIST	1		1
		RCO		1	1
		NUTRITIONIST		1	1

		NURSE		2	2
20	OPD NURSING	COVERING NURSE	1	2	3
		NURSE	2	10	12
		COUNSELLOR		1	1
21	PAEDIATRIC WARD	NURSE		9	9
		PATIENT ATTENDANT		1	1
22	PHARMACY	PHARM TECH	6	5	11
23	PHSIOTHERAPHY	PHYSIOTHERAPIST	3	1	4
24	SURGICAL WARD	NURSE	3	8	11
		PATIENT ATTENDANT		2	2
25	THEATRE	NURSE	3	6	9
		ANAESTHETIST	3		3
		THEATRE CLEANER	1	2	4
		THEATRE ASSISTANT		3	3
26	NBU	NURSE	1	3	4
27	ICU	NURSE		6	6
28	CHAPLAINCY	CHAPLAIN	1		1
		ASSISTANT CPE		1	1
		DEACON	1		1
29	DOCTOR'S	MEDICAL OFFICERS	4	2	6
		GYNAECOLOGIST		1	1
		GENERAL SURGEON(MED SUP)	1		1
30	OPD CLINICAL	CLINICAL OFFICERS	11	3	14
31	CCC	CLINICAL OFFICERS		1	1

	TOTAL		**87**	**154**	**242**

Appendix V Informed Consent Form

ST. FRANCIS COMMUNITY HOSPITAL
C/O LITTLE SISTERS OF ST. FRANCIS OF ASSISI
TEL: 020-2445811, 0713-969608
P.O BOX 62676 - 00200 NAIROBI KENYA

Informed Consent Form for Research participants (Respondents)

Name the group of individuals for whom this consent is written.

(This informed consent form is for the staff of St Francis Community Hospital and the hospital clients whom we are inviting to participate in research study, titled "Introducing Quality Improvement Structures and Processes at a Medium Sized Facility: A Case Study of the St Francis Community Hospital in Nairobi, Kenya".

Name of Principle Investigator: Esther Wairimu Mwangi

Name of the University: Strathmore Business School

Name of Project: Master's Degree; Thesis

This Informed Consent Form has two parts:

- Information Sheet (to share information about the study with you)
- Certificate of Consent (for signatures if you choose to participate)

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction

I am Esther Wairimu Mwangi, student at the Strathmore University Business School. I am doing research on the Introduction of Quality Improvement Structures and Processes at a Medium Sized Facility: It is A Case Study of St Francis Community Hospital in Nairobi, Kenya. This Hospital is on the process of introducing Quality Improvement Structures processes and systems in order to offer quality healthcare services to her clients as well providing conducive work environment for her staff hence making this research study very relevant.

I am going to give you information and invite you to be part of this research as research respondents. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research.

This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me or of another researcher.

Purpose of the research

Quality Improvement activities/ initiatives are very essential in health. QI promotes efficiency of care, patient safety, reduces turnaround time, ensure efficient use of available resources, prevents medical errors, promotes conducive work environment and leads to excellent health outcomes that increases customer satisfaction. In our modern world, every client be it a patient, relatives, staff or any other stake holder, want to be assured of quality healthcare services because they value good health. St Francis Community hospital embraces a low cost high quality model of service delivery in order to meet the needs of her customers. Of late this hospital has embraced various quality improvement strategies and process in an effort to promote the best health outcomes possible. This study intends to explore the facilitators and barriers of establishing the QI structures and processes that St Francis is experiencing so that they can be coming a source of knowledge and skills for learning by other middle level hospitals in Kenya and beyond.

Type of Research Intervention

This research will involve your participation in a focus group discussion or an in-depth interview that will take about a half an hour.

Participant Selection

You are being invited to take part in this research because we feel that your experience as a staff working in this facility and having been involved in the QI processes or even as a beneficiary of the intended QI processes and a responsible Kenyan you can contribute much to our understanding and knowledge of quality improvement initiatives in healthcare provision.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate all the services you receive at this hospital will continue and nothing will change.

OR (For the staff)

The choice that you make will have no bearing on your job or on any work-related evaluations or reports. You may change your mind later and stop participating even if you agreed earlier.

Confidentiality

Any information you provide will be handled with discretion, providing your name is optional. Anonymity of your identity shall be observed at all times. The results however, will be available through the university's thesis repository and business online.

Ethical consideration and concerns.

This proposal has been reviewed and approved by [name of the local IRB], which is a committee whose task it is to make sure that research participants are protected from harm. It has also been reviewed by the Ethics Review Committee representative of St Francis Community Hospital where this research is being carried out.

Part II: Certificate of Consent (This section is mandatory)

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant_____

Signature of Participant _____

Date _____Day/month/year

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness_____ Thumb print of participant

Signature of witness _____

Date _____

Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1. Participation in the study is voluntary

2. Participate in an In-depth interview, Focus group discussion

3. The results of the study shall be shared in the University electronic database

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Print Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____ Day/month/year

Appendix VI Letter of Introduction

Dear Respondents, _____

Thank you for accepting to participate in this research study by responding to the in-depth interview and or the Focus Group Discussion. This research seeks to carry out a case study on Introducing Quality Improvement Structures and Processes at a Medium Sized Facility:

The research is motivated by a gap in knowledge and information in the area of quality improvement initiatives especially among the middle size hospitals in the low income countries like Kenya. The researcher has chosen staff and clients at St Francis Community Hospital in Kasarani- Nairobi, Kenya as the target population by virtue of them being key actors that drive the quality improvement processes and desire quality healthcare services respectively. Any information you provide will be handled with discretion, providing your name is optional. The results however, will be available through the university's thesis repository and business online platforms.

Thank you very much,

The Researcher,

Esther Wairimu Mwangi.

+254710414557