

**STRATEGIES TO IMPROVE EFFECTIVENESS OF HOSPITAL LEADERSHIP IN  
ADDIS ABABA**

By

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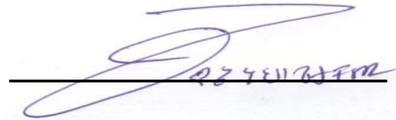
Dedication to my

JESUS CHRIST: my God, Brother and Friend who has sustained me to these days.

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**DECLARATION**

I do hereby declare that this research thesis, entitled “**STRATEGIES TO IMPROVE EFFECTIVENESS OF HOSPITAL LEADERSHIP IN ADDIS ABABA**” is my original work. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made. All sources used or referred to have been documented and cited. I further declare that this research thesis, or any part of it, has not been submitted in the past or will be in the future, for degree or other purposes, to any other educational institution.



YENENEH GETACHEW

JUNE 2020

DATE

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# **STRATEGIES TO IMPROVE EFFECTIVENESS OF HOSPITAL LEADERSHIP IN ADDIS ABABA**

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## **ABSTRACT**

In hospitals of Addis Ababa, there is a high turnover of leaders while patient and health workers' satisfaction is low, and safety and quality are in dire situations. The purpose of this study was to explore and propose strategies to improve effectiveness of hospital leadership in order to enhance the quality of health care provided in hospitals through improving health workers' empowerment, job satisfaction and patient safety culture. Thus, a sequential explanatory mixed method research design was used. The research had three phases, in which the first phase used five structured questionnaires explored leadership styles, the health workers' satisfaction and empowerment, patient safety culture, and the patient experience of quality of health care; while the second involved a qualitative study (content analysis); and third phase focused on the preparation of a strategy document.

Data in the form of interview responses was gathered from 75 leaders, 542 health workers, 532 patients and 11 key informants. The analysis shows that, overall, hospital leaders considered themselves more transformational ( $M=2.98$ ,  $SD=0.41$ ) than transactional ( $M=2.85$ ,  $SD=0.46$ ). Job satisfaction of private and public hospital health workers were 70.8 % and 57.1 % respectively ( $P\text{-value}<0.001$ ). In addition, private hospital workers had a higher score in structural and psychological empowerment than their public hospital counterparts; the difference was statistically significant in all dimensions ( $P\text{-value} \leq 0.03$ ). The analysis reveals that public and private hospitals' mean total patient safety scores were 3.58 and 3.77 respectively ( $P\text{-value}=0.02$ ). Finally, the "overall rating of hospital" was better for private hospitals: 84.8% and 88.4 % respectively ( $P\text{-value}=0.03$ ).

The study makes a number of observations. It notes that, firstly, transformational leadership has direct and strong correlation with structural and psychological empowerment ( $r=0.70$ ,  $P\text{-value}=0.04$  and  $r=0.83$ ,  $P\text{-value}=0.01$  respectively). Secondly,

structural empowerment has a direct and significant effect on psychological empowerment ( $\beta=0.28$ ,  $P\text{-value}=\leq 0.01$ ); and minimal indirect effect on patient safety culture through psychological empowerment ( $\beta=0.05$ ,  $P\text{-value}=\leq 0.05$ ). Thirdly, health worker job satisfaction also has had a direct effect on patient safety culture ( $\beta=0.44$ ,  $P\text{-value}=\leq 0.01$ ). The fourth and final observation is that psychological empowerment has had a direct and statistically significant effect on patient safety culture ( $\beta=0.19$ ,  $P\text{-value}=\leq 0.01$ ). These observations indicate that, although private hospitals are better in every dimension of this study, the current hospitals situation in Addis Ababa needs urgent attention. Hence, the identification and recommendation for the preparation of eight strategic priority areas along with key interventions seeking to improve the hospital leaders' effectiveness.

**Key words:** job satisfaction; patient safety culture; psychological empowerment; Structural empowerment; Transactional leadership; Transformational leadership.

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## **LIST of ABBREVIATIONS**

- AHRQ: Agency for Health Care Research and Quality
- ANOVA: Analysis of variance
- CAS: Complex adaptive system
- CBHI: Community-based health insurance
- CLT: Complex leadership theory
- CWEQ: Conditions of work effectiveness questionnaire
- DCI: Data collection instrument
- EE: Extra effort
- EFMHACA: Ethiopia food medicine health care administration and control authority
- EFT: Effort
- EHSQ: Ethiopia health sector quality strategy
- GTP: Growth and transformation plan
- HCAHPS: Hospital consumer assessment health care providers and systems
- HSOPSC: Hospital survey on patient safety culture
- HSTP: Health sector transformation plan
- IA: Idealized Influence-Attribute
- IB: Idealized influence-behaviour
- IC: Individual consideration
- ICC1and2: Infraclass correlation coefficient one and two
- IM: Inspirational motivation
- IS: Intellectual stimulation
- JSF: Joint consultative forum
- LMX: Leader member exchange theory
- LBS: Liver births

MDG: Millennium development goal

MLQ5x: Multi factor leadership questionnaire short form

MSB: Between-group mean square

NGO: Non-governmental organisation

rWg: Within-group inter-rater agreement

SaLT: Saving Life through Safe surgery

SATT: Satisfaction

SDG: Sustainable development goal

SHI: Social health insurance

UNISA: University of South Africa

WABA: Within and between analysis

WHO: World Health Organisation

WSW: Within-group mean square

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# **CHAPTER 1**

## **ORIENTATION TO THE STUDY**

### **1.1 INTRODUCTION**

Ethiopia has invested enormous resources in the last two decades to expand health care. Hospitals are resource intensive owing to the high cost of highly skilled professionals, advanced medical equipment and medical supplies. In 2016, the country increased the number of hospitals to 241 (Ministry of Health, 2016a: 63) and yet, the public still complains about the state of hospitals. The researcher has the view that effective hospital leadership matters in efforts seeking to improve the overall performance of hospitals in Ethiopia.

The study has three phases. The first phase considers the leadership style that is effective in improving the quality of health care rendered in hospitals. The researcher especially tests the effect of transformational leadership on the quality of health care in the mediation of health workers' job satisfaction, empowerment, and patient safety culture. Therefore, the researcher infers which type of leadership style (transformational, transactional and laissez-fair) is effective in improving quality of health care.

The second phase is concerned with the researcher's further examination of the findings made in phase one study with qualitative methods. He will augment phase one study findings using key informant interview with hospital leaders, managers and experts in hospital leadership field.

Finally, the third phase focuses on the researcher's formulation of effective strategies that will improve the efficiency of hospital leadership.

### **1.2. BACK GROUND INFORMATION ABOUT THE RESEARCH PROBLEM**

#### **1.2.1 The country overview**

Ethiopia, one of the oldest countries that boasts possession of an ancient civilization, is located on the horn of Africa. The 1995 constitution of Ethiopia declared that the country has a federally administrated government with nine regions and two city councils (Ministry of Health 2015a:18). The country is also the seat of the Africa union and second populous country in Africa with the population of 99.4 million and annual population growth of 2.5 %. Ethiopia has achieved significant economic development from the year 2004, with the

country achieving 10.8% economic growth, which is twice higher than the regional average. Nevertheless, Ethiopia is still one of the poorest country in the world: more than a quarter of population gets less than 1.25 USD/day while the per Capita income was 632 USD in 2014, which is one of the lowest in the world (National Planning Commission and the United Nations in Ethiopia 2015:15; The World Bank 2016).

It should be noted that Ethiopia has, in the last two decades, achieved significantly in most of the millennium development goals. Poverty decreased from the 1996 level of 45.5% to 25.1% in 2014; primary education coverage reached 100% before 2015; the gender parity index in primary and secondary education improved significantly from the 1999 level of 0.7 to 0.94 and 0.85 respectively in 2014 (Haileamlak 2015:109; National Planning Commission and the United Nations in Ethiopia 2015:19; Ministry of Education 2015:26).

Health and health-related indicators have also significantly improved in the last two decades. The under-five mortality is significantly improved. The country achieved one of the indicators of the millennium development goal 4: reducing under-five mortality by two thirds, as underscored in the currently figure of 59/1000 live births (LBS). However, other indicators, such as infant mortality and the neonatal mortality rate, have not met the target set in MDG4. The infant mortality and neonatal mortality rate in 2015 was 41/1000 and 28/1000 LBS respectively and yet Ethiopia should have reached 31 deaths/1000LBS of infant mortality ( Unicef, World Health Organisation, World Bank Group and United Nations 2015:20). In addition, the maternal mortality rate of the country has been reduced by 71.8% from the year 1990 such that in 2015 the rate was 353 deaths/100,000 LBS, and yet, it falls short of the MDG five goal that expected Ethiopia to have reached 267 deaths/100,000 LBS (World Health Organisation 2015:30).

It should be noted further that Ethiopia achieved most of the Millennium development goal 6. The HIV/AIDS new infections and death is significantly reduced by 90 and 50 per cent respectively, while the mortality and prevalence of TB has decreased by more than 50% (Ministry of Health 2015b:31-32). In addition, the prevalence of malaria, admission rate, and major epidemic dropped, as evidenced by the data obtained from a 2011 review of 41 hospitals located in malaria endemic areas that showed a more than 50% drop in prevalence and admission rate compared to the year 2001 (Ministry of Health 2015b:35).

The expiration of millennium development goals in 2015 resulted in the introduction of the sustainable development goals (SDGs) and these span from 2016-2030 and consist of 17 broad goals targeted at multiple sectors. Ethiopia has endorsed the SDG; growth and transformation plan two (GTPII) and this has witnessed the introduction of a parallel plan of Health sector Transformation plan that is under implementation since 2016 in the country's health sector. Goal three "Good Health and Wellbeing" is directly related to health; and it has 13 targets and 26 indicators to monitor the set targets. In addition both goal two, which focuses on ending hunger and goal six, which concentrates on water and sanitation, also have health related targets (Inter-Agency and Expert Group in Sustainable Development Goal Indicators 2016:1-25).

### **1.2.2 Health sector in Ethiopia**

Ethiopia has successfully implemented four health sector development plans from the year 1997 to 2015 (Ministry of Health 2014b:3). In the year 2016, it launched a new plan called health sector transformation plan. This new plan has four thematic areas or pillars: excellence in health service delivery, excellence in quality improvement and assurance, excellence in leadership and governance, and excellence in health system capacity. There are 15 strategic objectives under these pillars. In addition, the transformation plan has identified four priority areas (transformation agendas) targeted for improvement in the following five years and these are: quality and equity in health care, information evolution, woreda transformation, and developing caring, respectful and compassionate health professionals (Ministry of Health 2015b:75-115).

#### **1.2.2.1 Health sector organisation in Ethiopia**

The Ethiopian health service is structured into a three-tier system: primary, secondary and tertiary level of care. The primary level of care is facilitated by a primary hospital, health centre and five health posts. Here, a primary health care unit consists of a health centre and five health posts, which serve for 25,000 people, while a primary hospital serves one hundred thousand people and the general and specialised hospitals constitute the secondary and tertiary level of care respectively. In addition, a general hospital serves one million people, while a specialised hospital caters for an average of five million people (Ministry of Health 2015b:142).

The structure of the health sector follows the political structure of the federal democratic republic of Ethiopia. The country follows the parliamentary system and has a political structure that comprises of federal and state governments. As a result, there are nine

state governments and two city councils. Nevertheless, geographically each state/regional government has a layer of divisions: zones, woredas, and kebeles from top to bottom respectively. In addition both city councils are divided into sub city and woreda administrations (Ageze 2012:1). The structure of the health sector follows this geographical structure. At regional, zonal and woreda level, the health sector has a regional health bureau, zonal health department and a woreda health bureau. Finally, public health sectors in the two city administrations have a division of sub-city and woreda health bureau.

### ***1.2.2.2 Health service coverage and utilisation***

The past two decades have witnessed Ethiopia achieving significant improvement in health service coverage and utilisation. Availability, accessibility and quality of health infrastructure that include hospitals, health centres, and health posts are the major determinant factors for health service quality, availability, accessibility, equity and efficiency of health services (Ministry of Health 2015a). The number of health posts, health centres and hospitals, had by the year 2016, reached 16480, 3562, and 241, respectively. This means that one health post, health centre and hospital serves 5596, 25 886, and 382 598 people, respectively (Ministry of Health 2016a:63). Outpatient visit per capita reached 0.63, having almost tripled from the 2010 data (Ministry of Health 2016a:51-52).

### ***1.2.2.3 Human resource for health***

In the last five years, Ethiopia has leaped in the area of human resource for health. From 2009 to 2015, the total number of medical and midwifery schools rose from 7 to 33 and 23 to 49 respectively. In the same period (2009-2015), the total number of medical doctors and midwives increased from 1540 to 5342 and 1270 to 11349 respectively (Ministry of Health 2016b:5). This marked improvement in human resource for health is nevertheless inadequate.

Ethiopia still needs to reach the standards set by World Health Organisation (WHO) in order to achieve the Sustainable Development Goals (SDGs). Currently, the WHO recommends that the minimum threshold to achieve the SDGs is 4.41 health workers per 1000 (Richard, Cometto, Tulenku, Bruckner, Liu, Keuffel, Preker, Stilwell, Brasileiro and Campbel 2016:10). Ethiopia's situation is entirely different as the health workforce density is far below the standard even of sub-Saharan countries. By 2014, Ethiopia's health workforce density was 0.7, while the sub-Saharan region average was 1.6 (Ministry of

Health 2015b:46). However, the rise in the number of new medical schools and health colleges is expected to increase modestly in the near future: the density increased from 0.7 to 0.79 in one year (the year 2016) (Ministry of Health 2016a:66; Ministry of Health 2016c:74). Finally, other challenges affecting the human resource for health arena include poor quality of education, low motivation and retention of health workers in the public sector, and poor human resource information system (Ministry of Health 2016c:82).

#### **1.2.2.4 Health care financing**

It is a system of managing and utilising finances and involves generating funds from any source, expending it and controlling the flow for health service delivery (Management science for health Inc 2017:37). The sixth national health account shows that the health expenditure of Ethiopia records an improvement from \$1.2 billion in 2008 to \$2.5 billion in 2013/14. The per capita expenditure increased in the last two decades as shown in the period 1995/96 to 2013/14 that witnessed a per capita expenditure growth from \$4.5 to \$28.5. This per capita expenditure growth, however, does not meet the expected standards.

Ethiopia has one of the lowest capital expenditure growth among all low-income countries. Thus, while the average per capital expenditure of other low-income countries was \$37, the WHO recommendation in the year 2011 was \$44 to provide basic essential health services (World Health Organization 2014:2). This national health account also shows that the major source of finances was: 36% from the rest of the world, 30% from government, 1% from private employers and others and the remaining 33% was covered by households or out of pocket expenditure (Ministry of Health 2017:6-10). The country invested 6.65 % of the total government expenditure in 2013/14, which is by far less than the Abuja declaration that urges governments to invest 15% of their budget (World Health Organisation 2011:1). Instead, Ethiopia's health sector is funded, for more than two thirds of the total expenditure, by either donor or out of pocket money from households.

There is no clear and consistent financing model to fund the health care expenditures in Ethiopia. The government, which had all the existing health care financing sources in place in 2012, issued a regulation to start social health insurance. The members of the scheme will be pensioners and employees of a public office, a public enterprise, or any person who employs at least 10 employees except for the defence forces. Accordingly, both the employee and the employer in social health insurance (SHI) would contribute money and, the money would be utilised to cover some health services such as inpatient,

outpatient, delivery and surgical services. The community-based health insurance system (CBHI) is based on membership on a household level, and all the members of the household are beneficiaries of the scheme and focus at the woreda and kebele level. (United States Agency for International Development 2012:10; Ali 2014:35-40).

#### **1.2.2.5 Leadership and governance of the health sector**

Leadership is “mobilizing others to envision and realize a better future”; whereas, governance is “the process of decision making and the process of which decisions are implemented , or not implemented (Management science for health,Inc 2017:35). The focus is thus on the nature of leadership and governance in the Ethiopian health sector.

The country has one plan (health sector transformation plan) in the health sector, which indicates that governance here focuses on policy making, planning, monitoring, evaluation and communication among the different actors of the health sector. The governance of the health sector transformation plan should be viewed in the context of the larger political context of the federal democratic republic of Ethiopia. The joint consultative forum (JCF), which is led by federal ministry of health, is the “highest governance body which decides, guides, oversees the implementation of health sector transformation plan”. Members of JCF include regional governments, bilateral and international NGOs, the private sector and other professional associations. Other committees include the joint core-coordinating committee, which is the technical arm of the JCF, and the ministry of health and regional health bureau steering committee (Ministry of Health 2015b:143-144).

#### **1.2.3 Hospitals in Ethiopia**

Hospitals play a very critical role in the provision of health and numerous professionals, both medical and allied professionals, are engaged in health services for 24 hours per day and seven days a week. The health services provided are in patient (admitted in hospitals) and/or as an outpatient. Finally, hospitals are unique in that they are labour intensive and employ various professionals (World Health Organization 2016a).

Ethiopia’s health tier system has three levels. Three kinds of hospitals exist and these are: primary, general and speciality hospitals at primary, secondary and tertiary care level, respectively. Primary hospitals provide inpatient and ambulatory services for up to 100,000 people. It is part of the primary health care unit with a capacity of 25-50 beds. It offers emergency surgical services that include caesarean section and blood transfusion.

General hospitals, which occupy the second level of the health tier system, serve up to one million people and function as referral centres for primary hospital. General hospitals also provide training for health officers, nurses and emergency surgical and obstetric professionals. Finally, specialty hospitals, which are staffed by an estimated 440 professionals, serve up to five million people and act as referral centres for general hospitals (Ministry of Health 2015b:142). Interestingly, there were 240 functional public hospitals in 2016 with the capital city having 11 hospitals (Ministry of Health 2016a:73).

### ***1.2.3.1. Initiatives focusing on hospital service quality improvement***

The ministry of health has endeavoured, in the past decade, to improve the quality of hospital services in Ethiopia. The federal ministry of health has had different initiatives/programs to improve hospital qualities and these include, the Ethiopian Hospital Health reform, which is currently implemented on 126 hospitals, the Ethiopian hospital alliance for quality, saving life through safe surgery initiative (SaLT), clean and safe hospitals initiative, and the improving nursing service initiative (Ministry of Health 2016c:49-51). In the Ethiopian hospital alliance for quality initiative, hospitals have been clustered based on their geographic proximity and performance and as a result, fifteen lead hospitals were selected to lead the nearby hospitals (Linnandera, McNata, Sipsmaa, Tatek, Abebe, Endeshaw and Bradely 2016:149).

The Ethiopian Hospital Reform is a broad-based reform that aims to achieve the overall transformation of hospital services. The previous reform guideline had thirteen sections., while the newly revised reform guideline (the name also changed to hospital services transformation guideline) expanded to include additional seven sections from the previous guideline. Both the previous and the revised guidelines discuss hospital leadership and governance in their first section, focusing on the responsibility of governing boards, chief executive officers (appointed by the board), senior management team, strategic planning and annual plan, and essential service packages (Ministry of Health 2016d:1-31). In addition, the health service transformation quality guideline has been prepared to lead the overall quality improvement in hospitals and health centres.

### ***1.2.3.2. Ethiopian national health care quality strategy***

The country developed and started to implement the national health care quality strategy from the year 2016 in order to support the transformation of nationwide health service

quality and hospital health care, (Ministry of Health 2016c:49). We will discuss it further in literature review.

### **1.3. STATEMENT OF THE RESEARCH PROBLEM**

Hospitals in Ethiopia face numerous challenges. There is high turnover of leaders and the quality of health care delivered in hospitals encounters tremendous problems. In addition, hospitals receive very limited inputs. All these difficulties lead to a low patient and health worker satisfaction, Society's grievances on these hospitals are uncontrollable. While there is a lack in studies on patient safety culture and outcomes, anecdotal evidence suggests that errors related to health care delivery and other patient safety problems are very common in Addis Ababa hospitals.

The researcher has the view that hospital leaders' and managers' effectiveness could affect all these parameters (health workers satisfaction and empowerment, safety and quality of care). In addition, the reason for high turnover of leaders and health workers should be investigated very well. As a result, the researcher seeks to identify reasons behind a high turnover of leaders and health workers, low job satisfaction, and empowerment, and poor patient experience of quality of care. The researcher seeks further try to determine the correlation between these variables and hospital leadership effectiveness; and suggest strategic interventions to improve all these parameters, as well as making hospital leadership and governance a wider framework for these interventions.

### **1.4. AIM OF THE STUDY**

#### **1.4.1. Research purpose**

The purpose of this study was to explore and propose strategies to improve the effectiveness of hospital leadership in order to enhance the quality of health care provided in hospitals through improving health workers' empowerment, job satisfaction and patient safety culture.

#### **1.4.2. Research objectives**

The specific objectives of this study were:

1. To assess leadership style (transformational, transactional and laissez- faire) of leaders and managers in public and private hospitals in Addis Ababa.

2. To measure health workers' empowerment, job satisfaction and patient safety culture in public and private hospitals in Addis Ababa.
3. To assess patients' perception of quality of health care provided in public and private hospitals in Addis Ababa.
4. To assess the effect of hospital leaders' transformational, transactional and laissez-faire/ineffective leadership style, on health worker empowerment, job satisfaction, patient safety culture and patients' perception of quality of hospital care.
5. To assess the effect of health workers' job satisfaction, structural and psychological empowerment on patient safety culture.
6. To explore factors affecting hospital leadership effectiveness, health worker job satisfaction and empowerment, patient safety and quality of care in Addis Ababa hospitals.
7. To formulate strategies for improving the effectiveness of hospital leaders and managers in Addis Ababa.

## **1.5 SIGNIFICANCE OF THE STUDY**

There is a lack of studies that focus on the effectiveness of hospital leadership in developing countries, particularly in Ethiopia. This study tested the association between effective leadership styles, health workers' empowerment, job satisfaction, patient safety culture, and patients' perceived quality of hospital care in both public and private hospitals. The final output of this study was to develop strategies that will help to improve the effectiveness of hospital leadership. The findings and strategies from this project address gaps on leadership and governance of hospitals in Addis Ababa. In addition, it will inform policy makers on how to improve hospital leadership's effectiveness, and ultimately the quality of hospital care in hospitals.

## **1.6 DEFINITION OF TERMS**

The key terms of this study are: Leadership, Transformational leadership, health workers' job satisfaction, empowerment, patient safety culture and patients' perceived quality of health care. In the context of this study, the researcher defines them as follows:

### **1.6.1 Leadership and management**

Leadership is "the ability to influence a group towards the achievement of a vision or set of goals". The source of the influence could be either from the authority embedded in the organizational structure or informally (Robbins, Judge and Hasham, 2012:259). In

addition, management could be operationally defined as “planning and using resources efficiently to produce intended results” (Management science for health 2017:35).

In this study hospital leaders include those in charge of overseeing, monitoring, and evaluating the activities of hospitals. These hospital leaders can also be managers and even members of the senior management team. The senior management team category includes: Chief executive officer, medical director, finance and admin manager, and department heads of hospitals, both for clinical and supportive department.

### **1.6.2. Effectiveness**

Effectiveness refers to the degrees to which objectives are achieved and the extent to which targeted problems are solved. Effectiveness means "doing the right thing (Business dictionary.com 2017a) and thus, contrary to efficiency, effectiveness is determined without reference to costs. The researcher measures the effectiveness of hospital leaders by determining the key attributes, traits and competencies of hospital leaders and managers that enable hospitals to achieve their mission and vision successfully.

### **1.6.3. Strategy**

It is a method or approach any person or organization follows to achieve the desired results in the future ahead. According to (Business dictionary.com 2020) , strategy is “the art and science of planning and marshalling resources for their most efficient and effective use.”

### **1.6.4. Transformational leadership style**

It is a style of leadership in which leaders set a more challenging expectation and followers are motivated to achieve what is set and even go beyond what is intended. Transformational leadership style has four characteristics and these are: idealised leadership, inspiring leadership, intellectual stimulation, and individualised consideration (Luthans 2012:430). Style, according to Business dictionary.com (2017b), is any characteristic or conduct persistently manifested by a person. This study, considers three kinds of leadership style in the first phase of the study, which are transformational, transactional and laissez- faire.

### **1.6.5 Transactional leadership style**

This leadership style is characterised by four distinctive behaviours (Luthans 2012:431) as noted below.

- a. Contingent reward: Contracts the exchange of rewards for effort; promises and rewards for superior performance; and recognises accomplishments.
- b. Management by exception (active): Watches and searches for deviations from rules and standards; and takes corrective action.
- c. Management by exception (passive): Intervenes only if standards are not met.
- d. Laissez-faire: Abandons responsibilities and avoids making decisions.

#### **1.6.6. Job satisfaction**

Luthans (2012a:142) defines Job satisfaction as, “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experience”. The study concerns itself with the health workers’ job satisfaction.

#### **1.6.7. Empowerment**

Empowerment can be defined as “recognizing and releasing into the organization the power that people have in their wealth of useful knowledge and internal motivation” (Luthansb 2012:322). It involves making decisions without someone else’s approval, but within the scope the organisation has vested on that individual.

Accordingly, hospitals empower their employees by imparting necessary skills and resources, as well as giving them authority and opportunity. In addition, holding employees accountable and responsible for the outcomes of their actions will improve competency and satisfaction.

#### **1.6.8. Patient safety culture**

The researcher took the definition of Agency for Health Care Quality and Research definition adopted from the Health and Commission of Great Britain. It states that: “The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organization’s health and safety management” (The Institution of Engineering and Technology 2017:1)

#### **1.6.9 Patients’ experience of quality of health care**

Patients’ experience of quality of health care is mostly measured by patient satisfaction tools. The patient satisfaction tools measure the structure or process, the two constructs in the Donabedian quality of health framework (Donabedian 1988:1743-1748), which determine the patients’ experiences. In addition, the institute of medicine defines quality of health care as “as the extent to which health services are provided to individuals and

patient populations to improve desired health outcomes; the care should be based on the strongest clinical evidence and provided in a technically and culturally competent manner with good communication and shared decision making” (Peerpoint Medical Education Institute 2012).

## **1.7. THEORETICAL FOUNDATION OF THE STUDY**

### **1.7.1 Research paradigm**

An understanding of the research paradigm followed in this thesis is paramount in formulating the conceptual framework, selection of research methods and the data collection tools used. There are various definitions of Paradigm and these include that: it is “a world view; an epistemological stance; shared belief in a community of researchers and as model examples of research” (Hall 2014:3). In addition, Teddlie and Tashakkori (2009:84) define a paradigm as “a worldview, together with the various philosophical assumptions associated with that point of view.”

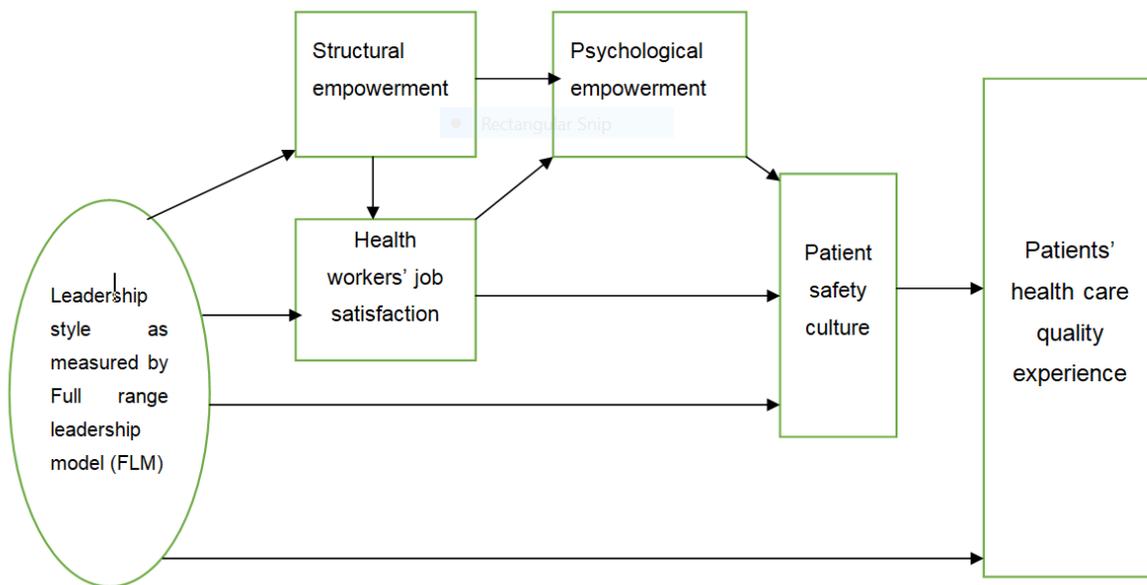
Disagreements exist among mixed method scholars regarding paradigm of choice for mixed method research. For this study, the researcher embraces the pragmatic world view as a research paradigm. The researcher view that the research problem should underpin the paradigm of choice. Thus, researchers should never hesitate to use both quantitative and qualitative approach together for as long as the research problem warrants the use of a pluralistic approach in the search for better solutions (Azorín and Cameron 2010:97).

Pragmatism is not confined to any one system of philosophy and reality. The research problem is best entertained by both the quantitative and qualitative approach and as such, it will utilise both and illuminate a new knowledge. In addition, the researcher has the freedom to choose any methods, data collection techniques and analysis in pragmatism (Yvonne Feilzer 2010:6-16; Creswell 2014: 9 Shannon-Baker 2016:322-326).

### **1.7.2 Theoretical frame work**

One way of inferring patients’ experience of quality of health care is by measuring patient satisfaction. The relation between both variables (Leadership styles and patient’s experience of quality of health care) can be potentially mediated by various factors. The researcher derived the following theoretical framework based on literatures. Health workers’ job satisfaction, empowerment, and patient safety culture mediate the relationship between leadership styles of hospital managers and patients’ experience of

quality of health care as measured by patient satisfaction. In addition, the researcher hypothesised that leadership styles of hospital leaders could directly affect patient experience of quality of hospital care. In phase one of this study, the researcher tested this conceptual framework. Then, in the second phase, the researcher scrutinised the first phase's empirical findings by applying the qualitative approach. In the third phase, he synthesised a hospital leadership strategy document that outlines approaches that can improve the effectiveness of hospital leadership in Ethiopia.



**Figure 0-1: The researcher's proposed research model, which connects the relationship between leadership styles, health workers' job satisfaction, empowerment, patient safety culture and patients' health care quality experience (Getachew)**

### **1.7.2.1 Transformational leadership**

Burns was the first who conceptualized transformational leadership (1978) and later it was developed further by Bass in 1985 as a leadership style seeking to improve the performance of employees to their highest potential. A strong set of internal values and ideals are often the hallmarks of transformational leaders. They are also capable of motivating employees for the highest attainable goals. Different studies in many fields, including in health, have shown that transformational leadership style is effective in increasing employees' job satisfaction, empowerment, and patient safety culture (Barlow 2013: 51-54; Higgins 2015:112-113).

### **1.7.2.2 Empowerment**

Concepts and other practices from different studies related to employee empowerment have demonstrated the following: (1) empowering subordinates has improved management and organizational effectiveness; (2) as superiors share power and control to subordinates, effectiveness of organization's and productive form of power grows; (3) group development and maintenance in team building benefits a lot by applying empowering techniques (Conger and Kanungo 1988:471).

A lot of researchers conducted work place empowerment studies on the nurse population. In this study, we examine work place empowerment's two perspectives: structural and psychological empowerment. The detail will be dealt in literature review part. Many studies show that there is a direct positive relationship between transformational leadership and health workers' empowerment, especially nurse professionals; and nurses' general job satisfaction and their empowerment (Cicolini, Comparcini and Simonetti 2014: 865; Choi,Goh,Adam and Tan 2016:5).

### **1.7.2.3 Job satisfaction**

Job satisfaction ultimately leads to improved job performance and organisational commitment, which ensures organisational success. Luthans (2012:142) has identified five dimensions of job satisfaction and these are pay, promotion, supervision, work itself and co-workers. Personal factors (age, ranking, length of service and person's ability to do the job) and personal characteristics (experience, age, gender and education) can affect the level of job satisfaction of employees (Bushra, Usman and Naveed 2011:262). In addition, various studies indicate that there is a strong positive relationship, both in health and other sectors, between employee's job satisfaction and leaders' transformational leadership (Gelard, Boroumand and Mohammadi 2014:887; Choi, Goh, Adam and Tan 2016:9).

### **1.7.2.4. Patient safety culture**

Patient safety is defined as "the values shared among organization members about what is important, their beliefs about how things operate in the organization, and the interaction of these with work unit and organizational structures and systems, which together produce behavioral norms in the organization that promote safety" (Singer, Lin, Falwell, Gaba and Baker 2009:400). The term is used by researchers interchangeably with patient safety climate, even though they might be used to convey different meanings. According to Zohar, safety climate is related to "shared perceptions with regard to safety policies,

procedures and practices,” whereas organizational culture, as described in the organizational literature, is “less traceable and more complex than climate”. Finally, safety climate is the observable and measurable part of organizational culture at a point in time (National Healthcare System 2010: 2; Savage, Fottler and Khatri 2010:103).

#### **1.7.2.5 Health care quality experience by patients**

Structure-Process-Outcome, as described by Avedis donabedian, is the most common and extensively used framework to measure quality of health care. Structure includes materials, human resources and the organizational structure, while Process pertains to the interaction between patients and health care workers, and outcome is related to health status. A good structure leads to a desirable process, and a desirable process will, in return, result in improved patient outcome. The measurement of patient experiences using patient satisfaction survey can enable researchers to infer about the structure and process of health care, the first two constructs in the Donabedian health care quality model (Liu, Singer, Sun and Camargo 2011:431). Finally, patient satisfaction refers to “patients’ emotions, feelings and their perception of delivered health care services” (Rama and Kanagaluru 2011:16), while patient satisfaction can be defined as “a degree of congruency between patients’ expectations of ideal care and their perceptions of real care received” (Rama and Kanagaluru 2011:183).

Various existing empirical studies uncovered the relationship between patient satisfaction and health workers’ job satisfaction, empowerment and a patient safety culture. Health workers’ job satisfaction is directly correlated with patient satisfaction (McHugh, Kutney-Lee, Cimiotti, Sloane, Linda 2012:205; Janicijevic, Seke, Djokovic, Filipovich 2013:159) weakly correlated with health workers’ empowerment (Bruning 2013:90) and strongly related with patient safety culture (Sorra, Khanna, Dyer, Mardon and Famolaro 2012:134).

### **1.8 RESEARCH DESIGN AND METHODS**

A researcher uses the research design and methods to answer his objectives. Both encapsulated the research approach, design and phases, method of data collection, population and setting, sample size determination procedures, data collection and analysis approaches, and quality issues. These are outlined in detail in chapter 3 of this study.

### **1.8.1 Research approach**

The researcher employed the mixed method approach in this study in order to answer his research questions. The mixed method approach is defined by Creswell (2014:2) as “ an inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks.”

### **1.8.2 Research design**

Houser (2015:141) defines research design as “the overall approach to or outline of the study that details all the major components of the research blue print or outline of study that must be followed”. This study had three phases. In the first phase, the researcher measured the relationship between transformational leadership style and the patient’s perception of quality of health care through the mediating effect of health workers’ job satisfaction, empowerment and patient safety culture. The findings of the first phase feed into the second phase by strengthening the findings of the first phase using a qualitative research design.

The second phase focused on factors that determine effectiveness of hospital leaders and managers; health worker job satisfaction and empowerment; and patient safety and quality of care. While the first phase of the study determined the status of these variables on public and private hospitals; the second phase aimed at a deep exploration of the specific factors that determine the variables, hospital leadership effectiveness, health worker job satisfaction and empowerment, patient safety and quality of care. After this, the third and final phase focused on formulating a strategy document to better the effectiveness of hospital leadership and improve job satisfaction and empowerment, patient safety and quality of care. All strategic areas, in the third phase, were emerged from the qualitative part of this study.

The best fit research design for this study is the sequential explanatory mixed method design. This is a research design in which the researcher first conducts quantitative research, analyses the results, and then builds on the results to explain them in more detail. As a result, it is sequential in that the quantitative study will be followed by the qualitative one (Creswell 2014:14).

### **1.8.2.1. Phase one study**

The first phase of the research can best be defined as a descriptive correlation study, which is a kind of quantitative study. Houser ( 2015:141) notes that a descriptive correlation study involves measuring the relationship between two variables' direction and strength of relationships. The hospitals found in Addis Ababa, both public and private ones, constituted site target population. The population was made up of 17 private and four general hospitals owned by Addis Ababa City Administration council (Ministry of Health 2015c:13-46).

The participant accessible population consisted of health workers in the nine hospitals who had been working for at least six months in those selected hospitals. In addition, all patients in those randomly selected hospitals who were getting patient services at the time of data collection were included.

All chief executive officers, medical directors, heads of departments of the selected nine hospitals were included in the study. Epi info version 7.2.2.2 was used to calculate the sample size for Health Worker's empowerment general work satisfaction, patient safety culture and patient satisfaction (Center for Diseases Contro and Prevention 2017).

The level of general health worker's satisfaction has taken 51.3% from the previous study (Ethiopia Strengthening Human Resources for Health Project 2015:30); type one error 5%; margin of error of 5%; design effect of 1.5 ; 95% confidence interval. The sample size was 576 after the finite population sample size correction. Furthermore, the addition of non-response rate of 10% created a final sample size of 634 health workers and these were used to determine the general health workers' satisfaction, empowerment and patient safety culture.

A study done at Jimma specialised hospital showed an overall patient satisfaction of 77% (Assefa, Mosse and Hailemichael 2011:101-109). The study showed further that with a 95% degree of confidence; margin of error 5%; type one error 5%, and design effect of 2, the total sample size was 544. After adding 10% non-response rate, the final sample size was 599 patients.

The researcher used the Multifactor leadership questionnaire leader form (MLQ5x) to explore the leadership styles. The MLQ5x form is a psychometric tool that is used to measure leadership styles ranging from a passive to transformational leader, developed by Avolio and Bass (Statistics Solutions 2016). The health workers' satisfaction was

measured using a tool developed by Alpern and her colleagues, which was tested psychometrically in Ethiopia setting (Alpern, Canavan, Thompson, Mcnatt, Tatek, Lindfield andBradely 2013:1-8). The researcher also used a tool developed by Agency for Health Care Research and Quality to assess the safety culture of hospitals (Agency for Health Care Research and Quality 2013). In addition, the psychological and structural empowerment were measured using a psychological empowerment and The Conditions of Work Effectiveness Questionnaire-II respectively (Spreitzer1995:1464-65; O'Brien 2010:75-76). Both questionnaires are well tested psychometrically.

Finally, the researcher used a tool developed by Agency of Health Care Research and Quality called The Hospital Consumer of Health care providers and Systems (HCAHPS) to Measure patients' perception of service quality, (Agency for Health Care Research and Quality 2015:1-17).

#### **1.8.2.2. Phase two study**

The quantitative study findings in phase one were further scrutinized using a qualitative study. This involved interview of hospital leaders and managers. The accessible site population was general public and private hospitals, institutions or organizations consisting senior policy experts, administrators, and academicians. The respondent population consisted of those hospital leaders and managers, senior health policy experts, administrators and academics, and the service year for these leaders and managers lasted more than one year.

A purposeful (Judgmental) sampling technique was employed to reach the respondent accessible population. The respondents sample size was based on data saturation point wherein key informant interviews were continued until the data saturation point was reached. The researcher's semi structured interview guide drew on findings from phase one study, an extensive literature review and consultation with experts in the field.

The data collection involved tests and training and the ultimate interviewing of the respondents. Firstly, the data collection instruments were pretested. Secondly, the data collectors and a manager were trained for two days before data collection. Thirdly, the researcher conducted all key informant interviews, using semi-structured questionnaire, with experts in the field of hospital leadership. The researcher arranged appropriate time to interview the respondents and took notes as well as tape recorded the interviews with the respondents' permission.

### **1.8.2.3 Phase three study**

The third phase of the study focused on formulating a strategy to improve the effectiveness of hospital leadership. The researcher used inputs from the first phase of the study to strengthen the findings by conducting a qualitative study, specifically content analysis. The first phase of the study helped to identify whether differences existed in public and private hospitals regarding leadership effectiveness and outcome; health workers satisfaction and empowerment; patient safety and quality of care. The second phase made a deep and critical analysis of the major factors affecting all the above-mentioned study variables. Strategic priority areas emerged from the identified themes in the second phase of the study with the third phase of the study contributing to the formulation of the strategy document.

### **1.8.3 Data quality control**

The researcher ensured the quality of data through different approaches. Data quality was ensured in the first phase of the study through reliability and validity; where as in phase two study ensured trustworthiness by applying multiple strategies.

#### **1.8.3.1. Validity and reliability**

A data collection instrument (DCI) can be defined as the means (physical or nonphysical) of producing quantitative or qualitative data for analysis and interpretation (Griffiee 2012:128). Data instruments must be valid and reliable. Validity and reliability are the psychometric properties of a data collection instrument that are used to measure the adequacy and accuracy of our measurement instruments. Measurement tests must be valid and reliable as the process measures the true meaning of the intended and rightful responses in a consistent manner (Bhattacharjee 2012:55-58):

**Validity:** often called construct validity, refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure.

**Reliability:** is the degree to which the measure of a construct is consistent or dependable. All the five questionnaires in phase one of the study are known tools whose validity and reliability are tested, and they are also extensively used in other studies. Health workers' job satisfaction, empowerment (both structural and psychological), patient safety culture and satisfaction tools are free and publicly available. The researcher officially requested the responsible bodies' consent to use the MLQ5x tool. In addition, the multifactor

leadership questionnaire, staff satisfaction, empowerment, and patient safety culture tools would be self-administered in English language, while the patient satisfaction assessment tool would be translated into the Amharic local language and administered by data collectors.

### **1.8.3.2 Trustworthiness**

Trustworthiness, rather than validity and reliability, is the concern of qualitative study. Trustworthiness can be thought of as the ways in which qualitative researchers ensure that transferability, credibility, dependability, and conformability are evident in their research (Given and Saumure 2012:1).

In phase two study, the researcher prepared a semi-structured interview guide based on the findings of phase one study, consultation with experts and an extensive literature review. Then the interview guide was pre-tested with respondents of similar experiences and interests such as the study group. The results from the pre-testing were further used to enrich the interview guide in order to make in-depth key informant interviews. The researcher used different techniques (prolonged engagement and member checking) to improve the validity of phase two research (Houser 2015:394-395). The researcher also engaged himself immensely in the critical processes of interview guide preparation, data collection, data analysis and write up, with such engagement activities being called prolonged engagement. The transcribed and translated data was sent to the interviewees to check whether the data was accurately transcribed and translated, this is called member checking.

### **1.8.4 Data management and analysis**

The collected data was checked for consistency and completeness. Then the data was entered into EPI Info 7.2 Software, and transferred to SPSS Version 25. Data was also cleansed by the researcher.

For phase one of the study involved a descriptive analysis (Table, frequency, mean, standard deviation), bivariate and multivariate analysis (Z test, logistic regression and multiple regressions) and structural equation modelling.

For phase two of the study consisted of the transcription of the interview data into texts, the texts were translated in to English, and entered into the Atlas.ti qualitative data analysis software. The researcher immersed himself into the data by reading and re-reading the transcripts, cleaning the data, identifying code characteristics, and sorting

codes into themes and patterns to reduce the data. Then the data was interpreted by searching for the core meaning of thoughts, feelings, and attitudes of key informants and use of categorizing patterns, recurrent themes and range of issues based on the research question. The third phase of the study involved the synthesis of a final strategy document based on the inputs of the first and second phase of the study.

### **1.9. ETHICAL CONSIDERATION**

Research Ethics is defined as “the ethics of the planning, conduct, and reporting of research. It includes protections of human and animal subjects” (Resources for Research Ethics Education 2016). Thus, in the interest of meeting the characteristics mentioned in the afore-mentioned definition, ethical clearance was requested from the Ethics and Higher Degrees Committee of the Department of Health Studies, University of South Africa (Annexure A). A support letter from the Addis Ababa Regional Health Bureau (Annexure B) was also sought before conducting the data collection. In addition, this study complied with the Research Ethics principles of UNISA and the Ministry of Science and Technology of Ethiopia. Hence, the completed questionnaire and the transcripts were kept confidential; and ethical principles in the entire process of the research were kept. The researcher ensured confidentiality and anonymity using a participant identification number instead of their actual names, and protected the collected data from disclosure to unauthorised persons.

Respondents were also assured of confidentiality throughout their participation. Informed consent, as noted in the form (Annexure C) attached, was used to request each participant’s/respondent’s willingness to participate in the study. Then, each respondent signed in approval before the data collection process started. Finally, the researcher respected the right of respondents to abstain from participation or to withdraw their consent to participate at any time without reprisal.

### **1.10. SCOPE OF THE STUDY**

Ethiopia has nine administrative regions and two city councils, one of which is Addis Ababa city administration. Addis Ababa is the capital city of the country. There existed, in 2016, 240 functional public hospitals in the country with the capital city, Addis Ababa having 11 hospitals (Ministry of Health 2016b:73). Most of the private hospitals are situated in Addis Ababa, which has a total of 33 private hospitals (Ministry of Health 2015c:13-46). The findings of this study may apply to all public (both federal and regions owned) and private hospitals in Ethiopia. Nonetheless, the research was conducted on

nine public and private general hospitals in Addis Ababa only, thus calling for caution against generalising the study findings to all public and private hospitals operating in the whole regions of Ethiopia.

### **1.11. STRUCTURE OF THE THESIS**

This thesis consists of six chapters as outlined below:

Chapter 1 presents an orientation to the study.

Chapter 2 focuses on the review of existing literature about this study.

Chapter 3 outlines the research design and methods.

Chapter 4 analyses the data and presents the research findings.

Chapter 5 concerns itself with formulating a hospital leadership improvement strategic document.

Chapter 6 engages in a discussion on the study, and makes conclusions and recommendations.

### **1.12. CONCLUSION**

This chapter briefly described the blue print of the thesis. It outlined the background of the research problem, the aim and significance of doing this study. The researcher also described the theoretical foundation of the study and the research design and method briefly.

The next chapter focuses on a detailed review of literatures supporting this study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTION**

Any attempt to answer a research question begins with an assessment of the available body of knowledge. This literature includes a wide range of sources such as print, virtual and image material that would have been referred to by researchers for multiple purposes (Depoy and Gitlin 2016:65). Thus, a literature review is a comprehensive appraisal of ideas on a research topic, particularly already existing studies in a particular research area (Learning and Information Services 2013:1). A literature review can have many functions and these include identifying what has been already known in the field of interest, determining one's research "level of knowledge and theory", providing concrete justification for the research problem and assisting in the researchers selection of a research design (Depoy and Gitlin 2016:67-69).

Hence, the researcher consulted various text books, online and paper journals, International and government policy documents and guidelines, newspapers and websites to understand and infer about the effectiveness of hospital leadership. The researcher searched extensively on leadership styles, effective hospital leadership, theories on leadership, patient safety culture, health worker empowerment and satisfaction and quality of hospital care. The researcher used Google scholar, PubMed central and the UNISA online library to access necessary literature resources.

#### **2.2. LEADERSHIP**

##### **2.2.1. Introduction to leadership**

Various studies have been carried out and huge amounts of literature on leaders and leadership produced, yet we still lack a "grand unifying theory" or concept that creates a universal consensus among scholars in the field of leadership. Leadership is hard to study for we exhibit leadership after the event has occurred (Allio 2012:4-5). Nonetheless, leadership is defined as "the ability to influence a group towards the achievement of a vision or set of goals". The source of the influence could be either from the authority embedded in the organizational structure or informally (Robbins, Judge and Hasham 2012:259).

Leadership and management confuse many people as some use the terms interchangeably and yet their meaning vary. Both are important for the success of an organization, with good management creating order and consistency through the formulation of plans, accomplishing those plans and fitting them well into the organisational structure; and monitoring and evaluating organisational activities against those plans. Leadership focuses on coping with change, while leaders create a vision, communicate, align and inspire people around that vision. The five major functions of leadership are to: set and aim on visions and help the group to focus on it; build a high performance team; energize the team to stay motivated; create harmony with superiors and the environment to gather resources for action; and create a satisfying team to minimize dropouts (DiGirolamo 2010:1-12). Management focuses on implementing the vision and strategy created by leaders. It will staff the organisation and create better coordinating mechanism to implement the vision and strategy given by leaders (Robbins, Judge and Hasham 2012:259).

### **2.2.2. Effective leadership**

There is no agreed up consensus on the definition of effective leadership. Some have searched literatures on leadership effectiveness and found 5000 definitions (Sudha, Shahnawaz and Farhat 2016:113). Leaders influence behavior or ideas of others. Effective leadership, in a group perspective, implies group efforts are focused to achieve a common goal (Sogunro and Brook 1998:28). Yukl (2008:711) also defines leadership effectiveness as “Leader’s ability to effectively influence followers and other organizational stakeholders to the goals of the organization”.

Researchers in leadership agree that, among many factors, leadership effectiveness is one of the critical ingredients for the success of an organisation. Even if there is no consensus on the measuring of leadership effectiveness, a leader’s effectiveness is measured by the consequences of their actions, attitude of followers towards their leader, and behavior that leaders manifest (Madanchian, Hussien, Noordin and Taherdoost 2017:1043).

Madanchian *et al* (2017:1045-1046) summarised the possible outcome measurement of an effective leaders as follows:

- Group performance and success of group goals: Group goals are set and assessed to determine whether they would have been accomplished. If the goals

are achieved, it is an indicator of the way a leader could affect the subordinates and work towards the success of the organisation. Effectiveness evaluation of subordinates, colleagues and supervisors could be cited as a subjective measurement.

- Subordinate evaluation of leaders' effectiveness: The subordinate will be requested to measure the effectiveness of that leader. Examples include the performance of the leader's organisational unit and evaluation of leader effectiveness based on specific activities.
- Evaluation of subordinate job satisfaction: various studies measure the satisfaction of subordinates to infer about leaders' effectiveness.
- Improved subordinate satisfaction and performance.
- Subordinates' opinion of and willingness to work for a leader.

Numerous theories of leadership exist and these explain the effectiveness of leaders from the great man theory of leadership to the contemporary theories of leadership. The contemporary theories fall under the following three perspectives: process or relationship between leaders and subordinates, as a combination of traits; personality characteristics, as certain behaviors; and leadership skills, commonly called leadership competencies. The principles of leadership are highly studied to define the characteristics and functions of effective leaders (Amanchukwu, Stanley and Ololube 2015:6-7).

The usual practice of measuring leadership's effectiveness in hospitals is to measure either the behavioural attributes or styles of leaders (Hamlin and Patel 2011:231-261; Yozgat and Sahin 2013:216-221). Competencies, visible and measurable capabilities of hospital leaders, can also be measured to determine the effectiveness of leadership in hospitals (National Health Service Institute for Innovation and Improvement and Academy of Medical Royal Colleges 2010:11-58; Healthcare Leadership Alliance and The American College of Healthcare Executives 2015:3-21; Pihlainen, Kivinen and Lammintakanen 2016:11-58). In addition, leadership scholars have, in recent years, shifted their emphasis from the previous agency model (focusing on individual traits, centering on self and seize opportunities) to viewing individuals as pro-organisational, self-actualising and trust worthy and the relational, where the relationship between leaders and followers take the central premise in studying effective leadership (Dierendonck 2011:1229).

The following review of current practice of leadership presents the researcher's outline of the current leadership practices, behaviors, principles and theories. The goal of this thesis is to formulate a strategy which enhances the effectiveness of hospital leadership in Ethiopia. Therefore, the researcher emphasises on the contemporary theories and models of leadership, which other researchers in health care leadership have also engaged with and new emerging leadership models in health care, such as adaptive leadership and resonant leadership.

### **2.2.2.1 Competencies of effective clinical leadership**

Competences are a “cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organisation) to act effectively in a job or situation” (Business dictionary 2017c). These competencies could be a person's knowledge, skill or attitude that will be judged as their executing capacity.

A systematic literature review was conducted by Pihlainen, Kivinen and Lammintakanen (2016:95-110). They identified 13 articles that fulfilled the inclusion criteria. Thirteen subcategories emerged and these were later classified into three major categories of management and leadership competencies. These major categories are:

- *Health care context-related management and leadership competence:* It is broken down in to four sub categories: social, organisational, business and financial competence. In social competence, leaders and managers of hospitals should have a knowledge and understanding of laws and rules related to the political, social and legal environments in which the hospital is working. Organisational competence and related skills are skills directly related to the management and leadership of hospitals (organisational tasks and work content). It is the knowledge and understanding of organisational functions, relationships, and decision-making systems. Business competency is the capability related to the practices of business skills in a health care setup as well as processes in implementing changes, services, development, resources and planning. Health care is considered as a business industry and it requires business skills to manage it successfully (Kim and Kathryn von 2014:150-180). Financial competency relates to knowledge and skills on financial, marketing and budgeting and the effective implementation of those skills to manage health care organisation.
- *Operational management and leadership competence:* The subcategories included here are: process, operation, clinical and development competences; (1)

Process competence refers to the knowledge and understanding pertaining to improving quality and service processes and management that is directly related to patients; (2) Operation competence refers to the ability to manage a ward using clinical skills. It also involves an awareness of and understanding of operations, available resources, executive tasks thoroughly and abilities to delegate;(3) Clinical competency refers to capability related to professional, clinical, profession related credibility, and current medical knowledge. It also entails the development and improvement of related abilities to the employees, which is categorised as the development competence.

- *General management and leadership competence:* It is a cross cutting competency of management and leadership skills for all health professionals that consists of the following subcategories: time management, interpersonal skills, strategic mindset, thinking and application skills and human resource management. The ability to monitor tasks and time schedules refers to time management. One's ability to communicate effectively and create a rapport with people is called interpersonal skills. Strategic mindset refers to competences related to strategic thinking, processes and vision and strategic development. It may also refer to the ability of managers to motivate employees and to execute the mission and strategic planning. Analytical thinking and communicating the mission and vision of the organisation with others also refers to strategic mindset. Thinking and application skills refers to performing a number of tasks at a time, thinking critically, prioritising, and using information for decision making and problem solving. Finally, human resource management competence refers to skills and knowledge related to human resource management.

The three general areas of competencies in both leadership and other business areas include: technical competence, conceptual skills and interpersonal skills (West, Armit,Loewenthal, Eckert, WestandLee 2015:8). These are outlined below:

1. *Technical competence:* the leader is well versed about the organisation and the general health care service environment that their organisation would be operating. The leader is knowledgeable about his/her organization strategy, structure and processes; in addition, the leader knows very well about treatments and technologies. The technical competence will enable the leader to get respect from followers.

2. *Conceptual skills*: the leader tries to comprehend and conceptualise the complex environment, both internal and external, plans actions and makes serious of decisions. The decision-making capability of the leader helps to build confidence of followers in the organisation.
3. *Interpersonal skills*: entail creating rapport with followers by understanding their needs and feelings, as well as becoming emotionally mature and controlling own reactions towards followers.

It is possible to infer that the systematic review conducted by Pihlainen and his colleagues on hospital leadership and mangement competence could lie in one or two categories of skills as mentioned above by West and his colleagues.

The National Health Service Leadership Academy set a clinical leadership competency framework for clinical leaders. The framework, as presented below in Table 2.1, seeks to deliver safe, effective and patient-centered health services. It is assumed that the clinical leadership position should have five domains of leadership and these are reached at after serious of deliberations between the health sector and multiple stakeholders. Under each domain, there are four categories called elements; with each element defined by competency (outcome) statements (National Health Service Leadership Academy 2011:5-59).

**Table 2-1:National health service leadership academy leadership competency framework**

Leadership domain	Elements of domain
Domain one: Demonstrating personal qualities	Developing self-awareness
	Managing one's self
	Continuing personal development
	Acting with integrity
Domain two: Work with others	Developing networks
	Building and maintaining relationships
	Encouraging contribution
	Working within teams
Domain three: Managing services	Planning
	Managing resources
	Managing people
Domain four: Improving services	Managing performance
	Ensuring patient safety
	Evaluating services critically
	Encouraging improvement and innovation
	Facilitating transformation

Domain four: Setting directions	Identifying the context for change
	Applying knowledge and evidence
	Making decisions
	Evaluating impact

The American College of Health Care Executives (ACHCE) developed a health care executive assessment tool that measures critical areas of health care management along with the necessary competencies or attributes under each category (Healthcare Leadership Alliance and The American College of Healthcare Executives 2015:1-20). The ACHCE identified five domains (areas) and these are:

1. *Communication and relationship management*: it refers to facilitating, establishing and maintaining clear and concise communication relationships with both internal and external customers. The competencies include, relationship management, communication skills, and facilitation and negotiation;
2. *Leadership*: leadership skills and behavior, organisation climate and culture, communicating vision, and managing change are the competencies/attributes identified;
3. *Professionalism*: it refers to “The ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement”. Competencies under professionalism include: personal and professional accountability, professional development and lifelong learning, contribution to the community and professions;
4. *Knowledge of the health care environment*: the following competencies are identified under this domain, health care systems and organisations, health care personnel, the patient’s perspective, and the community and the environment; and
5. *Business skills and knowledge*: general management, financial management, human resource management, organisational dynamics and governance, strategic planning and marketing, information management, risk management, and quality improvement.

According to this model, leadership intersects the other four domains as depicted below. The competencies/attributes in each domain are broken into measurable sentences to enable individuals to give their responses on a 5-point Likert scale. Based on executives’

responses, they could be categorised as novice, competent and expert with increasing level of competences.



**Figure 2-1: Adopted from ACHE Healthcare Executive Competencies Assessment**

It can be inferred that the National Health Service Leadership academy’s leadership competency frameworks and the American College of Health Care Executives’ executive competencies model have a major overlap between them despite minor differences. The following table depicts the similarities and differences between both competency models.

**Table 2-2: Similarity and difference between the National Health Service (NHS) Leadership Academy Competency framework leadership competency domains and The America College of Health Care Executives Competency assessment tool**

<i>National Health Service (NHS) Leadership Academy leadership competency domains</i>	<i>American College of Health Care Executives (ACHCE) Healthcare Executive competencies assessment tool</i>
<b>Similarities</b>	
<i>Domain one: Demonstrating personal qualities</i>	<i>Professionalism</i>
Acting with integrity and lifelong personal development from the NHS’s leadership competency domains match with professional development and lifelong learning, and personal and professional accountability. Similarly encouraging contribution from domain two of the NHS’ could be compared to professionalism’s contribution to the community and the profession.	
<i>Domain two: work with others</i>	<i>Communication and relationship management</i>
Both discuss the importance of communication and creating networks to work with other stakeholders such as employees.	
<i>Domain three: managing services</i> <i>Domain four: improving services</i>	<i>Business skills and knowledge</i> <i>Knowledge of health care environment</i>

They both focus on the characteristics of managing and improving businesses and these include managing resources, people, strategic planning and marketing. They also focus on the importance of continuous quality improvement.

#### **Differences**

The ACHCE's model identified leadership as a separate domain and discusses leadership skills and behavior, organisational culture and climate, communicating vision and change management. The NHS's model elaborates the five domains as leadership skills and behavior that needs to be assessed and nurtured. An examination of the individual domain and competence show that the NHS's leadership model incorporates the emotional intelligence competencies under domain one, "developing self-awareness and managing oneself". Team work and patient safety-related competencies are also included in the NHS's model and these are given due emphasis in the current health care management literatures focusing on creating a hospital environment that is error free.

### **2.2.2.2 Principles and styles of effective leadership**

The Work Foundation conducted in depth 262 meetings with 77 leaders, managers and their direct reports who worked in six well known and enduring organisations in United Kingdom (Tamkin, Gemma, Wendy and Sussanah 2010:1-12). The study noted that outstanding leaders demonstrate high performance achievement and adamantly focus on people as they have the view that they achieve high performance through people. This study identified three leadership principles of outstanding leaders and these are: think and act systematically; see people as the route to performance; and be self-confident without being arrogant. Nine themes, which outstanding leaders do, are identified and these are:

1. *They think systematically and act long*: they think systematically and always consider the long-term benefit for the organisation when they make decisions;
2. *Bring meaning to life*: enable a strong and shared sense of purpose across the organisation;
3. *Apply the spirit not the letter of the law*: focus on the few key systems and processes, which help provide clarity, give structure, enable feedback, allow time for discussion and enable the development of vision;
4. *Self-aware and authentic to leadership first*: their own needs second;
5. *Understand that talk is work*: as they are people centered, they talk with people and try to understand what motivates them and how they can support and boost enthusiasm in others;
6. *Give time and space for others*: they give more time for people, particularly, give more space and freedom so that the people could decide by themselves;

7. *Grow people through performance*: encourage their people to learn, grow and engage in the challenges that the people face daily;
8. *Put “we” before “me”*: encourage team spirit, shared decision making and collaborative work and bond within and between teams;
9. *Take deeper breath and hold them long*: actively build trust by delivering on promises and acting with consistency, which in turn, leads to a sense of security and greater freedom of expression.

Health care, just as the other fields, is becoming very complex. As a result, health care leadership needs to be based on principles, anchored well on the principles of maintaining and even excelling, high quality and safety health care, in order to cope with this change. The following principles are suggested, given the complex nature of health care system, (Saul, Best and Noel 2014:1-4):

- *Clarity of purpose*: the health care system tends to be fragmented and with the traditional silos among different health professionals during their training being responsible for this fragmentation. Currently health care is less safe and health care leadership needs to clarify its purpose.
- *Alignment of effort*: all stakeholders in the health care (ministers, boards and CEOs, clinicians and other front-line workers) need to work together towards the creation of a shared vision, and identify their role and work on the future health care system.
- *Credibility of leadership*: leading by example, taking risks and courage is critical to engaging followers working with leaders. Leadership should show due diligence to build a trusted relationship with stakeholders (middle managers, senior managers, followers, patients etc). “Relationships foster better communication that fosters better interconnectedness that fosters networks that foster the emergence of ideas, practices and systems”. Leadership should set winning subordinates’ trust and close engagement as a top priority that will enable the embracing of their vision and purpose. After all, leadership garners the results through the people in that sector/organisation.
- *Integrity in the organisation*: a complex continually evolving health care system needs a strong core value (balancing personal and organisational value), adaptability and flexibility. Encouraging diversity and different points of view will assist the organisation to accomplish its goals, especially help on engaging employees more. Leadership can use diversity to engage employees and make

sure that the diversity is helping to accomplish the vision of the organisation set along a given direction. Integrity is the central theme in authentic leadership, and as such, the researcher will review this under authentic leadership.

- *Accountability for performance*: it is true that leaders are accountable for the organisational and system performance, as a result, collective accountability (of all potential stakeholders) should be exercised to achieve better outcomes through an enhanced system performance. Stakeholders (physicians, other care providers, professional associations, regulatory bodies, government, regional networks, the public – i.e., patients and their families) should be heard and engaged with, in a meaningful way in all aspects of health system process, such as planning, implementation and decision making.

Leaders follow different leadership approaches depending on nature of organizations, groups and followers, and situations. Amanchukwu, Stanley and Olorube(2015:6-10) identified six kinds of leadership styles: autocratic, bureaucratic, charismatic, democratic/participative, Laissez-faire, and transactional. The laissez-faire leadership style is part of the full range leadership model and the researcher will fully elaborates on this later under transformational leadership. The approaches are described below:

- a. *Autocratic leadership style*: leaders have complete power over staff. Staff do not have any contribution on decisions even if it may be helpful for the organisation. The main advantage of this leadership style is its efficiency as the decision made will be implemented immediately. However, this may create dissent among staff owing to the reality that their say would not be valued. This leadership style is useful in a crisis where decisions should be made urgently.
- b. *Bureaucratic leadership style*: The leaders who choose this approach have a propensity to rely on rules rigorously and ensure that staffs follow procedures precisely. This kind of leadership style may be applicable in organisations that attempt high risk jobs (such as nuclear plants, machineries etc). This leadership style is not effective in organisations which encourage teamwork, creativity and innovation.
- c. *Charismatic leadership style*: unlike the above leadership styles, this leadership style inculcates the expectation from followers as well as leaders. The leaders inspire and energise their followers to increase commitment and motivation to cascade the given job given. The positive side of this style lies in its reliance on

one person; however, the negative side is that the organisation will be in jeopardy if that charismatic person leaves the organization. In addition, despite the leaders being informed are not on the right direction, they view themselves as always correct and invincible.

- d. *Democratic/participative leadership style*: the leader engages employees in decision making even if the leader decides finally. This kind of leadership encourages creativity and makes employees highly encouraged. Job satisfaction and productivity of employees will be boosted as they will be more engaged, and consider themselves as part of the larger and meaningful organisational mission and vision. However, the democratic/participative leadership style may not be suitable in a crisis where decision making may take a protracted time. In addition, team members may not be competent and if they are given a space for decision making, they may provide unacceptable decisions for the situation.

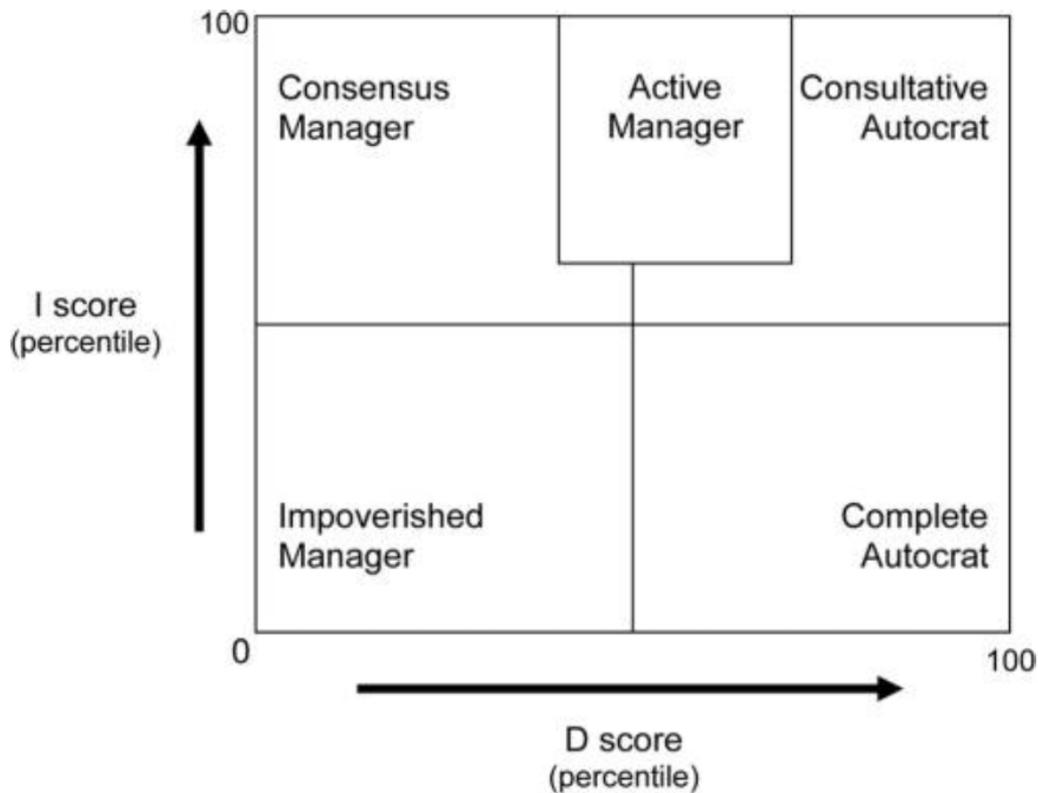
Six types of leadership styles, based on aspects of the leaders' emotional intelligence, that will promote their effectiveness and impacts on organisational climate, and these are: visionary, coaching, democratic, affiliative, pace setting, and authoritative. Four of these aspects are resonant leadership styles, and the remaining two (pace setting and authoritative) are dissonance leadership styles. A leader can learn and use these different leadership styles in different situations. Resonant leaders are visionary, coaching, affiliative, and democratic, whereas dissonant leaders are pace setting and commanding. All types of leadership styles may be useful under different circumstances (Offices of Human Resource Services University of Florida Training and Organizational Development 2013:1-3).

- a. *Visionary leadership style*: it is appropriate when organisation needs a new direction or employees need to connect on a shared dream. Such kind of leaders show for their subordinates where they could reach (define their goals), but do not define the strategy, or how to reach there. The how part to reach on the goal will be determined by subordinates and they are free to innovate their way. Every person under the visionary leader understand what is expected from them.
- b. *Coaching leadership style*: it focusses on employee's personal development and becomes most effective when employees identify their weakness and are ready to improve. The leader focuses on supporting employees to improve their skills.

These leaders excel at delegating, view the mistakes and weakness of employees as a learning opportunity, and give continuous feedback to subordinates.

- c. *Affiliative leadership styles*: the attitude of such kind of leadership style is “people come first.” He/she promotes good communication and relationships within a group. Team building and trust on individual team members is the hall mark of affiliative leadership style. Affiliative leaders tend to offer positive feedback for team members, but decline to do so when the feedback is negative.
- d. *Democratic leadership style*: this style does take the opinion of the subordinates and the leader negotiates with the subordinates to strike a consensus
- e. *Pace setting leader*: Such kinds of leaders are result oriented, set high performance standards for their subordinates and try to lead followers by example. The leader will re-assign the job to somebody if the assigned employee lags behind. Employees may think that the leader should be sensitive and thoughtful for their inability to attain the goal.
- f. *Autocratic leadership style*: These leaders prescribe what the subordinates execute at the minute detail.

Every employee at all levels in modern organisations needs to demonstrate leadership in their sphere. It is also the duty of top leadership to set visions and directions of their organisations. Therefore, leadership at all levels must exercise innovation, motivate others, and seek quality and service improvement. Leadership promoting team work garners better results. Thus, an examination of the pattern of gathering and sharing information and whether decision making is shared or individually made, can reflect the status of team work and leadership styles exercised in that organisation. A model called Leadership Flexibility Space examines the status of group involvement in information sharing (*I*) and decision-making styles of the leader (*D*). It is called a Leadership Flexibility Space because a leader can take any space along the continuum through time and the style could be changed through time, coaching and training (Singh, Asce and Jampel 2010:176-177). Here, the I- axis ranges from information input not taken by the group leader from group members to information input taken from all in the group. The D-axis ranges from decisions taken solely by a group to decisions taken solely by the individual leader.



**Figure 2-2: Leadership-team work flexibility space (adopted from Singh and Jampell)**

The information sharing practice and decision making styles indicate that leadership styles could be mapped as follows (Singh, Asce and Jampel 2010:178):

- a. *Consultative autocrat*: the leader will take input from all, but he/she solely decides by his/her own. In other words, the team does have a say as the leader gathers information from them.
- b. *Complete autocrat*: the leader neither takes any body's input nor engages them in decision making. Team members' concern are not reflected in the decision solely taken by the leader.
- c. *Impoverished manager/share holder*: the team leader does not either take information from the team members or decide by his/her self. The team decides randomly in a disorganised manner. Such kind of leadership will ultimately result in chaos in the organisation.
- d. *Consensus manager*: after taking the input from teams, the decision will be decided by consensus. Sometimes the group interest will override organisations

and minority group interests/ideas may be neglected despite their idea being worthy of consideration in improving the organisation goals.

- e. *Active manager*: these managers are independent, consider group input efficiently; and avoid autocracy. They are people and production oriented and their style could be equated with transformational leadership style.

A mixed method research was conducted by Chapman, David and Karen ( 2014:284-298) in England to evaluate senior medical leaders' style of leadership and how frequent they practice it. The researchers used two models of leadership: Goleman's as well as Singh and Jampel's' leadership style models, as described above. The respondents were medical directors in acute hospitals of 14 trustees. The most frequently used styles were authoritative, democratic and affiliative, and those least used were coaching, commanding and pace-setting. The most frequently identified styles of leadership, using the Singh and Jampel's leadership model, were consensus management style (those who extensively consulted others but they do decide independently). The next highest used style was the Active manager one, which involves a balance on consultation and shared decision making whenever it is necessary.

Numerous factors may play a role in choosing a style of leadership. The above study conducted by Chapman, David and Karen( 2014:293) identified four themes that could determine the selection of leadership styles and these are: organisation, context, individual characteristics, and "style history". The culture of an organisation, potentially affected by external environment and senior management, could affect the style of leadership through: selecting a leader during placement with a distinctive leadership style, leaders in that organisation influencing a style choice, and prevailing context. The context in which the tasks are being performed can also affect the choice of styles. Nonetheless, individuals may vary in their age and experiences, thus, influencing the style of leadership they choose. "

Generally the following major themes, which potentially affect the choice of leadership styles, may emerge (Amanchukwu, Stanley and Ololube 2015:10-11).

- *Size of organisation*: the more an organisation becomes large and multifaceted; the higher the chances that decisions will be made at the center. In that case, a commanding type of leadership style may prevail. At the same time, as the growth

of organisations means that every problem may not be solved and decisions are most likely to be made at the senior management level.

- *Degree of interaction/communication*: the level and quality of interaction in each organisation may determine the styles of leadership exercised, especially the interaction needed among employees to accomplish tasks. Organisations may have open or closed systems depending on whether they share information and interact with the environment.
- *Personality of organisational members*: the characters and attributes of employees and leader(s) in an organisation may determine the styles of leadership. Some people may need a certain type of leadership style to react. Some people are proactive and want to engage in the organisation's decision-making process as well as prefer open and engaging types of leadership style; while others are reactive, and dependent on their leaders/colleagues. Leaders need to identify those who have a sense of direction and want to engage in decision making and those who need direction to accomplish their task
- *Goal congruence*: it refers to the degree to which an organisation's operations and activities are aligned with its goals. The extent of organisational goal congruence may warrant a specific type of leadership style adopted by top management.
- *Level of decision making*: the levels at which decisions are made may determine the styles of leadership. According to Weddle (2013), five levels of decision making exist. In level one, the leader makes decision alone and informs employees later; in level two, the leader gathers input from individuals and let everyone know the decisions. In level three, the leader gathers inputs from a team and makes the decision. In level four, the leader solicits information from the team, and using that information, makes the decision. Level four is called consensus building; in this level the leader is part of the team and votes for the decision until a middle ground is reached. Level five (consensus and delegation with criteria/constraints) signifies that the leader sets criteria/constraints for a decision to be made and the team will decide which is in harmony with the criteria/constraint.

## **2.2.3 Contemporary theories of leadership applicable to health sector**

### **2.2.3.1 Resonant leadership**

In today's complex health care setup, leaders need a relational type of leadership style. Resonant leadership emerged recently in the field of leadership and has been embraced

by scholars in health care leadership. It is defined as the “behavior of leaders who demonstrate a high level of emotional intelligence, are in tune with the emotions of those around them, use empathy and manage their own emotions effectively to build strong, trusting relationships and create a climate of optimism that inspires commitment” (Squires, Tourangeau, Laschinger and Doran 2010:916). Resonant leadership is unique from other type of leadership theories in that it emphasises on emotional intelligence. Therefore, resonant leadership is considered as one of the effective models in health care industry.

Resonant leaders demonstrate a high level of emotional intelligence. The concept of emotional intelligence is based on social and multiple intelligence theories (Luthans 2012 : 231-232). Daniel Goleman, made the theory of resonant leadership very popular after his seminal book on emotional intelligence. He defined emotional intelligence as “The capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships”(Boyatzis and Oosten 2003:3). Goleman also synthesized competencies that are being used by multiple researchers to test emotional intelligence in leaders. These competencies are categorised into personal and social competencies. There are two clusters of constructs under the personal competency and these are self-awareness and self-management clusters. The self-awareness cluster, on the one hand, includes emotional self-awareness, accurate self-assessment and self-confidence. In addition, the self-management cluster includes adaptability, emotional self-control, initiative, achievement orientation, trustworthiness and optimism. On the other hand, social competency encompasses the social awareness and relation management clusters. The social awareness cluster includes empathy, service orientation and organisation awareness; whereas the relation management cluster includes inspirational leadership, developing others, being a change catalyst, conflict management, influence and teamwork and collaboration (Boyatzis and Oosten 2003:4).

Many empirical studies are emerging in the field of health care, especially in the area of nursing leadership, which tested resonant leadership along multiple outcome variables in health. The variables used in such tests include patient satisfaction and health workers satisfaction, work empowerment and patient safety culture. Thus, a study by(Laschinger,Wong, Cummings and Grau( 2014:11) demonstrates that resonant leadership has a significant, direct and positive relationship with nurse’s workplace

empowerment and job satisfaction. This finding is also reaffirmed by Bawafaa, Wong and Laschinger (2015:617) in their observation that a resonant relationship had effect on nurses' structural empowerment and job satisfaction. Squires *et al* (2010:921) also note that resonant leadership has significant positive nurse leader relationship with nursing staff, and this in turn improves patient safety climate.

The evidence from empirical data suggests that health care administrators should possess competencies of emotional intelligence in order for them to be effective. Freshman and Rubino (2002: 8) assert that it is time to realign and impart emotional intelligence skills in health care administrators or recruit those who have already developed for such skills. Nonetheless, emotional intelligence is not without controversy. Critics such as Cherniss (2010:111) identified three areas: conflicting models and definitions; the need for better assessment and measurement techniques; and the significance of emotional intelligence, as a predictor of important organisational outcomes such as leader effectiveness.

### **2.2.3.2 Servant leadership**

The first man who introduced servant leadership in the field of leadership is Robert Greenleaf in his 1977 seminal work, "The Servant as Leader". He stated that, "The servant leader is servant first... it begins with the natural feeling that one wants to serve, to serve first (Greenleaf 1977:7). Greenleaf underlined that a servant leader's precedence is the interest of his/her followers unlike the other leadership theories in which organisational goals come first. Followers trust their servant leaders as they are person-centered and this helps to unleash the potential follower to help the organisation to accomplish its goals (Greenleaf 1998: 45).

Furthermore, servant leaders give respect and value each individual follower. They consider each follower as deserving respect and love, and value the uniqueness of each follower. Servant leaders also promote a learning organisation by enhancing individual autonomy, personal growth and well-being (Dierendonck 2011:1231).

It should be noted that Greenleaf did not give a definition of servant leadership. However, other scholars gave their own. For instance, Spears identified 10 essential characteristics of servant leaders (Rachmawati and Lantu 2014:390). These essential characteristics are: (1) listening, emphasising the importance of communication and seeking to identify the will of the people; (2) empathy, understanding others and accepting how and what

they are; (3) healing and the ability to help make whole; (4) awareness and being awake; (5) persuasion and seeking to influence others relying on arguments not on positional power; (6) conceptualisation, thinking beyond the present-day need and stretching it into a possible future; (7) foresight, foreseeing outcomes of situations and working with intuition; (8) stewardship, holding something in trust and serving the needs of others; (9) commitment to the growth of people, nurturing the personal, professional, and spiritual growth of others; (10) building community, emphasising the centrality of local communities in a persons' life. In addition, Dierendonck (2011:1233-1234) identified six major characteristics of servant leaders that are picked by their followers and conceptualised servant leadership as an antecedent and outcome of these characteristics. Thus, servant leaders empower and develop followers, show humility; are authentic, accept people for who they are, provide direction and are stewards who work for the good of the whole. Each of these qualities is explained below:

- a. *Empower and develop followers*: this involves motivating people to build confidence and take responsibility. Followers will take more accountability and self-directed decision making and share information in an environment where leadership empowering behavior prevails. In addition, these leaders will delegate more and coach their followers to develop skills and grow (Klerk and Stander 2014:29). The six dimension of leader empowerment are: delegation of authority; accountability of outcomes; self-directing decision making; information sharing; skill development and coaching for innovative performance (Klerk and Stander2014:30). Leadership empowering behavior results in improved employee empowerment, work engagement and decreases turnover intention (Albrecht and Andreetta, 2011:230; Mendes and Stander 2011:8).
- b. *Humility*: the characteristic refers to the ability to put one's own accomplishments and talents in a proper perspective (Davis, Worthington and Hook 2010:244). Servant leaders value the contribution of other employees highly, as a result, they concede their interest and support their followers to contribute towards common goals. Humility is also about modesty: a servant-leader retreats into the background when a task has been successfully accomplished (Dierendonck 2011:1233).
- c. *Authenticity*: it involves expressing oneself by reflecting on the inner self, in consistent with one's inner emotions and thoughts. It is also about becoming in harmony with the generally perceived moral code and thus, reflects integrity.

Servant leaders show this character by keeping their promise, making themselves visible in the organisation, and exhibiting honesty and vulnerability (Dierendonck 2011:1233).

- d. *Interpersonal acceptance*: the characteristic relates to the ability to understand and experience the feelings of others, where people are coming from and the ability to let go of perceived wrongdoings and not carry a grudge into other situations. Servant leaders empathetically tolerate followers who face challenges, and make offences and mistakes. They also develop the cognitive skills to understand the psychological aspect of other people and experience compassion, warmth and feelings of forgiveness. Thus, servant leaders create a trusted and tolerating environment such that followers know that they will not be rejected if they make mistakes (Dierendonck 2011:1234).
- e. *Provide direction*: they ensure that people know what is expected of them. Servant leaders draw on followers' abilities, needs and input to grant the right degree of accountability and responsibility (Dierendonck 2011:1234).
- f. *Stewardship*: the willingness to take responsibility for the larger institution and to go for service instead of control and self-interest. Servant leaders set themselves as role models and stimulate others to go along with the common goals of the organisation. Thus, stewardship is closely related with social responsibility, loyalty and teamwork (Dierendonck 2011:1234).

The motivation to lead and serve is the uniqueness of servant leadership. The influence on the individual leader-follower relationship and on the "general psychological environment" of the organisation or team results in three levels of influence on the employer. Dierendonck (2011:1143) notes that the influence occurs at the individual level in the form of self-actualisation, positive job attitudes and increased performance; at team level there will be an enhancement of team accomplishment; and on organisation level the influence manifests as a stronger focus on sustainability and corporate social responsibility, CSR.

There is need to determine the factors that motivate one to serve and lead at the same time. The view servant leaders adopt towards power is different. Russell (2001:78-80) notes that the place of values in leadership is controversial and asserts further that servant leaders have internalised values such as honesty, integrity, fairness and justice, which are the bases of their prevailing behavior. A servant leader exhibits self-

determination in their actions. Nevertheless, a self-determined person should fulfill three psychological innate needs, which are feeling competent, feeling connected to others, and feeling autonomous. A satisfaction of these needs leads to enhanced self-motivation and mental health. Therefore, a self-determined person does not exert power to control and direct, but instead, use their personal resources to build a positive and strong relationship and help followers to develop self-determination (Dierendonck 2011:1144).

Health workers could employ the ethical and moral aspect of servant leadership to improve patients' physical, emotional and financial needs. Servant leader's characteristics, such as listening, empathy, awareness, healing and persuasion, could help to improve the health care provider-patient relationships and ultimately build trust among the two parties. These skills of servant leadership overlap with patient centered communication. Patient centered communication improves patient satisfaction and adherence and ultimately leads to more positive patient outcomes. Therefore, servant leaders, in health care, can motivate individual health workers to commit to working as a team, which values and prioritises the interest of patients.

There exist limited empirical studies focusing on the relationship between servant leadership and health care outcome. A study done in Iceland shows that perceptions of servant leadership among nurses and their job satisfaction is significantly related with humility, empowerment, accountability and authenticities, which are characteristics corresponding to servant leadership (Gunnarsdottir 2014:54). In addition, Jenkins and Stewart (2010:54 ) show that a high servant leader orientation is associated with higher nurse job satisfaction scores while low servant leader orientation is associated with lower nurse job satisfaction scores.

#### *2.2.3.2.1 Compassion and servant leadership*

The Health Sector Transformation Plan of Ethiopia 2015/16-2019/20, has set out four transformational agendas, which the Ministry of Health has given due emphasis in order to achieve the ambitious targets of the transformation plan. One of the transformation agenda items that is given due emphasis is about producing and developing a caring respectful and compassionate health force (Ministry of Health 2015b:116-119). The Ethiopian Ministry of Health developed a training manual on compassionate respectful and caring health professionals for its health workforce. Hence, the health care leadership should show compassion for health care professionals that is why one of the five transformation agendas address this issue (Ministry of Health 2017a:1-154).

Compassion is defined as “sympathetic consciousness of others' distress together with a desire to alleviate it “(Merriam-Webster dictionary 2017). Attributes of compassion includes: a deep feeling of connectedness with the experience of human suffering that requires a personal knowing of the suffering of others, evokes a moral response to the recognised suffering, and leads to caring that brings comfort to the sufferer (Peters 2006:39). In addition, Compassionate love is defined by Sprecher and Fehr (2005:630) as “an attitude toward other(s), either close or strangers or all of humanity; containing feelings, cognitions, and behaviors that are focused on caring, concern, tenderness, and an orientation toward supporting, helping, and understanding the other(s), particularly when the other(s) is(are) perceived to be suffering or in need”. Compassionate love involves doing good out of kindness for the benefit of followers: not for the leader’s benefit nor for one to look good. Hence, the motivation to do good for followers arises from genuine concern (van Dierendonck and Patterson 2015 :121).

Unlike other leadership styles, servant leadership gives due concern for the needs of followers, while compassionate love is proposed as an underlying motivation for servant leadership. Compassionate love, which some authors mention as agape love, is the key tenet of the servant leadership theory. Agape love is the Greek term for moral love associated with doing the right thing at the right time and for the right reasons. This love is shown by leaders who consider each person as a total person with needs, wants and desires. In addition, compassionate love is harmonious with servant leadership in that servant leaders must have great love for the followers and be willing to learn the gifts and talents of each and every follower. Therefore, a leader that leads with compassionate love focuses first on the employee, then on the talent of the employee, and lastly on how this benefits the organisation (van Dierendonck and Patterson 2015:121). Ultimately, the relevance of elements such as compassion to health care is that compassion is one of the characteristics of patient centered care and the reality that health workers need to show compassion for their patients.

### **2.2.3.3 Leader member exchange (LMX) theory**

Individual leaders were the focus of most leadership literature in the past half century, and follower’s behavior/character was examined from the perspective of leader’s influences on followers. The type, quality and characteristic of relationships between a leader and subordinates take the central tenet in the LMX theory. The theory focuses on a distinctive leader and subordinate relationship called dyadic relationships(Gumbo

2015:8). In addition the LMX is defined as “the quality of exchange between a supervisor and an employee” (Walumbwa, Mayer, Wang, Wang, workman and Christensen 2011:224). Previously, the LMX theory was called vertical linkage theory owing to its focus on a reciprocal, one on one interaction between a leader and subordinates, which happens in a vertical dyad (Yukl 2010:235). The dyadic relationship in LMX is developed through time and the leader develops a differentiated response to each individual follower based on the exchange he/she expects from subordinates.

In addition, the quality of exchange relationship between the leader and a particular subordinate (dyad) in LMX is the basic unit of analysis (van Breukelen, Schyns and Blanc 2006:295). The main principle in LMX is that a leader will develop differentiated exchange relationships with subordinates and the quality of that relationship will determine the leader-member outcome. Therefore, leadership occurs when a leader and follower develop an effective relationship that has the potential to affect the leader member outcome (Avolio, Walumbwa and Weber 2009:433).

A high-quality exchange relationship is characterised by mutual trust, respect and loyalty. The quality of exchange relationships developed determines whether the work unit could be classified as “in group” and “out group”. “In group” subordinates are employees who develop high quality exchange relationships, and have a deep cooperation and communication with the leader. Whereas, “out-group” subordinates have a low quality exchange relationship and has superficial contacts with the leader (van Breukelen, Schyns and Blanc 2006:298). Therefore, reciprocity between leader and followers is the hall mark of this theory. In addition, high quality relations enable subordinates to deliver high performance and the leader, in turn, reciprocates by showing self-worth with the time and character of reciprocity being an indicator of the quality of relationships.

Low quality exchange relationships are characterised by a high immediacy (a narrow time frame in which favors have to be returned), high equivalence (an emphasis on equal value of exchanged commodities) and high self-interest (a focus on personal interests in the exchange process) (van Breukelen, Schyns and Blanc 2006:301). What then does the exchange specifically consist of? LMX is an exchange relationship between leaders and subordinates, which means that leaders may have a lot to offer by way of discretion latitude, amount and precision of information, influence on decisions, formal and informal support and attention, feedback, respect, recognition and rewards, attractive work assignments, and career opportunities, where subordinates may in return respond by

offering loyalty, commitment, and exerting effort for the leader personally, the team and organisation as a whole (Graen, Scandura and Graen 1986:488-89).

Both leaders and subordinates contribute towards the exchange of goods and must acknowledge and value the other party's contribution. The extent of good communication between the two parties and the quality of exchange will strengthen the acknowledgment and value of the obligation of both parties and whether the two are in agreement (disagreement) about their obligation to contribute (Tekleab and Taylor 2003:588).

Certain behaviors of leaders, followers and interpersonal relationships are considered as antecedents in LMX, which are factors and characteristics that could affect the quality of leader member exchanges (Dulebohn, Bommer, Liden, Brouer and Ferris 2012:1717). These antecedents affect the quality of leader member exchange relationships resulting in a favorable/unfavorable outcome. Follower behaviors (as antecedents) that influence the LMX include the "big five" personality factors (conscientiousness, extraversion, agreeableness, openness, and neuroticism), locus of control, positive affectivity (PA), and negative affectivity. Conscientiousness (member achievement and dependability are two of its domains) strongly predict job performance. Extraverts (composed of sociability and ambition), unlike introverts, are more likely to seek for interactions and interpersonal relationships with others. Therefore, extraverts will more likely seek for high interaction with leaders and this will result in high quality of LMX. Agreeableness is related to cooperation and adaptive social, helping, and reciprocity behavior. Openness to experience, which has multiple traits such as imaginative, creative, intelligent, and broad-minded behavior, is more likely to pursue and accept expanded roles based on social exchange. Neurotic individuals, persons prone to anger, anxiety, depression, embarrassment, worry and insecurity, have limited social competence and limited ability to establish long term relationships that require commitment, trust and social skills (Pau 2014:20).

Individuals with internal control orientation (internal locus of control) are of the view that they can control their work setting and influence their interactions with others more than those with an external control orientation. Therefore, internals are more likely to strive to control their environment and engage in initiative-based behaviors, such as feedback seeking, negotiation, and increased communication, rather than being passive and highly correlated with LMX quality (Martin, Thomas, Charles, Epitropaqi and Mcnamara 2005:144). Positive affectivity (PA) refers to the extent to which individuals feel positive,

enthusiastic, engaged and optimistic. Leaders are highly likely to equate high PA subordinates with engagement and motivation, and leaders may delegate these people for favorable tasks and subsequently demonstrate high quality LMX relationships with such people (Dulebohn *et al.*, 2012:1720).

There are antecedent behaviors, perceptions, and personality factors related to leaders that affect the quality of LMX relationships. These antecedent behaviours, perceptions, and personality factors include leader's expectation of followers, contingent reward behavior, transformational leadership, extraversion, and agreeableness (Pau, 2014:20). A leader's contingent reward behaviours, which involve providing feedback, clarification and recognition for accomplishments, are more likely to compel followers to feel a sense of obligation to their leaders and this results in high quality relations with leaders. Therefore, leaders with a transformational leadership style will create positive and high quality LMX relationships with followers. The leader's expectation of followers will positively affect the quality of LMX relationships as well. In addition, two of a leader's personality characteristics (extroversion and agreeableness) have a positive and consistent relationship with high quality LMX (Dulebohn *et al.*, 2012:1722).

In addition, the interpersonal relationship between the leader and follower can affect the quality of LMX. That is factors such as perceived similarity, affect/liking, ingratiation (supervisor reported), self-promotion, assertiveness, and leader trust have an impact on the nature of the relationship. Other contextual factors, such as the LMX measure used, work setting, the participant's location, and cultural dimensions, may moderate the relationship between the influence of antecedent factors and LMX (Dulebohn *et al.*, 2012:1723).

It should be noted that the LMX theory is fairly investigated in health care. A cross sectional study done in Sweden on two nonprofit hospitals and 240 hospital employees, shows that there is significant and positive correlation between high quality LMX and good psychosocial work conditions experienced by employees: LMX and domain of interpersonal relations (correlation coefficient  $r$  is between 0.35-0.51 coefficient,  $P < 0.001$ ); between the LMX item affect and rewards/recognition ( $r = 0.51$ ,  $p < 0.001$ ), role clarity ( $r = 0.47$ ,  $p < 0.001$ ) and predictability ( $r = 0.47$ ,  $p < 0.001$ ) respectively, and the LMX item loyalty and rewards/recognition ( $r = 0.48$ ,  $p < 0.001$ ) (Hanse 2014:3). Pau (2014:61) also conducted a study on an acute care hospital in Canada that considered responses made by 135 nurses. The study shows a positive correlation between overall leader

member exchange score and safety culture ( $r=0.64$ ,  $p<0.001$ ). Finally, Laschinger, Purdy and Almost (2007:221-229) demonstrate that the LMX quality has a positive and direct effect on structural empowerment ( $\beta=0.43$ ), which in turn, has a positive direct effect on job satisfaction ( $\beta=0.37$ ).

#### **2.2.3.4 Complexity leadership theory (CLT)**

The traditional and bureaucratic leadership practice (top down leadership hierarchy) is commonly ubiquitous in the health care industry and these leads to various challenges in the sector (Hanson and Ford 2010:6588). Rising costs, and inefficient system, increasing complexity and an ever increasing evidence gap prevailing in the sector are the major health quality impinging factors (Institute of Medicine 2011:50-51). Most of the leadership frameworks practiced in health care are linked with the bureaucratic leadership management theory, which is characterised by an authoritarian hierarchy and control. The underlying logic of century old bureaucratic management principles is no longer suitable for the current challenges that leaders and managers in health care are facing. The mere restructuring of organisation parts, or increasing the individual leadership or professional skill could not result in the desired change in health care (Hanson and Ford 2010:6588). Hence, the current health care sector's encounter of huge challenges.

The health care environment is so chaotic that health care executives find it difficult to forecast the future. The executives consider the currently available management tools, such as long-range planning and strategic thinking, and leadership training with suspicion. They tried to implement the management tools with utmost dedication, but in return garner less. The emergence of a new theory (complexity science theory) offers a new perspective for health care executives. This theory proposes that organisations can adapt constantly while leaders and managers should adapt to new perspectives and competencies, and should view the world through complexity lenses (Burns 2001:474). Thus, based on concepts of complex adaptive systems, CLT examines leadership as a process involving networks of highly interactive and interdependent members, which leads to collaboration, creativity, innovation and other outcomes needed for organisational adaptation. In addition, Complex adaptive systems (CAS) are interdependent networks, bonded in a cooperative dynamic by a common goal, need or outlook. Finally, complex adaptive systems are the basic unit of analysis in the complex leadership theory (Uhl-Bien, Marion and McKelvey 2007:299).

What is wrong with traditional leadership theory and models and why we propose complexity leadership? Three basic assumptions in traditional leadership theory are problematic, as outline below (Weberg 2012:269-271).

- a. *Leaders as linear thinkers*: linear models assume for a certain input in the system, a proportional output will be garnered. This assumption neglects the organisation system's effective adaptation, innovation and change through relationship building, non-linear process and co evolution. A focus on linear systems require management and not leadership with management applying a known solution to a known problem, whereas leadership is meant for a systematic search for a way out for unpredictable problems and solutions (Uhl-Bien, Marion and McKelvey 2007:303).
- b. *Organisational culture unawareness*: leaders need to work towards the formal and informal culture. Change in the formal culture will appear if change in the informal culture mount and overtake the stability in the formal culture. Traditional leaders may not access the network of informal culture to drive an innovation.
- c. *Unprepared for innovation*: health care workers need to have competency on innovation. According to the NHS England, innovation is about doing things differently or doing different things to achieve large gains in performance (Kaya, Turan and Aydin 2015:1675). Traditional leaders assume that followers lack motivation and that control must be in place to meet the needs of the organisation, therefore, these leaders tend to restrict followers to innovate.

Clancy, Effken and Pesut (2008:252) outline the characteristics of complex adaptive systems as:

- *Self-organisation*: the emergence of higher order behaviour from mutually interacting and interrelated parts without the guidance or influence of an outside source.
- *Emergence*: higher order system behaviour resulting from self-organisation of system components.
- *Non-linearity*: when stimulus and response are unequal, system behaviour can be described as nonlinear. Hidden feedback loops nested in complex systems can generate nonlinear behaviour. Non-linear behaviour can produce multiple outputs to the same inputs and is thus considered less predictable than linear behaviour.

- *Chaos*: the behaviour of nonlinear dynamic systems may appear random when, in fact, it is not. Chaos describes a class of systems in which small changes to the initial conditions of the system create deterministic (non-random) but very complex behaviour.
- *Turbulence*: characterised by chaotic random behaviour.

Uhl-Bien, Marion and McKelvey (2007:305-314) proposed an overarching framework for complex leadership theory. This framework identifies the three functions, administrative, adaptive and enabling of leadership in the complexity leadership theory:

- Administrative leadership*: it involves individuals' or groups' activities in formal organisational structures focusing on tasks assigned as prescribed by the organisation in an effective and efficient way. Administrative leadership performs formal tasks, plans, formulates visions, searches for and allocate resources, engages in crises and conflict management, and implements the organisational strategy. Its focus is on alignment and control of customary to hierarchal and bureaucratic management.
- Adaptive leadership*: interacts and adjusts actions, which are adaptive, creative and learning, to relieve the tension and enable organisations to self-sustain This adaptive action of adaptive leadership can occur at places such as, in boardroom or in workgroups of line workers, in the organization. Hence, adaptive leadership is an informal emergent dynamic that occurs among interactive agents (CAS) and is not an act of authority.
- Enabling leadership*: it is situated between adaptive leadership and administrative leadership. Administrative leadership pays due attention to enabling the adaptive leadership to function if that organisation values Knowledge creation emanates from an adaptive leadership while an enabling leadership will work towards the achievement of this job. Enabling leadership fosters adaptive leadership to function and smoothen the entanglement between the bureaucratic (administrative leadership) and emergent (adaptive leadership) functions of the organisation. Entanglement management can comprise two activities and these are appropriately placed adaptive leadership by creating appropriate organisational conditions, and enhancing the effectiveness of adaptive leadership to foster innovation and adaptability. This will enable knowledge and creativity to flow from the adaptive to administrative structure. Therefore, an enabling leadership can

occur at any place in the organisation but the nature and role could vary depending on the hierarchy of the organisation.

### **2.2.3.5 Authentic leadership**

A new type of leadership is desperately needed, which cultivates hope, confidence and optimism, in this rapidly changing world. The type of leadership that is needed is one that can create a resilient organisation and help people to search for meaning and self-awareness; and a leadership that will build confidence for all stakeholders. Scandals and management malpractices of gigantic corporations and the urge from the public to control these corporation is one of the pushing factor for the emergence of authentic leadership (Walumbwa, Avolio, Gardner, Wernsing and Petrosen 2008:90).

The Gallup institute of leadership summit, held in Omaha, Nebraska in June 2004, sought to create a dialogue among leadership scholars and practitioners from diverse domains , and to stimulate original insights and basic theory on authentic leadership (Avolio and Gardner 2005:316). Nonetheless, authentic leadership is defined as “A process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering positive self-development. The authentic leader is confident, hopeful, optimistic, resilient, transparent, moral/ethical, future-oriented, and gives priority to developing associates to be leaders” (Luthans 2012:433). Thus, authentic leadership evolved from positive psychology and its main concept comes from different leadership theories that include, charismatic, transformational, visionary, ethical, transactional, directive and participatory leadership theories (Neider and Schriesheim 2011:1146).

Authentic leaders use their natural abilities, but they recognise their limitations and try to develop them. Their self-awareness is very high and their leadership style is driven by purpose, meaning and value. In addition, their principles are enduring despite being tested by severe challenges. Authentic leaders also create lasting relationships with followers and earn trust from them owing to their observed sticking to their principles. Therefore authentic leaders are always ready to learn and change as they believe that leadership skills are earned through a life time (Sajjadi 2014:184).

Positive psychological capacities and positive organisational contexts are the antecedent to positive self-development such as self-awareness and self-regulation behaviours, which in turn result in authentic leadership (Luthans 2012:434). Positive psychological capacities of confidence, optimism, hope and resiliency are personal resources of authentic leader (Avolio and Gardner 2005:322). The realisation of this positive psychological capacities in a positive organisational context characterised by highly developed strength-based organisations, self-awareness and self-regulatory behaviour of the leader will result in the flourishing of a positive self-development (Luthans 2012:434). Finally, a positive moral perspective that is characterised by moral capacity, efficacy, courage and resiliency, is the defining feature, but not the antecedent or follow through, of authentic leaders (Avolio and Gardner 2005:324).

Walumbwa *et al* (2008:95) developed four dimensions of authentic leadership construct and these are:

- Self-awareness: “It refers to showing an understanding of one’s strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being cognizant of one’s impact on other people”.
- Relational transparency: refers to “presenting one’s authentic self to others”, as opposed to a fake or distorted self.
- Balanced processing: those with this character will process the data objectively before reaching a balanced decision.
- Internalised moral perspective: it is an internalised and integrated form of self-regulation. Internal moral standards and values guide principles rather than group, organisational and societal pressures.

Empirical studies on authentic leadership’s influence on work outcomes and organizational performance are emerging. A systematic review on the antecedent mediator and outcomes of authentic leadership in health care is summarised in the following points (Alilyyani 2017:35-44):

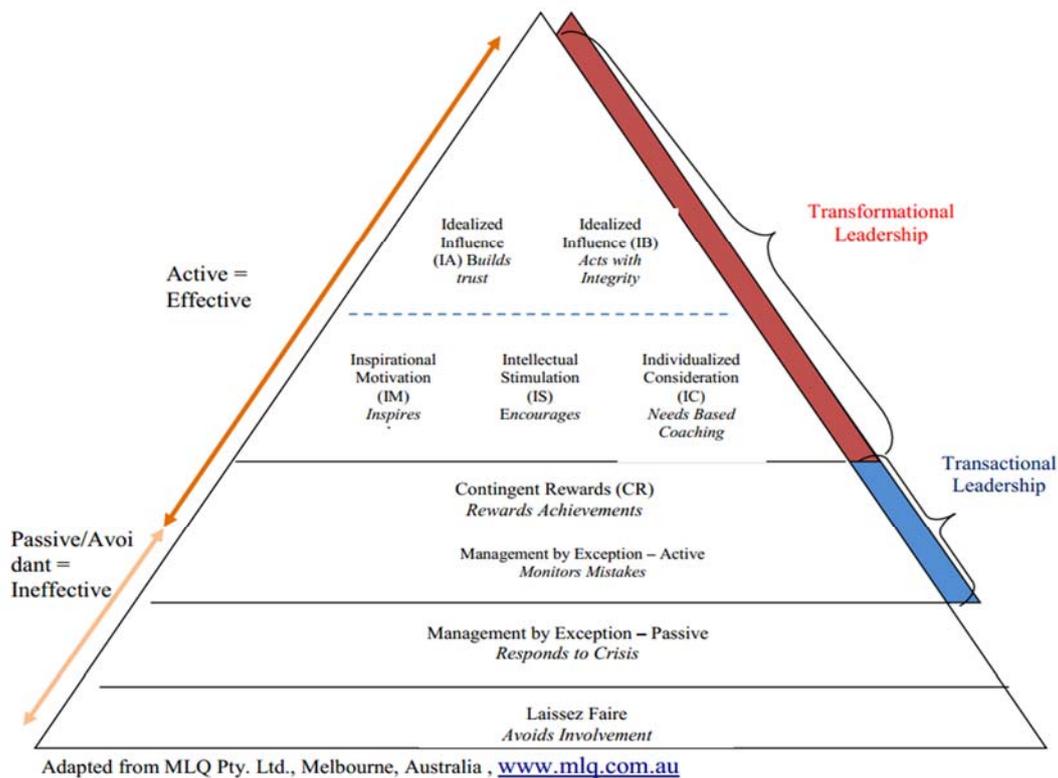
- Authentic leadership (AL) is directly correlated with followers’ personal psychological states (psychological capital, identification, and trust).
- Authentic leadership significantly and positively affects the job satisfaction and work engagement of followers. However, it has no effect on job turnover intention.

- AL has a significant and positive impact on structural empowerment. Negative work place behaviours are negatively and significantly associated with AL: incivility in three studies, and bullying in four studies.
- AL is significantly and positively related with inter-professional collaboration.
- Practice environment, which includes the professional practice environment, nursing professional practice culture and decisional involvement, is affected by the practice of authentic leadership.
- AL is significantly and negatively associated with burnout and cynicism.
- Wellbeing (vitality) is positively and significantly affected by AL.
- AL is significantly and positively associated with followership and organisational citizenship behaviour.
- AL has a direct relationship with positive patient outcome.

## **2.2.4 Full range leadership model**

### ***2.2.4.1 Introduction to full range leadership model***

The full range leadership model consists of behaviours of leadership arising from non-leadership (as codified by laissez faire leadership style) to the more effective leadership style of transformational leadership as a hierarchy. However, transactional leadership style reflected through contingent reward, management by exception active and passive and Laissez faire leadership style still exist in between the two extremes. This model was first formulated by Bass and Avolio (Kirkbride 2006:23; Salter, Harris and McCormack 2014:2). Each component of the full range model is outlined one by one later.



**Figure 2-3: The picture depicts the range of leadership style from Transformational leadership to Laissez-Faire leadership style**

Nine factors, exist in the three leadership behaviors, transformational, transactional and laissez-fair leadership. Among the nine, five factors are for transformational leadership. These five factors are: (1) idealised influence (attributed); (2) idealised influence (behaviour); (3) inspirational motivation; (4) intellectual stimulation; and (5) individualized consideration. The transactional leadership comprises three characters: (1) contingent reward; (2) management- by- exception active; and (3) management-by exception-passive. The remaining one (laissez-faire leadership) is a state of non-leadership ,and in this, there is no transaction (Antonakis and House 2013:9-10).

#### **2.2.4.2 Transformational leadership**

Transformational leadership occurs when a leader and followers share common visions, and necessary resources are provided by a leader for her/his followers to attain their personal potential. This theory proposes that leaders increase followers' aspirations and stimulate their higher-order values (e.g., altruism) such that followers end up identifying

with the leader and his/her vision, feeling better about their work, and ultimately performing beyond simple transactions and base expectations.

Transformational leaders are endowed with vision and charisma. They are also endowed with unique problem-solving skills and attend to the needs of individual employees to “transform” the organisation and individual employees. They “transform” the organisation and employees by: raising the followers’ levels of consciousness about the importance and value of specified and idealised goals; getting followers to transcend their own self-interest for the sake of the team or organisation; and moving followers to address higher level needs (Higgins 2015:16).

Trust, the central component of this theory, is the mediator that leads the effectiveness of transformational leaders (McKee 2013:2). Conchie and Donald (2009:137-147) examine the relationship between safety specific trust, with trust defined as “an individual’s willingness to rely on the leader based on the expectation that he/she will act, or intend to act safely”, and found out that safety specific trust mediates the relationship between safety specific transformational leadership (a transformational leader who gives due concern for safety environment) and safety citizenship behaviors such as raising concerns, helping others with safety activities and reporting safety violations. Another study by Sarwar and Mumtaz (2017:120) conducted on the banking sector shows that trust in leaders is a mediator between transformational leadership and organisational identification (“the employee’s feelings as considering themselves the organization’s part, adopting the values of organization and feeling self-importance in membership of his organization”). Thus, transformational leaders encourage dialogue and communication among team members and possess open, honest and timely communication (Gumbo 2015:4).

Transformational leadership, in full range leadership model, comprises the following five factors or behaviors (Antonakis and House, 2013:9-10; Higgins 2015:17-18):

1. *Idealised influence-attribute (IA)*: this charismatic quality of leaders exhibits a “strong sense of ideals and ethics” and is attributed by followers to their leader: this is how the follower perceives their leader’s power, confidence and “transcendent ideals”. Followers are of the view that the leader will put his/her interest second to the interest of others, and so, this quality will help the leaders to garner trust from followers with the followers making the leader their role model.

2. *Idealised influence-behaviours (IB)*: underlying principles, values and ethics are the main bases for the leader's conduct here. Their ethical and moral orientation as well as the extent to which they behave, are important as well and they use "Walk the talk" is their slogan.
3. *Inspirational motivation (IM)*: previously seemingly unreachable goals are possible to attain as the leader will inspire and motivate followers by raising their expectations and building their confidence. Leaders here apply different personal stories, rituals, symbolism and other strategies to impart meaning in their work and envision ideal future states.
4. *Intellectual stimulation (IS)*: a leader encourages his/her followers to question and break the status quo and their assumptions, and act in an innovative and creative way to search for a solution for the problem at hand. The leader considers the commission of mistakes as opportunities for learning and hold a non-punitive attitude for the mistake made.
5. *Individual consideration (IC)*: the leader's consideration is for individual needs and wants. The leader works as a personal counselor for that individual follower: they coach and mentor the individual followers to excel and create a favorable environment for learning and development.

#### **2.2.4.3 Transactional leadership**

It is one of the construct in full range leadership model. It contains two constructs and these are transactional contingent reward and management by exception-active (Rowold 2005:6). The follower executes a specific set of objectives and the leader, in return, reciprocates with rewards (the rewards could be material or psychological). This, even if it is the "lower order" leadership along continuum of full range leadership model, next to transformational leadership, is a necessary quality that is exhibited by transformational leadership.

Unlike with the transformational leadership approach, the transactional leadership approach focuses more on extrinsic rewards. Transactional leaders are most commonly reactive and a cultural participant focused on the contingency-management approach with self-interest driving decisions, whereas, transformational leaders are proactive and cultural change agents who seek achievement by values driven by group interests and also individuals who are inspiring and stimulating (Smith 2015:229).

1. *Contingent reward*: based on accomplished set goals, objectives and targets. It is the classical transactional style. Rewards could include both financial and non-financial with the non-financial reward being tangible ones such as an extra holiday, preferred work or time off) and less tangible being recognition, praise and visibility (Kirkbride 2006:26).
2. *Management by exception-active*: the leader monitors deviations, watches for it and acts proactively before the deviation happens. It is a negative transaction in the sense that the leader anticipates only the deviation and acts up on it before it has effects (Antonakis and House 2013:10).

#### **2.2.4.4 Ineffective leadership**

Ineffective leadership is located below the continuum of full range leadership model and encompasses management by exception- passive and laissez faire leadership (Judge and Piccolo 2004:757). These leaders generally do not clarify problems and wait for the problems to happen before they act: they are “crisis managers” (Antonakis and House 2013:10):

1. *Management by exception-passive*: it is like management by exception-passive; but these leaders are reactionary (they wait for the deviation to happen before they take measures).
2. *Laissez-faire leadership*: here there is no transaction between the leader and followers. Leaders do not take any action or decision and they fail to assume their leadership authority and responsibility (practically there is absence of leadership).

#### **2.2.4.5 Augmentation effect**

Both transactional and transformational leadership styles are necessary for a leader to accomplish the job, as noted by Bass and Avolio (Higgins 2015:19). An effective leader should clarify expectations and transacts with his/her followers to get beyond the expected. It is necessary to motivate followers, boost their efficiency and effectiveness in order to achieve what is previously impossible to do. Therefore, transformational leadership augments transactional leadership, which is at the base, and garners the maximum possible results. Transactional leadership clarifies expectations, goals and objectives; whereas, transformational leadership aims at the development of followers and motivates them to excel, think and act beyond what is possible (Judge and Piccolo 2004:756).

Judge and Piccolo (2004:762) tested the augmentation effect of transformational leadership by conducting a meta-analysis of 87 studies. Transformational leadership predicts leadership criteria (follower job satisfaction, follower satisfaction with leader, follower motivation, group or organization performance, and leader effectiveness).

#### **2.2.4.6 Transformational leadership and outcomes**

Judge and Piccolo (2004:759) conducted a meta-analysis of 87 studies (68 journal articles, 18 dissertations and 1 unpublished data set) on full range leadership model. They measured the correlation between components of full range leadership (transformational, transactional, and laissez-faire leadership) and important leadership criteria across multiple sectors. These leadership criteria are: (a) follower job satisfaction, (b) follower leader satisfaction, (c) follower motivation, (d) leader job performance, (e) group or organisation performance, and (f) rated leader effectiveness. They found that transformational leadership ( $\bar{\rho}=.44$ ) was followed by contingent reward ( $\bar{\rho}=.39$ ), which shows the highest overall validity, while laissez-faire leadership exhibits moderate negative correlation with leadership criteria ( $\bar{\rho} = -.37$ ).

Transformational and contingent reward shows the most consistent and strongest correlations among all the six leadership criteria mentioned above. An examination of individual leadership criteria and contingent reward shows that, transformational leadership exhibits higher validity for follower satisfaction for leader ( $\bar{\rho}_{T=}.71$  vs.  $\bar{\rho}_{CR}=.55$ ,  $t=5.46$ ,  $p<.01$ ) and leader effectiveness ( $\bar{\rho}_{T=}.64$  vs.  $\bar{\rho}_{CR}=.55$ ,  $t=2.67$ ,  $p<.01$ ) than contingent reward. Contingent reward also shows significant higher validity for follower job satisfaction ( $\bar{\rho}_{T=}.58$  vs.  $\bar{\rho}_{CR}=.64$ ,  $t=-2.21$ ,  $p<.05$ ) and leader job performance ( $\bar{\rho}_{T=}.27$  vs.  $\bar{\rho}_{CR}=.45$ ,  $t=-3.25$ ,  $p<.05$ ) than transformational leadership. In addition, the difference between follower motivation, and group or organisation performance is not statistically significant for transformational leadership and contingent reward construct. Transformational leadership shows higher and consistent correlation with job satisfaction ( $\bar{\rho}=.58$ ), while follower satisfaction with leader ( $\bar{\rho}=.71$ ) and follower motivation stood at ( $\bar{\rho}=.53$ ) compared to with leader job performance ( $\bar{\rho}=.27$ ) and group or organisation performance ( $\bar{\rho}=.23$ ). This signifies that transformational leadership is more useful for followers than influencing group or leader performance (Judge and Piccolo 2004:759-

760). This meta-analysis shows, although transformational and contingent reward leadership are effective in all sectors, contingent reward appears to have higher validity measure in business setting ( $\bar{p}=.51$ ) than in college ( $\bar{p}=.19$ ), the military ( $\bar{p}=.32$ ), or the public sector ( $\bar{p}=.27$ ).

Numerous studies on health care setting demonstrate that transformational leadership has an association with quality of health care, general employees' job satisfaction and empowerment, and patient safety culture. West *et al.* (2015:10) shows being transformational leader is strongly associated with staff satisfaction, individual and team performance, organisational climate or turnover intention. Another study conducted in Saud Arabia's public hospitals shows that a significant positive correlation exists between transformational leadership ( $\bar{p}=.368$ ,  $p<.01$ ) and hospital quality management practice, whereas transactional leadership has a moderate negative correlation (-.432) (Alharbi and Yusoff 2012:64). In addition, a study carried out in the United Arab Emirates shows that all dimensions of transformational leadership have a strong positive relationship with hospital service quality (Jabnoun and Rasasi 2005:77). Managers and senior leaders of hospitals, who possess transformational leadership styles, achieve better patient safety culture, initiatives and outcomes (McFadden, Henagan and Gowen 2009:399; Management.org 2015:1-2).

Finally, Barlow (2013:1-291) conducted a meta-analysis study that examined the correlation between transformational leadership and nursing personnel organisational commitment (OC), job satisfaction (JS), and turnover intentions (TI). The review included 28 studies (15 journal articles and 13 dissertation/thesis) and the pooled effect size estimates demonstrate a statistically significant effect size relationship between transformational leadership and organisation commitment ( $k = 14$ ,  $MWES = .292$ ), job satisfaction ( $k = 22$ ,  $MWES = .596$ ), and turnover intention ( $k = 5$ ,  $MWES = -.307$ ).

#### **2.2.4.7 Transformational leadership in health care**

Effective leadership in health care emphasises safe, high quality and compassionate care. The leadership builds a health care system which is patient centered and pays attention to patient experience, concerns, needs and feedback (whether positive or negative). Effective leaders build a resilient health system. Effective leaders are expected to promote participation and involvement in health care. They must ensure that the staff

'voice' is encouraged, heard and acted on across the organization and provide practical support for staff to innovate within safe boundaries(West *et al* 2015:2).

Many of the attributes of transformational leadership are considered as inputs for effective leadership. These attributes include trusting leader and follower relationships, awareness of self, context and the needs of others, inspiring others to adopt visions of the leader and high-performance expectation. A combination of transformational and transactional leadership is necessary in order to transform an organisation or a unit. Transformational leadership boosts or enhances the transaction made between leaders and followers to achieve the overall organisational goals. Transformational leadership in hospital setting amplifies the effect of transactional leadership to affect a health workers' job satisfaction, the organisation's patient safety culture and health workers' empowerment in a positive way. The influence of transformational leadership on these variables, by amplifying the transaction, will ultimately improve patients' perception of quality of health care: patient centeredness.

## **2.3 WORK PLACE EMPOWERMENT**

### **2.3.1 Introduction to Empowerment**

Scholars use the term empowerment to mean delegation or employee participation. Conger state that there are two constructs of empowerment and these are empowerment as a relational construct and empowerment as a motivational construct. Both constructs are explained below:

- *Empowerment as a relational construct:* it means a process of sharing power with subordinates. Power in this context refers to control over organisational resources owing to a leader's formal position and authority. The empowerment is achieved through decentralisation of decision making and delegation of authority. Management practices, such as management by objective, quality circles, and goal setting by subordinates, assist in the sharing of power and delegating of authority and ensure employee participation, which is considered as an empowerment process. However, the following questions remain with regards to the implementation of these management practices as a means to empower employees: does the sharing of authority and resources automatically empower employees? Through what psychological mechanisms do the sharing of authority and resources empower employees? Are participation and sharing of

organisational resources the only technique of empowerment? And, do sharing of resources, participation and delegation of authority equate to empowerment?

- *Empowerment as motivational construct*: in this case, empowerment is conceived as enabling. In contrast to the above construct (empowerment through delegation of authority and sharing of resources), empowerment here refers to “motivating through enhancing personal efficacy”. Empowerment, as a motivational construct, is assumed as “a process of enabling, rather than delegating”. Empowerment, as a motivational construct, is defined as “a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information”(Conger and Kanungo 1988:474). Removing feelings and factors leading to powerlessness is one of the major empowering strategies and tactics.

### **2.3.2 Structural empowerment**

Structural empowerment is “the enabling condition under which stable and continuous exchanges in information and resources among organizational participants are facilitated and sustained”(Mills and Ungsen 2003:145). Structural empowerment will maximise an effective exchange of employees investment capital with organisation and leadership needs to make sure that such exchanges are in congruent with organisational goals and performance (Mills and Ungsen 2003:145-147). Ultimately, structural empowerment is related to the presence of a “social structure”, both formal and informal, in the organisation that supports employees to accomplish their job effectively.

Kanter postulates that two empowerment structures exist in an organisation and these are the structure of opportunity and the structure of power (Laschinger, Gilbert, Smith and Leslie 2010:5-6). Accordingly, Kanter’s theory of structural empowerment has the following components (Cicolini, Comparcini and Simonetti 2014:856):

1. *Access to information*: refers to technical knowledge, data and expertise necessary to accomplish the job.
2. *Access to resources*: any inputs like financial, material, equipment and time to accomplish the organisation goals.
3. *Support*: this comes from supervisors, peers and subordinates in the form of feedback, guidance, and leadership.

4. *Access to opportunities*: enable the employees to grow, learn and advance in the organisation.

Access to this empowerment structure is further potentiated by formal and informal power system. Kantar defines power as getting things done by mobilising necessary resources, support and information. Formal power emanates from the discretion and flexibility of the job, whereas, informal power comes from a network an employee develops with others in the organisation (Wong and Laschinger 2013:949).

### **2.3.2.1 Structural empowerment and magnet hospitals**

Magnet hospital is the name given by The American Nurses Credentialing Centre's Magnet Recognition program (it is affiliate of American nurse association) for hospitals that attract and retain nurses by creating a favourable environment that values excellent nursing care and professional practice. Fourteen characteristics, called the "fourteen forces of magnetism", make the distinction between these magnet hospitals and non-magnet ones (Medscape 2007). These factors are: (1) Quality of nursing leadership (the leadership is visionary; (2) Dynamic and responsive organisational structure; (3) Participatory management style that empowers nurses at all levels; (4) Personnel policies and programs that are inclusive and flexible and with a benefit package that is competitive and considers work/life balance and carrier development ; (5) Professional models of care: it describes how nurses practice, collaborate and communicate; (6) Quality of care: nursing leadership is highly engaged ; (7) Quality improvement: available structure and process enable the measurement and improvement of quality of care; and nurses are at every level to engage in this endeavour; (8) consultation and resources: provision of adequate resources, support and opportunities for the utilisation of experts and advanced nursing practices; (9) Autonomy: based on nurses competence, professional practice and knowledge as they assess patients; (10) Community and the hospital; relationships are created with other health care organisations and community to improve their health- (11) Nurses as teachers; nurses practice and teach; (12) Image of nursing: the service provided by nurses are considered essential by other members of that hospital; (13) Interdisciplinary relationships: collegial working relationship between and among employees is highly valued in that organisation; and (14) Professional development is highly valued and supported by the organisation.

In 2008, The American Nurses Credentialing Centre revised the criteria of magnet hospitals in to five major themes by rearranging the 14 characteristics to fall in five major

themes. These themes are: transformational leadership; structural empowerment; exemplary professional practice, new knowledge, innovations and improvements; and empirical quality outcomes (Abdullah 2015:30).

The structure and practice environment of magnet hospital facilitates employees' structural empowerment. Nurses working in magnet hospitals have a better access to information and usually supported by the leadership of these hospitals. These nurses have better opportunities and access to information that will assist them to continually develop and improve the health care quality. The nurses are highly engaged, and their job highly valued by their colleagues and other staff in hospitals. In addition, the flat organisational structure observed in magnet hospitals facilitates formal power productivity (Kvist, Mäntynen, Turunen, Partanen, Miettinen, Wolf and Vehviläinen-Julkunen 2013:154).

### **2.3.3 Psychological empowerment**

Employees working in organisations that have a structurally empowering working condition will experience psychological empowerment. The psychological empowerment influences the employees' positive work behaviour and attitude leading to the achievement of a positive work place empowerment. Creating a working environment with high structural empowerment could be conceived as an antecedent to psychological empowerment as supported by numerous empirical studies (Laschinger, Finegan, Shamian and Wilk 2004: 536-538; Faulkner and Laschinger 2008:218; Wagner, Cummings, Smith, Olson, Anderson and Warren 2010 :457).

Spreitzer (1995:1444) notes that Psychological empowerment is a motivational construct that consists of four dimensions and these are:

1. *Meaning*: refers to the importance the person attaches to his/her job and its purpose. It is the congruence of his/her values, beliefs and behaviours towards the work place requirement.
2. *Competence*: refers to the capability or self-efficacy of an employee to accomplish his/her assigned task.
3. *Self-determination*: autonomy, self-initiation the individual has towards his/her job.
4. *Impact*: the degree to which the employee believes he/she can influence the course of the action and the outcome at work.

### **2.3.4 Outcomes of work place empowerment**

Much of the empirical researches on the health sector work place empowerment (both structural and psychological) are conducted on nurses. Cicolini, Comparcini and Simonetti (2014: 865) conducted a systematic literature review on the relationship between nurses' work place empowerment (both structural and psychological empowerment), and their job satisfaction. Twelve research articles were included in the systematic literature review and all the considered studies show a statistically significant correlation between nurses' work place empowerment (both structural and psychological empowerment) and job satisfaction. Magnet hospital characteristics and structurally empowering hospitals have staffs with better work satisfaction (Abdullah 2015:89). Another Korean study showed that nurses who are older, married, highly educated, on the position in charge of other nurses, and long clinical careers show relatively high job empowerment, job satisfaction and higher nursing performance than others (Kim, Kim and Young 2014:426-436).

Furthermore, Horwitz and Horwitz (2016:17) study on physicians' structural empowerment and organisational commitment on perceptions of patient safety culture shows that both variables (structural empowerment and organizational commitment) have a positive effect on perceptions about patient safety culture:  $r=0.26$ ,  $P<0.05$  and  $r=0.38$ ,  $P<0.05$ , respectively. The correlation between nurse's structural empowerment and perceptions on patient safety culture is direct: as the score of hospital survey on patient safety increases, the score of structural empowerment increases as well (Armellino, Quinn Griffin and Fitzpatrick 2010:800). Thus, a hospital set up that is structurally empowering and those hospitals that have over all magnet characteristics will have a favorable patient safety culture: the combined effect explains 46% of the variance in the model (Armstrong and Laschinger 2006:128). In addition, work place empowerment and staff burn out have an inverse correlation, as a hospital that has an empowering work environment will have a lower prevalence of nurse burn out (O'Brien 2010:43-45; Boudrias, Morin and Brodeur 2012:13-15).

Finally, health workers' empowerment has a direct effect on patient satisfaction. Bruning (2013:90) notes a correlation coefficient of 0.359 (Bruning, 2013) towards patient satisfaction. In addition, the structural and psychological empowerment of nurses are independent predictors for perceived respect (Faulkner and Laschinger 2008:219). Over

all structural empowerment and psychological empowerment are significantly correlated with respect:  $r=0.47$ ,  $p<.001$  and  $r=0.32$ ,  $P<.001$  respectively.

## **2.4 HEALTH WORKER'S JOB SATISFACTION**

Three dimensions of job satisfaction exist: it is an emotional response to job situation; job satisfaction is usually determined by the outcomes meet or exceed expectations; and that job satisfaction represents several related attitudes. Employees demonstrate affective response for a certain characteristic of their job. In addition, five job dimensions have been identified through the years (Luthans 2012c:141-142) and these are:

- a. *The work itself*: the character of the job will provide unique tasks, opportunities to grow and raise enthusiasm to accept responsibility.
- b. *Pay*: the amount as well as the equity of pay in the organisation will initiate affective response.
- c. *Promotion*: the chance to get a career advance in the organisation.
- d. *Supervisor*: whether the supervisor can give technical as well as behavioral support.
- e. *Co-workers*: whether the co-workers are technically and socially supportive.

These five dimensions were tested over time and are currently employed to measure job satisfaction in many sectors.

Employee's job satisfaction by itself may be good for employees. However, from organisational point of view, the correlation between job satisfaction and organisational desirable outcomes, such as employee's performance, is given much attention. In relation to the study at hand, the new Ethiopian Hospital Services Transformation Guideline identifies human resource management as one of the focus areas among the other seventeen strategic objectives. This guideline is meant to improve the quality of health service provided in hospitals. More importantly here, employee motivation and satisfaction are part of human resource management and these are measured and monitored yearly (Ministry of Health 2016:17-34).

### **2.4.1 Predictors and related factors of health worker job satisfaction**

Many empirical studies show that multiple determining factors contribute towards health worker job satisfaction. A systematic review study on nurses (a total of 100 study articles included in the systematic review) conducted by Lu, Baribal, Zhang and While (2012:118-136) notes the following :

- Job dissatisfaction was highest among nurses in USA (41%) followed by Scotland (38%), England (36%), Canada (33%) and Germany (17%). In addition, more than one fifth of nurses in the USA and one third in England and Scotland were planning to leave in one-years' time; the figure is higher in younger nurses and stood at 27-54% of nurses under the age of 30 planning to leave in all countries. Nurses were not engaged well in developing their own work schedules: in Scotland and Canada, only one third said they were not well engaging.
- Key sources of nurse's satisfaction are: physical working conditions, relationships with fellow workers and managers, staffing and scheduling, pay, promotion, job security, responsibility, the recognition from managers and hours of work.
- Most studies pooled in the systematic study indicate that job satisfaction is a predictor of job absenteeism, burnout, turn over and intention to leave.
- A lot of studies show that nurse's job satisfaction is related with working conditions and organisational environment, job stress, role conflict and ambiguity, role perception and role content, organisational commitment and professional commitment.

A study carried out by the Ethiopia Strengthening Human Resources for Health Project (2015:9-10) shows that health workers satisfaction in Ethiopia is generally low with a 64.4% satisfaction rate for midwives; 61.1% for nurses, 48.8% for health officers, 42.5% for anesthetists, and 39.2% for medical doctors. A comparison of medical doctors in Ethiopia with other health care professionals shows that they have the lowest motivation and job satisfaction. This study observes that almost half (49.4%) of health workers plan to leave their current position in the following year. This finding is augmented by another study conducted by Assefa, Hailemariam, Mekonnen, Derebew and Enbeale (2016: 285-295) that demonstrates that medical doctors' turnover ranges from 21.4 in Diredewa to 43.3% in the Amhara region with older physicians tending to have a lower incidence of turnover.

Various factors account for the desire to leave the health sector. These factors include poor access to higher education, low salaries, limited opportunities for promotion and concern for safety at work. More than 80% of health professionals in Ethiopia are dissatisfied with their salary and report that their working and living conditions are dissatisfactory. However, both health workers and managers report that need-based and fair access to in-service training and merit-based access to professional development

opportunities, such as further education, were the most successful ways to improve job satisfaction and retention in public health facilities (Ethiopia Strengthening Human Resources for Health Project 2015:10-11).

## **2.5 HEALTH CARE SERVICE QUALITY**

### **2.5.1 Introduction to health care service quality**

Defining quality is difficult owing to its subjective and intangible nature. The measurement of health care quality is even more difficult because of its heterogeneity, intangibility, and simultaneity of care (Mosadeghrad 2014:78). A series of attempts were made to propose a model on the quality of health care after Donabedian (1988:1743-1748); but the WHO Health System Based Quality of Health Care Model is more compelling. The WHO quality of care model is embedded in the system thinking that the quality of health care should fulfil the six building blocks of the WHO's health system blocks, which are: service delivery; health workforce; information; medical products, vaccines and technology; financing; and leadership and governance (World Health Organisation 2016b:14).

The WHO defines quality of health care as “the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centred” (Tunçalp, Were, MacLennan, Oladapo, Gülmezoglu, Bahl, Daelmans, Mathia, Say, Kristensen, Temmerman and Bustreo 2015:1046). The health system always strives to attain the six dimensions of health care quality (World Health Organisation 2006:9). A brief description of these dimensions of quality is depicted in the table as described by the Institute of Medicine (The Health Foundation 2013:9).

**Table 2-3:the six dimensions of quality**

<b>Safe</b> Avoiding harm to patients from care that is intended to Help them.	<b>Timely</b> Reducing waits and sometimes harmful delays.
<b>Effective</b> Providing services based on evidence and which produce a clear benefit.	<b>Efficient</b> Avoiding waste.
<b>Person-centred</b> Establishing a partnership between practitioners and patients to ensure care respects patients' needs and preferences.	<b>Equitable</b> Providing care that does not vary in quality because of a person's Characteristics.

The WHO's health system approach and donabedian quality of care model also includes a quality care framework for maternal and new born health. The framework, which encompasses care provided by facilities, engagement of communities to produce their health, and health workers' identification of self needs, has eight domains in the context of health system. The domains are: (1) evidence based practices for routine care and management of complication; (2) actionable information systems; (3) functioning referral systems; (4) effective communication; (5) respect and preservation of dignity; (6) emotional support; (7) competent, motivated personnel; and (8) availability of essential physical resources (World Health Organization 2016:16). All these eight domains are stratified as input, process and, whenever applicable, outcome measures according to the framework of Avedis donabedian.

South Africa issued a document on national core standards seeking to improve quality of health care in the country. The document "National Core Standards for Health Establishments in South Africa" aims to achieve quality of care for all patients. The document has identified seven domains with each domain has multiple sub domains, standards, criteria and measures. This document blended the concept of the WHO health system's six building blocks and the six attributes of quality mentioned above. The seven domains are: patient rights, patient safety (clinical governance and clinical care), clinical support services, public health, leadership and corporate governance, operational

management, and facilities and infrastructure (National Department of Health South Africa 2011:5-16).

### **2.5.2 Quality improvement approaches**

About two thirds of quality improvement initiatives will result in desirable and sustained changes. Evidence suggests that change is highly likely to occur successful if the model of change is participatory (including patients, health workers) from the design to implementation rather than when the model of change comes from top management (The Health Foundation 2013:12-13). The roots of most quality improvement approaches emerged from industry sectors. The common quality improvement approaches include the Kaizen, Model for improvement, Lean, Six sigma and total quality management. Ethiopia adopted the Kaizen and Model for improvement to advance the quality of health care.

### **2.5.3 Measuring quality of care**

The health system employs different quality measures to gauge the quality of health care rendered in any health care organisation. These health care quality measures are generally classified as structure, process and outcome measures. Structural measures intend to measure whether the necessary health care personnel, equipment, processes and any necessary inputs are in place. Process measures indicate the providers' activities seeking to maintain or improve the health of people and they are also the major reportable quality measures. The outcome measures are the impact that health care has made on patients (Agency for health care research and quality 2011).

The quality improvement indicators focusing on patient safety, effectiveness and patient centeredness/patient experience of quality of care are currently changing. The economic outlook of the world has changed dramatically with measurements related to efficiency, productivity and value for money gaining leverage along with the above mentioned quality measures (Raleigh and Foot 2010:3). Nonetheless, the measurement of patient satisfaction regarding the care received is a frequently and commonly used technique seeking to determine the structure and process of care patients receive from health care organisations (Al-Abri and Al-Balushi 2014:1-5).

A systematic literature narrative review on patient satisfaction reveals that there is no consensus regarding the definition and concepts of patient satisfaction among different

researchers. Pascoe defines patient satisfaction as a '... health care recipient's reaction to salient aspects of the context, process and result of their service experience', (Batbaatar, Dorjdagva, Luvsannyam and Amenta (2017:91). The definition shows that a patient individually compares his/her perceived standards with the standards of care subjectively: a cognitive and affective comparison of the structure, process and outcome of care with his/her experience of care. Despite the existing definitions and descriptions, (Batbaatar, Dorjdagva, Luvsannyam and Amenta (2017:91-95) note that three common characteristics exist among them and these are: (1) satisfaction is an emotional or affective evaluation of services based on cognitive processes shaped by expectations; (2) satisfaction is a congruence of expectations and actual of a health service. Finally, it is an overall evaluation of different aspects of the health service.

Multiple factors determine patient satisfaction but this is generally categorised into health-care provider related and patient related domains. A further nine factors are identified under the health care provider related domain and these are technical care, interpersonal care, physician environment, health care access, service accessibility, availability, affordability, organisational characteristics, continuity and efficacy/outcome of care. Patient-related factors, such as age, education, socio economic factors, marital status, race, religion, geographic factors, visit regularity, length of stay, health status, personality and expectation, also play a role in patient satisfaction (Batbaatar, Dorjdagva, Luvsannyam and Amenta 2017:91-95).

#### **2.5.4 Health care quality in Ethiopia**

One of the major transformation agenda of the five-year strategic plan on health (Health Sector Transformation plan 2016/17-2019/20) focuses on "transforming equity and quality of health care". The other agenda emphasises on a "caring, respectful and compassionate (CRC) health workforce [that] is related to quality of health care". One of the six attributes of quality of health care is patient centeredness and the strategic plan recognised that care given in Ethiopia is not patient-centred and the health workers are insensitive to the needs of patients with disrespect and abuse being common in Ethiopian health care facilities (The last Ten Kilometers (L10K) project 2014:1-3; Asefa and Bekele 2015:1-9). As a result, the strategic plan seeks to transform this situation by making health workforce caring, respectful and compassionate, and patients/clients' needs at the centre (Ministry of Health 2015b:110-120).

The Ethiopia Health Care Quality Strategy and the National Health Sector Transformation in Quality were initiated in 2016 in response to the transformation plan. The previous hospital reform guideline was enriched and, after adding another six components, has become the Hospital Services Transformation guideline. The purpose of the revised guideline is to guide the transformation of hospital services.

The Ethiopian National Health Sector Quality strategy, which was initiated in 2016, identifies three pillars of quality and these are quality planning, quality improvement and quality control (Ministry of Health 2016e:13-14). Quality planning encourages system thinking that starts from the top leadership in health care. Quality planning encompasses designing policies, strategies and goals aiming at the identified gaps in quality. It also lays down a structure to deliver quality health care to patients at the right time, place and for the right person. Quality improvement (QI) is “a continuous process whereby organizations iteratively test and measure changes in work routines, set and achieve ambitious aims, shift whole system performance, and spread best practices for rapid uptake at a larger scale to address a specific issue or suite of issues they have determined to improve (Ministry of Health 2016e:13)”. QI is also the uninterrupted continuous efforts of health care seeking to achieve better patient outcomes, system performance and professional development (learning). In addition, the quality improvement process aims at small and successive rapid changes, which results in quality improvement, while quality control is a process of assuring quality by maintaining or improving quality or avoiding/ reducing risks and medical error. Quality improvement could be internally organised to monitor quality (internal quality assurance) or external quality assurance (independent accreditation body).

It should also be noted that the strategy document has identified four strategic focus areas in an attempt to reach the ideal health care quality in the country. The strategies are to: (1) develop an integrated approach to planning, improving, and controlling quality; (2) activate key constituencies, particularly to motivate workforce, build leadership across all levels, and activate patient and community demand for quality; (3) drive improvement in quality by explicitly linking the Universal Health Coverage (UHC) strategy with quality; and (4) support strong data systems and feedback loops as the “backbone” of all improvement actions (Ministry of Health 2016e:16).

The Ethiopian government has developed further documents in an attempt to strengthen quality of care. The government developed the Ethiopian Health Sector Quality (EHSQ) guideline, which has the following parts in it: quality improvement guideline, Ethiopian quality structure, clinical audit guideline and health service quality standards for some selected focus areas (Ministry of Health, 2016f:1-191). There is also the Hospital Performance and Improvement Manual, which identifies key performance indicators for hospitals in Ethiopia. The purpose of this manual is to help hospital senior management, governing boards, the Ministry of Health or Regional Health Bureaus to track the performance of their hospitals using key performance indicators. These indicators assist in monitoring the aspects of quality (effectiveness, safety, efficiency, patient centeredness) rendered in hospitals. Twenty-six key performance indicators are organised into 11 categories and these are: hospital management, outpatient services, emergency services, inpatient services, maternity services, pharmacy services, laboratory services, productivity, human resources, finance and clinical governance (Ministry of health 2017:18-19).

## **2.6 PATIENT SAFETY CULTURE**

### **2.6.1 Introduction to patient safety**

Patient safety may be defined as “A discipline in the health-care sector that applies safety science methods towards the goal of achieving a trustworthy system of health-care delivery”(Emanuel, Berwick and Conway 2008:6). Patient safety is also an attribute of health-care systems that serves to reduce the occurrence of adverse medical events and mitigates the impact and recovery from such events. This definition recognises patient safety as a way of doing business and a new discipline. It is also clear that the goal of patient safety is to minimise adverse events and prevent harm in health care. Harm can arise both from omission and due to taking action (Emanuel, Berwick and Conway 2008:6-7). As a result, patient safety focuses heavily on system thinking and design in order to avoid risky interventions that pose harm to health facility users. In addition, the safety systems focus on designing materials, procedures, the environment, training and on the prevailing culture in any organisation.

There has been much attention on patient safety in health care after a land mark report, “To err is human: building a safer health system”(Kohn, Corrigan and Molla 2000:1-357), declared 98,000 dies and up to one million people are injured per year , in the USA alone.

In 2013, James updated the estimate to 400,000 deaths and 10 to 20 times more injuries per year (Ulrich and Kear 2014:447). The current health care environment does not encourage health workers to come out with either the near misses or medical errors they experience as the environment has punitive attitude towards them. Nonetheless, adverse medical safety events are still very common. The statistics shows that the most common safety adverse events are related to surgical procedures (27%), followed by medication errors (18.3%); and health care associated infections at 12.2% (World Hhealth Organisation 2017:2).

The quality and safety problems are a result of the following reasons (Darling Downs Hospital and Health Service 2014:3):

- Professional culture (individualist rather than team and system based).
- Low level of regulation (especially at the individual practitioner level): little or no consequences for good or bad performance or unjustified practice variation.
- The funding model is not performance based: even poor-quality work is sometimes rewarded.
- Poor communication and team work.
- Systems not designed with safety in mind.
- Low value placed on safety relative to production.
- Difficulty in defining and measuring quality and safety.

Vincent( 2011:25) identified seven elements which influence patient safety and these are: (1) Organisation and management factors; (2) Work environment factors; (3) Team factors; (4) Task factors (5) Individual factors; (6) Patient factors; and (7) Institutional factors.

### **2.6.2 Patient safety culture**

The Institute of Medicine (IOM) committee recommended, after the land mark report of the “To err is human: building a safer health system” that patient safety must be promoted, health care organisations should have goals that promote a culture of safety owned by top leadership. Health professionals, in a system that has a strong safety management system, strive to exhibit the following five attributes: (1) a culture where all health-care workers (including front-line staff, physicians, and administrators) accept responsibility for their safety and that of coworkers, patients and visitors; (2) a culture that prioritises safety above financial and operational goals; (3) a culture that encourages and rewards the

identification, communication, and resolution of safety issues; (4) a culture that provides for organisational learning from accidents; and (5) a culture that provides appropriate resources, structure, and accountability to maintain effective safety systems.

Various studies show that transformational leadership has a positive and direct relationship with patient safety culture and climate (McFadden, Henagan and Gowen, 2009:399; Merrill 2015:221). Other studies also note that health workers empowerment, especially structural empowerment, is significantly and directly related with patient safety culture (Armellino, Quinn, Griffin and Fitzpatrick 2010:800; Dirik and Intepeler 2017:262). Furthermore, the Agency for Health Care Research and Quality developed measuring instruments for hospital survey on patient's safety culture and patient's experience of quality of health care. As a result, studies, which used both instruments show that a positive and direct correlation exist between hospital patient safety culture and patient experience of quality of health care. A study conducted by Sorra, Khanna, Dyer, Mardon and Famolaro ( 2012:131-138) shows that nine of the hospital patient safety culture variables are moderately correlated with the hospital composite measure of patients' experience of care. Sorra et,al ( 2012:131-138) noted further that regression coefficient values range from  $\beta = 0.25$  to  $\beta = 0.38$ , with organisational learning-continuous improvement, staffing, and teamwork within units having  $\beta$ -coefficients above 0.35 among the nine variables, which signifies that these three variables (organisational learning-continues improvement, staffing, and teamwork within units) are a strong predictor of patients' experience of quality of care.

### **2.6.3 High reliability organisations**

Patient safety culture concepts and practices currently advocated in health care originated from high reliability organisation studies outside health care. High reliability organisations execute complex and hazardous operations for longer periods, but the occurrence of adverse events is very low. Commitment to safety permeates all employees of the organisation: from front line workers to managers and executives (Patient Safety Network 2016a). This concept attracts health care for it has complex and hazardous operations and very high risk of having catastrophic consequences if a hazard occurs. High reliability organisations have a culture of "persistent mindfulness", and give priority for safety over other performance measures. These organisations use system thinking to evaluate and design for safety, and also understand that safety issues are very dynamic (Patient Safety Network 2016b).

A high commitment to a culture of safety is manifested in high reliability organisations. The key features of this high commitment are (Patient Safety Network 2016a):

- Admitting the reality that they engage in high risk operations and must consistently try to achieve safe operations.
- A blame free environment where workers are encouraged to report errors or near misses.
- A very high collaborative environment where workers along with their manager and executives come together and discuss on patient safety issues.
- Prioritise organisation resources for safety culture.

## **2.7 CONCLUSION**

This chapter defined leadership in general and effective leadership in multiple sectors in general, and reviewed literature on the contemporary thinking, principles and theories of leadership potentially useful in health care. The literature review also emphasised on the full range leadership model as it is the model of choice for this study. The chapter also considered the qualities and concepts, as treated in existing literature, focus on patient empowerment, patient satisfaction, patient's safety culture, and patient satisfaction, since these all are parts of the research conceptual framework, as depicted under theoretical framework of chapter one of this thesis.

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHOD**

#### **3.1 INTRODUCTION**

This study consists of three phases. The first phase is a quantitative correlational study which tested whether differences based on: leadership styles, outcomes and effectiveness; health workers satisfaction and empowerment; and patient safety culture as well as patient experiences of quality of care, existed between public and private hospitals. In addition, the researcher tested the effects of leadership styles (transformational, transactional and laissez-faire/ineffective leadership styles) on health worker satisfaction and empowerment, patient's safety culture and patient satisfaction. The effects of health worker satisfaction and empowerment on patient safety culture were also modeled in the study's first phase. The second phase, a qualitative study, helped to uncover factors, which determine the effectiveness of hospital leadership; health worker satisfaction and empowerment; and patient safety and quality of care both in public and private hospitals. In the third phase, the researcher identifies 7 thematic areas using a qualitative study approach and then formulates eight strategic priority areas to improve effectiveness of hospital leadership in Ethiopia.

#### **3.2 RESEARCH APPROACH AND DESIGN**

A research approach is a plan and procedure the researcher will pursue in the process of answering his/her questions of interest. This approach will clearly state what the researcher should follow in the process of answering the research questions. Hence, Houser (2015:131) defines a research design as "the overall approach to or outline of the study that details all the major components of the research " blue print" or outline of study that must be followed". In addition, Creswell( 2014:1) states clearly that the approach will encompass the broad assumptions, detailed methods of data collection, analysis and interpretation processes of the research.

##### **3.2.1 Mixed method approach**

In this study, the researcher employed the mixed method approach to answer his research questions. The mixed method approach, according to Creswell (2014:2), is defined " an inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks" . The research paradigm for mixed method

research is pragmatism, where, a pragmatic world view focuses on research problems in social sciences and searches for solutions for the research problem using pluralistic approaches (Creswell 2014:9).

### ***3.2.1.1 Sequential explanatory design***

The study specifically employed the sequential explanatory mixed method design. Here, a general picture of the research problem is elaborated in a limited way by the quantitative study design with a further clarification and elaboration of the results done by conducting qualitative study. The purpose of the qualitative study is to deeply uncover/explain the findings of the quantitative study (Creswell 2014:14). In this study, the researcher first conducted a quantitative research, analysed the results, and based on the results, elaborated the findings by employing content analysis under the qualitative research method to come up with strategies to improve the variables: leadership effectiveness, health worker satisfaction and empowerment, patient safety and quality of health care.

This study had three phases. In the first phase, the researcher determined whether there were differences between public and private hospitals in terms of the research's key variables leadership styles (transformational, transactional, laissez-faire/ineffective leadership); level of health worker satisfaction and empowerment and what factors affected these variables; and patient safety culture and patient experiences of quality of health care and the factors affecting these. In addition, this phase tested the relationship between leadership styles and the other four variables, health worker satisfaction and empowerment, patient safety culture and patient experience of quality of care, at hospital level. Finally, a model was constructed to evaluate the effects of health worker satisfaction and empowerment on patient safety culture.

The findings arrived at in the first phase were used to prepare a semi-structured interview guide for the second phase of the research. The second phase gave due emphasis on uncovering factors that determined the effectiveness of hospital leadership, health worker satisfaction and empowerment, patient safety and the quality of care in both public and private hospitals.

The third phase of this research consists of the articulation and writing phase of effective strategies, which will help to improve hospital leadership. The main findings of the third phase emerged from the second phase of the study.

The next subsection briefly outlines both research designs embedded in the mixed method design.

### **3.2.1.2 Quantitative research design**

The quantitative research design, which reflects a post-positivist research paradigm, is used in this study. The post positivist paradigm, also called positivist, empirical science and post positivism, holds a deterministic view that cause probably determines outcomes. As a result, it searches for the search for cause effect relationship as in experimental study. This paradigm also concerns itself mainly with developing numeric measures of observation and studying the behaviour of individuals. The key assumptions of post positivism are that: (a) absolute truth cannot be found and knowledge is supposition; (b) research is making claims and the process of refining and abandoning facts;( c) data evidence and rational evidence shape knowledge; (d) research aims to test the causation of a given knowledge and ; (e) objectivity comes at the heart of any enquiry and so one should be aware of testing methods and conclusions for bias (Creswell 2014:8-9).

The first phase of the research was achieved using the descriptive correlation study approach, which is a kind of quantitative non-experimental study. Here, the descriptive correlational study involves measuring the relationship between two or more variables to determine both the direction and strength of relationship (Houser 2015:141). As a result, the researcher determined, in the first phase the study, leadership outcomes and effectiveness; health worker job satisfaction and empowerment; patient safety culture and patient experience of quality of health care in both public and private hospitals. The factors which could determine these variables in the first phase were also explored.

### **3.2.1.3 Qualitative research design**

This research design reflects the constructivist world view or paradigm, whereby, individuals seek to understand the environment in which they live and work. In this paradigm, the researcher develops subjective meanings, which are varied and multiple in their experiences. The goal of qualitative research design is to understand these subjective experiences of interest. That is, a qualitative researcher's intention is "to make sense of (or interpret) the meanings others have about the world"(Creswell 2014:9). The assumptions behind this paradigm are: (a) individuals construct meanings when they interact with the world; (b) historical and social background determines the individuals sense of meaning making ; and that (c) the generation of meaning, which is always social, arises from the interaction of human beings (Creswell 2014:9-10).

The researcher moved, to the second phase of study in order to deeply elaborate factors that potentially affect leadership effectiveness, health worker job satisfaction and empowerment, and patient safety and quality of health care both in public and private hospitals. A qualitative content analysis approach, specifically directed content analysis, was employed to establish effective hospital leadership strategies. The directed content analysis approach was purposed to further validate and test a previously existing theoretical framework or content; and the existing theory is used to structure the process of the research than is the case with the conventional content analysis (Hsieh and Shannon 2005:1281).

The second phase of the study used in-depth interviews (IDI) with key informants as the method of data collection. This technique is common in organisational research because it is appropriate when investigating processes and actions. Key informants hold special positions in the social structure and they can give role-related aspects of the social structure they are taking part in (Faifua 2014:4). The researcher tried to explore the effective hospital leadership thoughts, perceptions and experiences of hospital leaders, managers, and experts in the field in order to find ways to improve patient safety culture, health worker empowerment and satisfaction, and patients experience of quality of health care(Houser 2015:399).

### **3.3 RESEARCH METHOD**

A research method refers to the methods/techniques used to collect data for further analysis. It is the technical knowhow/techniques researchers use to collect the data for specific study purpose (Ellis 2013:13).

The researcher has already outlined the research methods followed based on the two phases of the study. However, there was a third phase, which was mainly for synthesising and writing up (integration of) the effective hospital leadership strategies. The first phase of the study was a quantitative data collection method survey, while the second phase of the study followed a qualitative data collection method using in-depth interviews of key informants.

#### **3.3.1 Phase one study**

##### **3.3.1.1 Study setting**

The study setting covered the Addis Ababa public and private hospitals. Addis Ababa is the capital city of Ethiopia and the sitting place for many international organisations. As

a result, it was purposefully selected by the researcher because of the thinking that the findings could be easily reproducible in regions, especially the country's regional capitals. Addis Ababa city's Regional Health Bureau owns six public hospitals; among them four were serving the general population including children, women and adult males. There also existed twenty general private hospitals in Addis Ababa before the data collection. The site target population consisted of hospitals found in Addis Ababa, both public and private ones. There were 20 private and four general hospitals owned by Addis Ababa City Administration council (Ministry of Health 2015c:13-46). But the researched understood that three hospitals left out due to different reasons.

### **3.3.1.2 Study Population**

A population is defined as the whole set of people to whom the results will be generalised (Houser 2015:178). Study population is also all individuals the researcher is interested to study (Berar, Geresch, Macnee and McCabe 2011:107). Thus, the total target population included in the assessment of leadership styles, patient safety culture, health worker's satisfaction and empowerment, consisted of all health workers who had been working at four public and 17 private hospitals in Addis Ababa, and the senior management of hospitals (chief clinical officers, medical directors, ward heads, finance and admin, human resource and finance managers). The target population identified in order to assess patient experience of quality of health care were patients who had received services during the time of data collection in those four public and 17 private hospitals in Addis Ababa.

The accessible population used to assess leadership styles, patient safety culture, health worker's satisfaction and empowerment, were all health workers who had been working in the three public and another six private hospitals. All health workers who were working in these nine hospitals were included. In addition to health workers, senior management of three public and six private general hospitals in Addis Ababa were part of the accessible population.

### **3.3.1.3 Sample and sampling procedures**

A sample is the subset of the overall population the researcher wants to study and included in that study (Berar *et al* 2011:108). In addition, sampling refers to the process of selecting some part of the population to infer about that whole population of interest with sampling design/procedures being methods used to select sample units from the given population (Thompson 2012:1-2).

A given sample and sampling procedures were used in this study's three phases, where the first and the second phase dealt with collecting quantitative data and qualitative data, respectively. The third phase focused mainly on formulating and writing up effective hospital leadership strategies that will serve to improve quality of health care, patient safety culture, health workers' empowerment and general work satisfaction.

#### *3.3.1.3.1 Sample and sampling procedures to assess styles of leadership*

The samples to assess styles of leadership were employees consisting of chief executive officers, medical directors, finance and HR managers and heads of all major departments at the selected nine hospitals (three public and another six general private hospitals). A total of four public hospitals and seventeen (17) private hospitals were operating during the time of data collection. However, three public hospitals and other six private hospitals were included in the study. The researcher employed the simple random sampling technique to select the six private hospitals to be included in this study.

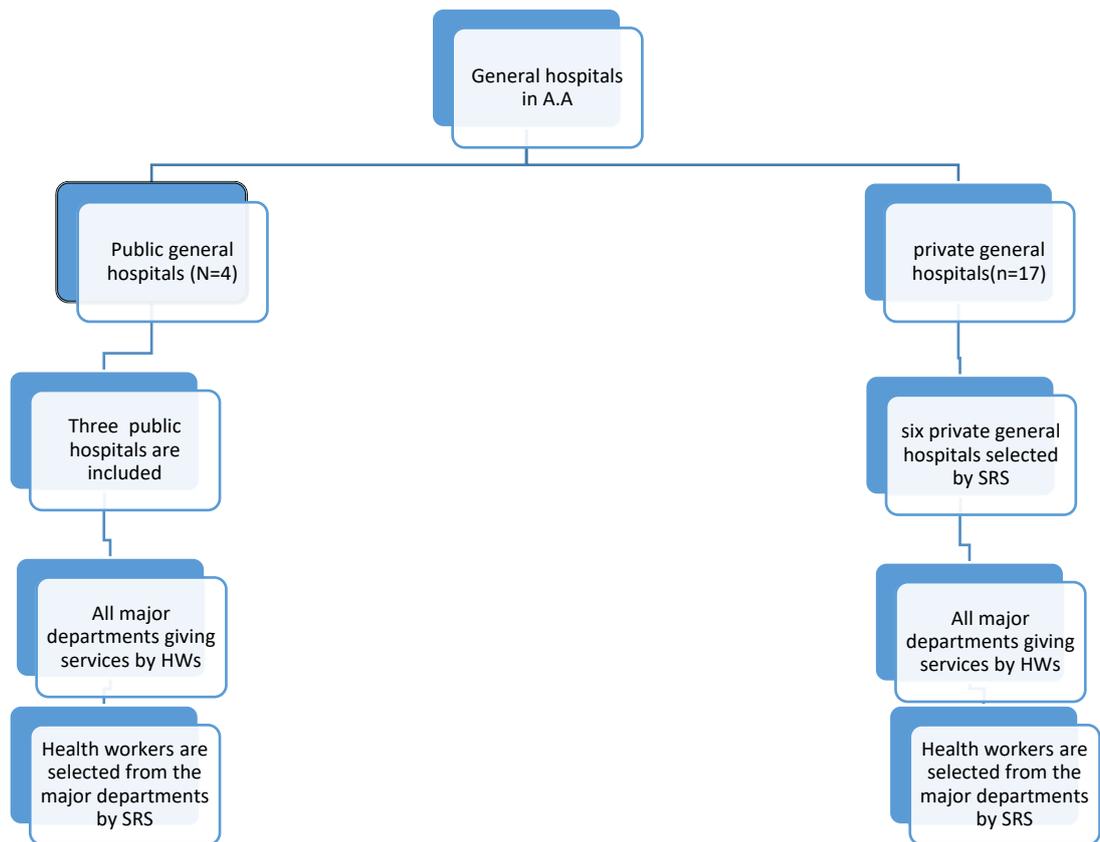
#### *3.3.1.3.2 Sample and sampling procedures to assess health workers' empowerment, general work satisfaction and patient safety culture*

Health workers working in all major departments were included in the study in order to assess health workers' empowerment, general work satisfaction, and patient safety culture. Nine hospitals (three from public and six from the private) were included and a simple random sampling method was employed to select the six private hospitals. The private hospitals were the same hospitals included in assessing styles of leadership above.

- Sampling procedures: All three public hospitals run by the Addis Ababa Regional Health Bureau and six-private hospitals were selected from the seventy general private hospitals using the simple random sampling technique. The sampling followed multi cluster stage sampling methods in which hospital types, major departments and health workers were considered as units of study. The proportion to size allocation method was employed when taking each participant health workers from private and public hospitals, thus, first the total number of health workers were determined in the three public and 17 private general hospitals and second, the total number of study participants from public and private hospitals was determined. The proportion to size method was again applied on the level of the major departments, as a result, first all health workers in those nine hospitals included in the study were enumerated and the proportion of study participants

allocated from each department according to their size. At each department, simple random sampling was employed to pick the individual study participants: the researcher requested the list of health workers from each participant departments and a lottery method was employed to include individual study participants. Finally, each health worker completed at least three structured questioners focusing on general work satisfaction, health worker empowerment, and patient safety culture questioners.

- The sample size determination involved the use of the Epi info version 7.2.2.2 to calculate the sample size for the Health Worker's empowerment and general work satisfaction (Center for Diseases Contro and Prevention 2017). The level of general health worker's satisfaction stands at 51.3% in a previous study (Ethiopia Strengthening Human Resources for Health Project 2015:30); type one error 5%; margin of error of 5%; design effect of 1.5 ; 95% confidence interval. The sample size is 576 after the finite population sample size correction. An addition of the non-response rate of 10% meant that the final sample size is **634** health workers needed to determine the general health workers' satisfaction, empowerment and patient safety culture.



**Figure 3-1:sampling procedures to determine health workers’ job satisfaction, empowerment and patient safety culture**

**N.B** – “A. A”- Addis Ababa

- “HWs” = health workers

- SRS” = simple random sampling

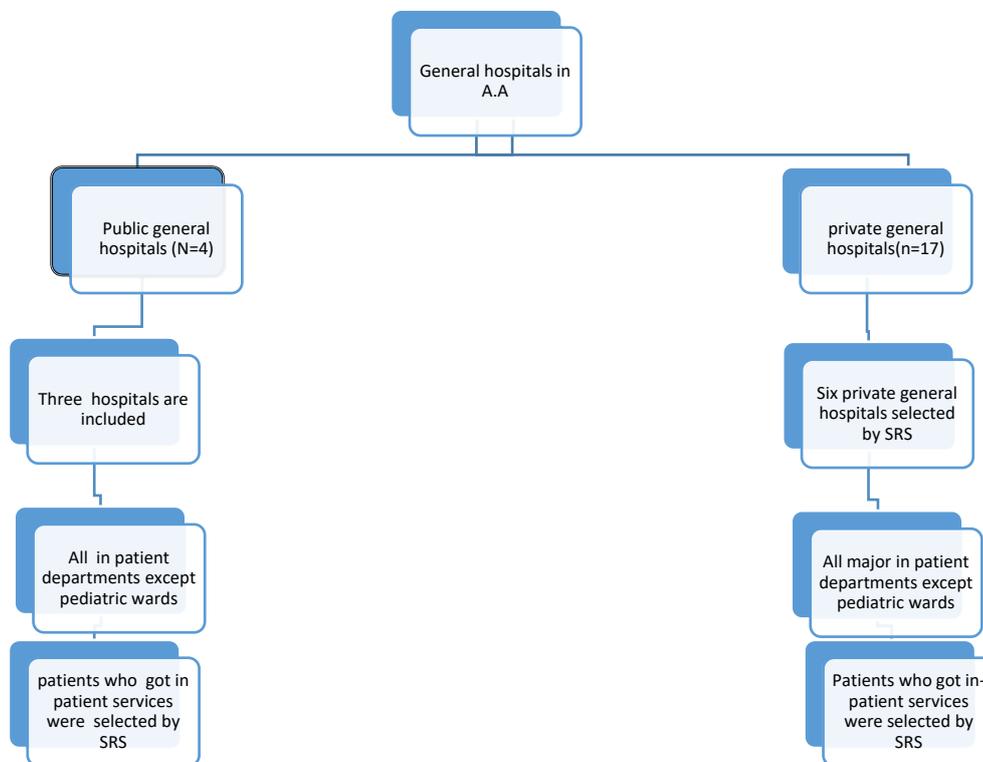
### 3.3.1.3.3 Sample and sampling procedures to assess patients’ perception of quality of health care

Patients who had been served in the nine-general public and private hospitals were included in the study. Those patients who had received in-patient services at the time of data collection were included in the study.

- Sampling procedures: the multi cluster stage sampling was employed to reach the final study participants. The levels of analyses were hospitals, in-patient departments and patients. A proportional allocation method was employed. Here the allocation of patients between public and private hospitals was estimated based on the number of health workers in the two categories on the thinking that the health workers number may determine the patient load in both categories. The

allocation for individual hospitals considered the total number of patients based on the total number of health workers that hospital have. Then questionnaires were filled by interviewers until the allocated number for that hospital had been reached.

- Sample size determination: The Epi info software version 7.2.2.2 was used to calculate the sample size for patient satisfaction. A study done at Jimma Specialised Hospital showed an overall patient satisfaction was 77% (Assefa, Mosse and Hailemichael 2011:101-109). In addition, there was a 95% degree of confidence; margin of error 5%; type one error 5%, and design effect of 2, the total sample size was 544. After adding 10% non-response rate, the final sample size was 599 patients.



**Figure 3-2: Sampling procedure to determine patients’ experience of quality of health care given by both public and private general hospitals**

#### **3.3.1.4 Inclusion criteria**

The study’s phase one site accessible population were all public and private hospitals that provide multiple health care services for children, women and Men. The public hospitals here should be governed by the Addis Ababa City administration. In addition,

the health workers at their current work place for at least six months were included in the participant accessible population. This minimum six-month work experience criteria also applied to hospital leaders and managers. In addition, the National Associations of Public Hospitals and Health Systems (2008:1-8) states that for one to measure patients' experience of quality of hospital care, the patients must :

- be at least 18 years at the time of admission.
- stay at least for one night in that hospital.
- receive a non-psychiatric principal diagnosis at the time of discharge

### **3.3.1.5 Exclusion criteria**

Hospitals in Addis Ababa which were governed by the Federal Ministry of Health were excluded in order to facilitate a comparison with regional hospitals owned by the other regional and city administration states. In addition, those patients who did not get in-patient services at the time of data collection were excluded from the study. The researcher also excluded patients who received services at the outpatient department as the data collection tool used catered for those patients who had received in-patient services. Hospitals and health workers who were not willing to participate in this study were also excluded.

### **3.3.1.6 Data collection**

Data has specific meaning in research. It is raw information collected in research using different methods of data collection (Berar *et al* 2011:27).

#### **3.3.1.6.1 Data collection approach and method**

Data collection is one of the major parts of research. In phase one, the researcher collected data from non-clinical hospital leaders, medical directors, department heads, health workers and patients using four various kinds of interview questionnaires. A questionnaire is meant to measure a specific written data from study participants. A standardised set of questions (items) are included in a questioner to capture responses from respondents.

A questionnaire can be classified as structured or unstructured (Bhattacharjee 2012:74). In a structured questionnaire, a combination of items or questions, which seek to measure a specific variable, are called scales. These set of questions or statements in a scale are often called items (Berar *et al* 2011:157). The structured questionnaire is usually close ended and intended to measure patterns and trends in quantitative study (The University

of sheffield 2014). Questionnaire based data collection method is one method of collecting primary data from research participants and it can be used to assess characteristics, behaviours and attitudes of a given study population (Hay 2010:77).

Questionnaire-based research has many advantages. These include that reality that: it is quick; all participants are given equal opportunity to give feedback; openness and honesty are highly encouraged for it is anonymous; and it can be processed by software packages. However, the approach is not without limitation, for, questions could be interpreted differently and a careful design may not avert this limitation; processing large data may be time consuming and motivating respondents to complete the questionnaire may not be easy, and low response rate is high (The University of sheffield 2014).

#### *3.3.1.6.2 Data collection tool development and testing*

The researcher utilised psychometrically tested questionnaires to collect his research data. Five questionnaires were on use to conduct this research. These are: (1) Multifactor leadership questionnaire (MLQ5x), which are utilised in full range leadership model; (2) Health worker's satisfaction tool which, is well tested psychometrically; (3) a psychological empowerment and The Conditions of Work Effectiveness Questionnaire-II questionnaires, which measure psychological and structural empowerment of health workers respectively; (4) the Agency of Health care Research and Quality's Hospital Survey on Patient Safety Culture (HSOPSC) ,which helps to measure patient safety culture; and (5) The Hospital Consumer of Health Care Providers and Systems (HCAHPS), which helps to measure patient experience of quality of health care. Only the Hospital Consumer of Health Care Providers and Systems (HCAHPS) was translated to Amharic. Questionnaires for health workers, leaders and manager were administered in English as this is the language of business at universities and colleges in Ethiopia.

Data administrating instruments were pretested both in public and private general hospitals not included in the study. The purpose of the pre-test was to determine whether the formats were user friendly, the languages were clear and easily understandable, and to estimate the amount of time the participants took to complete the questionnaires. Each category of health professionals, leaders and managers were included in the pretesting. All the five questionnaires were pretested, comments incorporated, and the final questionnaires prepared for the real data collection.

### 3.3.1.6.3 Characteristics of the data collection instrument

The data collection instrument (DCI) can be defined as the means (physical or non-physical) for producing quantitative or qualitative data for analysis and interpretation (Griffiee 2012:128). This study employed the mixed method design and as a result, both structured and semi structured questionnaire were utilized. The first and quantitative phase study used the structured questionnaire while the qualitative and phase two stage used the semi structured questionnaire. A brief description of the five kinds of questionnaires is worth mentioning here:

- Multifactor leadership questionnaire (MLQ5x): it is prepared based on the full range leadership model proposed by Avolio and Bass. The full range leadership model consists of nine single order factors consisting of five from transformational leadership, three from transactional leadership and one non-transactional laissez faire leadership. This leadership model is translated into questionnaires called multifactor leadership questionnaire to collect the data related to the model. The multi-factor leadership model has undergone multiple revision to reach the current short form (5x). This MLQ 5x questionnaire has 45 items, 36 of which measure the nine factors of the full range leadership model while the remaining nine measure the three leadership outcome scales and with each leadership scale constituting four items. The questionnaire has a five-point Likert scale from “not at all” to “frequently if not always” (Antonakis Avolio and Sivasubramaniam 2003:264-266).
- Health worker satisfaction tool: this is a tool to measure satisfaction of health care employees working in hospitals and health centres, which was constructed and tested by Alpern and her colleagues. It is prepared for health workers in low income countries, such as Ethiopia, and was tested and constructed in Ethiopia. It has 20 items, 18 of which are categorised in to three areas and these are: relations with management and supervisors, job content, and relations with co-workers. The remaining two items are meant to measure the overall staff satisfaction (Alpern, Maureen, Canavan *et al* 2013:1-8).
- Psychological and Structural empowerment tool: here the researcher will measure two constructs, which are psychological and structural empowerment. Two kinds of measurement tools will be on work and these are psychological empowerment and The Conditions of Work Effectiveness Questionnaire-II questionnaires. Spreitzer was the first to develop and validate a multi-dimensional construct to measure psychological empowerment. This 12 item instrument has four

categories and these include employees perception of meaning, competence, autonomy (self-determination), and impact (Spritzer 1995: 1442-1465). Structural empowerment will be measured by the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II). The first version (CWEQ-I) was developed by Kanter and this questionnaire was modified later by Laschinger. The newer version has 19 items that measure six components, access to opportunity, information, support, resources, formal power, and informal power, of structural empowerment. Finally, a 5 point Likert-scale ranging from 1 (“none”) to 5 (“a lot”) is used to document the responses from respondents (Wong and Laschinger 2013:951).

- AHRQ Hospital Survey on Patient Safety Culture (HSOPSC): The Agency of Health Care Research and Quality, under the United States Congress, developed a tool to measure patient safety culture in hospitals. The tool has 54-questions that measure safety cultures across 14 dimensions where 12 are safety while the other two are outcome related. These dimensions are: (1) Hospital management support for safety; (2) Organisational learning; (3) Teamwork within units; (4) Supervisor/manager expectations and actions promote safety; (5) Compliance with procedures; (6) Staffing; (7) Error feedback and communication; (8) Overall perceptions of safety; (9) Openness of communication; (10) Non-punitive response to error; (11) Positive-reporting norms; (12) Frequency of event reporting; (13) Teamwork across units; and (14) Hospital handoffs and transitions (Savage, Fottler and Khatri 2010:111).
- The modified Hospital Consumer of Health Care Providers and Systems (HCAHPS): the HCAHPS survey tool was developed by the Agency of Health Care Research and Quality to collect patients’ experience of quality of health care. The last version of this tool has six composite measures, which focus on communication with nurses and doctors, responses of hospital staff, pain management, communication about medicines, and discharge information. The version also focuses on two individual items related to the cleanliness and quietness of hospital environment, and another two global items that recommend the hospital and overall hospital rating. A total of 25 items are in the questionnaire in addition to the demographic items about the participants(National Associations of Public Hospitals and Health Systems 2008:1-8; Agency for Health Care Research and Quality 2015:1-13).

A brief patient experience assessment tool was developed for low income countries in Ethiopia (Webster Mantopoulos, Jackson, Cole-Lewis, Kidane, Kebede, Abebe, Lawson and Bradeley 2011:258-268 ). Most of the items and themes were taken from the HCAHPS except for some modification. The short version was tested psychometrically. It is difficult to take the whole HCAHP and apply it in developing countries like Ethiopia, as a result, the researcher will modify the HCAHPS, translate and pre-test it before collecting data. The researcher deferred use of the brief assessment tool because it lacks the discharge composite measuring items, which the researcher strongly believes are critical to assess the quality of health care.

#### *3.3.1.6.4 Data collection process*

Except for the modified HCAHPS questionnaire, the other four questionnaires were self-administered, and the language of the tools was English. English language in Ethiopia is the official language in Colleges and Universities and all health professionals are taught in English. However, the modified HCAHPS was translated by a professional translator and the researcher into Amharic. Both versions were compared and the last version pre-tested before it was utilised for the real data collection using an interviewer administered questionnaire.

One data supervisor and four data collectors were trained for two days on data collection methods, data handling, and data quality assurance and on basic principles of research ethics pertinent to this study. First the principal investigator, together with the data supervisor, contacted hospital leaders and department heads successively and the self-administered questionnaires were dropped to each participant. The principal investigator and data collection supervisor oversaw the process very closely.

### **3.3.2 Phase two study**

The researcher conducted this phase after finishing the first phase of the study in which he had collected the data, analysed it and came up with preliminary results. Then the input the researcher garnered from the first phase was utilised to refine the semi structured interview guide for use in the second phase of this study.

#### **3.3.2.1 Study population**

The site target population consisted of all public and private hospitals, government health bureaus, development partners, NGOs, academic institutions, and professional associations in Addis Ababa. The accessible site population were public and private

hospitals not included in the first phase of the study, and institutions consisting of senior policy experts, administrators, and academics.

The respondent population were those hospital leaders and manager, senior health policy experts, administrators and academicians.

### ***3.3.2.2 Sample and sampling procedures***

Ten key informant interviews, consisting of hospital leaders and managers not included in the first phase of study, health policy experts, administrators and scholars, were included in this phase. Generally, the sample size in qualitative studies is determined based on data saturation point, wherein the interview continues until a data saturation point is reached. This data saturation point is the point at which no new information is generated and the sample size is determined to be adequate (Houser 2015:392). Therefore, the researcher discontinued the interview after interviewing 11 key informants after inferring that the data saturation point had been reached.

Finally, the purposeful (Judgmental) sampling technique was employed to reach the respondent accessible population, who are in this case, hospital leaders and managers, and experts in the field of hospital leadership. Purposeful sampling uses the judgment of an expert in selecting cases or the researcher selects cases with a specific purpose in mind (Ishak and Abu Bakar 2014:32).

### ***3.3.2.3 Exclusion criteria***

Hospital managers and leaders who participated in the first phase of the study did not partake in this second phase.

### ***3.3.2.4 Data Collection***

Semi structured interviews were used for data collection. A semi structured interview guide was prepared by the researcher to focus on necessary points which helped to formulate strategies to improve hospital leadership effectiveness in the areas of quality of health care, patient safety, health workers general satisfaction and empowerment. The semi structured interview seeks to understand people's perceptions and experiences. The researcher, in semi structured interview, planed some questions or themes "...but lines of enquiry will be pursued within the interview, to follow up on interesting and unexpected avenues that emerge" (Blandford 2013:23). The interview guide had at least introduction, opening questions, core in-depth questions and closure

The interview guide was pretested on key informants with similar experiences. The purpose of the pilot test was to identify whether there existed flaws, limitations and other weakness in the interview design and make the necessary corrections before the final implementation of the interview (Turner 2010:757).

The second phase of the data collection process started after data collection and the preliminary analysis of the first phase had finished. All 11 (eleven) interviews were conducted by the researcher. The key informant interviews started at the Addis Ababa Regional Health Bureau and Federal Ministry of Health (quality and clinical service directorates), which currently oversee the transformation agenda of hospital quality improvement. Other key informants were handpicked based on those expert opinions and the researcher judgment. The researcher also tried to reach those selected informants and discussed the importance of the study, and requested their participation. The interviews, with the consent of the key informants, were videotaped. The collected data was transcribed, translated in to English, and entered in the Atlas.ti software for further analysis.

### **3.3.3 Phase three study**

By the time the researcher reached phase three, all data had been collected (both phase one and two) and preliminary results for phase one written based on the four objectives (except the last two). The results were used to assemble the strategies that assist in improving the effectiveness of hospital leadership, especially from the perspective of patient safety, health worker empowerment and satisfaction, and quality of health care rendered in hospitals. The first phase of the study in conjunction with the second phase helped to strategise effective hospital leadership.

**Table 3-1 Summary table on research design, phases of study, instruments and sample sizes**

<b>Study Phases</b>	<b>Research design</b>	<b>Research variables</b>	<b>Research instruments</b>	<b>Sample sizes</b>
Phase one	Quantitative (descriptive correlational) design	Leadership styles	Multifactor leadership questionnaire (MLQ5x)- Leader form	75 leaders
		Health worker job satisfaction	Health worker's Job satisfaction tool	634 health workers
		Structural empowerment	The Conditions of Work Effectiveness Questionnaire-II	
		Psychological empowerment	Psychological empowerment instrument	
		Patient safety culture	Hospital Survey on Patient Safety Culture	
		Patient experience of quality of health care	The Hospital Consumer of Health care providers and Systems (HCAHPS)	599 patients
Phase two	Qualitative design (content analysis)	Expanding what factors determine the above variables;	Semi-structured interview guide prepared	11 key informant interviews
		Triangulation of the above two phases		
Phase three		Write up of the strategy document		

### **3.4. ETHICAL CONSIDERATION**

Ethics in research, especially if human subjects are involved, is primarily concerned with the analysis of ethical issues with research participants. It has three primary objectives: the protection of human subjects; keeping the interest of individuals, groups and community/society; and looking at the general ethical soundness by examining the management of risks, protection of confidentiality, and the process of informed consent. It also requires acting with integrity, to become just, beneficent and respectful (Hay 2010:35-45).

This study complied with the Research Ethics principles of UNISA and Ministry of Science and Technology of this country, Ethiopia. The researcher briefly outlined the ethical considerations that were followed to protect the human subject participants.

### **3.4.1 Permission to conduct research**

Ethical clearance was requested from the Higher Degrees Committee of the Department of Health Studies, University of South Africa (Annex A). In addition, the researcher was sought a letter of permission from the Research and Technology Transfer Core-process of Addis Ababa City Administration Health Bureau for ethical and scientific approval (Annex B) to conduct the proposed research. The proposed research and data collection instruments were also submitted to get the approval. The researcher started data collection after getting a support letter from the health bureau. The support letter was submitted to the selected hospitals and institutions as well as the organisations in which the key informants were currently working.

### **3.4.2 Informed consent**

Informed consent is an “ interactive process in which an individual or his or her parent or surrogate voluntarily agrees to join a study after the purpose, risks, benefits and alternatives have been thoroughly described and understood” (Marshall 2006:25).

The informed consent form (Annex C) has necessary information about the purpose of the study and explains in plain language that participants have an absolute right to defer the participation in the study. In addition, Creswell (2014:96-97) notes that informed consent should identify: (1) the researcher; (2) sponsoring institution (if any); (3) purpose of the study; (4) benefits for participating; (5) level and type of participant involvement; (6) risks to the participant (if any) (7) guarantee the confidentiality of the participant; (8) assurances that the participant can withdraw at any time; and the provisions of names of persons to contact if questions arise. Finally, willing participants must sign the form before the data collection process starts.

As a result, the researcher’s informed consent forms (both for the first and second phase of the study, requested the written approvals from each participant before they could get involved in the study. The researcher also respected the respondents’ right to abstain from participation or withdraw from the study at any time without reprisal.

### **3.4.3 Subject confidentiality and anonymity**

The researcher strove to respect the privacy and dignity of the study participants. As a result, he kept the participants’ confidentiality and anonymity throughout the research process. Different strategies were employed to protect the participants’ confidentiality and anonymity. These strategies include, using codes, rather than names, to identify each

questionnaire, data collectors training on research ethics, and ensuring that there is limited access of data by protecting the data through the use of passwords.

#### **3.4.4 Potential risk and benefit**

No harm or adverse events were expected from this study. However, there was potential that respondents might feel discomfort and fear to rate openly their level of satisfaction and empowerment as well as their supervisor genuine leadership style. In addition, patients could experience the same discomfort as health workers. Therefore, the researcher and data collectors assured all respondents that their responses were strictly confidential.

Respondents did not garner any direct financial or in-kind benefits from this study. There could be indirect benefits from the study though as the findings of this study will finally be communicated to all hospitals involved in the study. That is, the findings might contribute to the set of actions which will help to improve health workers' satisfaction and empowerment, organisational patient safety culture and patient experience of quality of health care. Generally, this research will help hospitals to improve effectiveness of hospital leadership and not offer any direct financial benefits to the participants.

#### **3.4.5 Ethical issues related to sampling and data collection**

The researcher took caution and applied the scientific principles of ethics in each phase of the study including selecting the participants. The researcher applied the scientific principles of sample size calculation and outlined the steps to be followed to reach the study participants. The researcher strictly followed the blue print as outlined above. In addition, the exclusion and inclusion criteria were followed as they are written.

On the data collection phase, the researcher, data collecting supervisors and data collectors discussed the day to day encounters during the time of data collection and collectively found remedies for encountered challenges. This aimed at enforcing the application of ethical principles during the time of data collection.

### **3.5 DATA MANAGEMENT AND ANALYSIS**

For phase one study, data collected were checked for consistency and completeness. The completed data were appropriately coded and the source code was maintained for cross reference in case questionnaires were later needed. Then the data was entered to EPI Info 7.2 Software, and transferred to SPSS Version 25. Double entry data were implemented to minimise data entry error. After checking consistency, data were

cleansed and became ready for analysis. The researcher hired a statistician who helped to analyse the data.

Before the health worker data were aggregated for analysis, certain criteria were used. The within-group variance (The within-group inter-rater agreement) was measured by rwg; the between group variance by two criteria: Intra-class correlation coefficient 1 and 2 (ICC1 and ICC2). The collected data was stored in researchers' personal computers and master data files were protected by pass word to promote confidentiality and unauthorised access. The paper filled questionnaire was kept in a secured file cabinet. The data (both computer and paper based) will be maintained for five years.

Later on, descriptive analysis in the form of Table, frequency, mean, standard deviation, and bivariate and multivariate analysis consisting of Z test, logistic regression, multiple regressions, structural equation modelling, and principal component analysis, were performed. The analysis focused on the objectives of this study.

For phase two study, the interview data were transcribed in verbatim by one of the researches assistants, then texts were translated into English and entered in the Atlas.ti qualitative data analysis software. Data were analysed using qualitative thematic and framework analysis. The researcher identified hospital leadership strategic themes, which help to improve health worker satisfaction and empowerment, patient safety culture and quality of health care. The framework analysis assists to classify and summarise data within a thematic framework

The researcher read the transcribed notes and audio records to familiarise himself with the contents and then went on to start the coding process. Coding is "the process of organizing the data by bracketing chunks and writing a word representing a category in the margins" (Creswell 2014:200). Codes were categorised, and themes created based on the objective of the analysis: recommending hospital leadership strategies to improve patient safety culture, health worker empowerment and satisfaction, and quality of health care.

Phase three triangulated phase two studies and presented the final strategy document on effectiveness of hospital leadership.

### **3.6 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY**

The study should reflect the situation in the real world in order to generalise the findings of any study, particularly in quantitative studies, beyond the setting of the study. Validity

is concerned with the soundness of the research design and methods. Internal and external validity are a point of discussion here. Internal validity reflects whether the study is free from errors and any difference in measurement is due to independent variables only; whereas external validity reflects the generalisability of the study findings to other settings or the world at large (Walliman 2011:104). As a result, two general areas in quantitative data analysis can go into error owing to both the quality of the measures in collecting the data and the implementation of those measures or the data collection process itself (Berar *et al* 2011:161-165).

### **3.6.1 Phase one study**

Data instruments must be valid and reliable. Validity and reliability are the psychometric properties of the data collection instrument by which we measure the adequacy and accuracy of our measurement instruments. Measurement tests must be valid and reliable as they measure the true meaning of the intended and rightful responses in a consistent manner (Bhattacharjee 2012:55-58):

**Validity:** often called construct validity, refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure.

**Reliability:** is the degree to which the measure of a construct is consistent or dependable. Three self-administered questionnaires and another interviewer administered tools were utilised in phase one of this study. All the four questionnaires in phase one study are a known tool whose validity and reliability are tested; and they are also extensively used in other studies. The three tools (health workers job satisfaction and empowerment, and patient experience of quality of health care) are free and publicly available ones. The researcher purchased the MLQ5x tool from the responsible bodies for use in the study. Furthermore, the validity and reliability of tools were strengthened by pre-testing the questionnaires at a similar hospital.

### **3.6.2 Phase two study**

In phase two of study, trustworthiness, rather than validity and reliability, is the concern of qualitative study. Trustworthiness focuses on the ways in which qualitative researchers ensure that transferability, credibility, dependability, and conformability are evident in their research (Given and Saumure 2012:1). Houser (2015:393-395) explains the concepts as follows:

**Transferability:** it equates with external validity in quantitative research. It answers whether results can be transferred to a situation with similar subject and settings.

**Credibility:** equates with internal validity and answers whether the results of the study represent the realities of the participant as much as possible.

**Dependability:** equates with reliability and answers whether repetition of the study with similar subjects in similar circumstances results in consistent findings.

**Conformability:** equates with objectivity and any attempt taken by the researcher to reduce bias in methods and procedures.

The researcher prepared an interview guide (Annex H), in phase two of the study, using the prevailed information in phase one and extensive literature review. The interview guide was tested with respondents of similar experiences and interests of the study group. An interview guide, reworked to incorporate results from the pre-test, was utilised to make in-depth interviews. The researcher used different techniques, such as the prolonged engagement and member checking, to improve the validity of phase two research (Houser 2015:394-395). The researcher also engaged himself immensely in the interview guide preparation, data collection, data analysis and write up (prolonged engagement). The transcribed and translated data were sent to the interviewees to check whether the data was accurately transcribed and translated, this is called member checking.

### **3.6 CONCLUSION**

This chapter outlined the road map of the research process. The key methodological elements outlined here are the: the research paradigm (this study's paradigm is pragmatism and the research approach is mixed method), sampling and sampling strategy; data collection methods; data analysis and management; ethical consideration; and external and internal validity of the research. The researcher also outlined each of the three phases of the study.

## **CHAPTER 4**

### **ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESEARCH FINDINGS**

#### **4.1 INTRODUCTION**

This chapter presents the findings from phase one and phase two of the study. The purpose of this study was to explore and propose strategies to improve effectiveness of hospital leadership in order to enhance quality of health care provided in hospitals through improving health workers' empowerment, job satisfaction and patient safety culture. The specific objectives of this study were:

1. To assess leadership style (transformational, transactional and laissez- faire) of leaders and managers in public and private hospitals in Addis Ababa.
2. To measure health workers' empowerment, job satisfaction and patient safety culture in public and private hospitals in Addis Ababa.
3. To assess patients' perception of quality of health care provided in public and private hospitals in Addis Ababa.
4. To assess the effect of hospital leaders' transformational, transactional and laissez-faire/ineffective leadership style, on health worker empowerment, job satisfaction, patient safety culture and patients' perception of quality of health care.
5. To assess the effect of health workers' job satisfaction, structural and psychological empowerment on patient safety culture.
6. To explore factors affecting hospital leadership effectiveness, health worker job satisfaction and empowerment, patient safety and quality of care in Addis Ababa hospitals.
7. To formulate strategies for improving effectiveness of hospital leaders and managers in Addis Ababa.

Effectiveness of hospital leadership is measured from the perspective of improved job satisfaction, patient safety culture, empowerment and patient experience of quality of health care (as measured by patient satisfaction). Hospital managers' leadership style is also measured using the full range leadership model, which categorises leadership styles into the transformational, transactional, and lasses faire/ineffective leadership).

#### **4.2 DATA MANAGEMENT AND ANALYSIS**

The methods and procedures followed during data collection, entry, and analysis are

described below.

#### **4.2.1 Data collection and management**

The researcher requested approval from the Addis Ababa Regional Health Bureau. The bureau reviewed the proposal and suggested that the study should primarily focus on Addis Ababa as data is collected from hospitals in Addis Ababa and the findings may not be applicable to hospitals of entire country. The researcher agreed to modify the name from “Strategies to improve effectiveness of hospital leadership in Ethiopia” to “Strategies to improve effectiveness of hospital leadership in Addis Ababa.” Thereafter, the researcher was granted ethical approval letters for four public and 8 private hospitals. Finally, data was collected from three public and six private hospitals.

The researcher bought the multifactor leadership questionnaire from the company and got a license to reproduce it. Then, the researcher, having received ethical approval from the Addis Ababa Regional Health Bureau Research and Ethics Office (Annexure B), went to one of the public hospitals, explained the purpose of the study to chief executive officer and medical director, and pre-tested the questionnaire.

The pre-test involved the distribution of 10 leadership and 30 health worker questionnaires. Patient questionnaires were also distributed to 10 patients at exit. The patient questionnaire had no section for any comment as all items were clear for interviewees. However, it was observed that one item was repeated on the leadership questionnaire and the repeated item was replaced. Otherwise, there was no ambiguity or difficulty on understanding this questionnaire. On health worker questionnaire, the researcher understood from the pre-test that the questionnaire would take much time to fill as it consists of numerous items. The researcher learned that the data collection time would take longer than the planned 7 weeks’ time. In addition, some repeated items were removed and replaced by the correct ones. The Likert scale key was written on each page of the questionnaire after pre-testing. An appropriate Likert Scale was re-introduced as the communication sub category had initially been mistakenly labelled with strongly disagree /strongly agree Likert scale. Thus, but after the pre-test, the Likert Scale was corrected with never/ always scale.

After the pre-testing, the researcher corrected data collection tools, and approached three public and six private hospitals in Addis Ababa: the six private hospitals were drawn using the simple random sampling technique.

Data was collected by the researcher, assisted by three data collectors and one data manager. Extensive training was provided by the researcher to the three data collectors and data manager before commencing the data collection. The researcher, in collaboration with the data manager approached all those nine hospitals, contacted the chief executive officers/managers individually and explained the purpose of the study. Conversations were also held with hospital matrons, and major department heads to explain the purpose of the study.

Statistics of the total number of health workers and those on leadership positions were requested from each hospital before starting data collection. These statistics were used to determine the study participants from each hospital. The data collectors distributed health worker's questionnaires to department heads so that they could communicate and give for each health workers. On average, it took one month to collect health worker questionnaires from each hospital. Finally, the health worker questionnaires distribution went along with the leadership instruments were distributed to leaders of hospitals.

Data collectors interviewed patients from nine hospitals consisting of three public and six private hospitals. Proportions of patients taken from each hospital were based on their size and patient flow. Two hospitals had a very low patient flow and it took much time to collect adequate patient samples. The researcher, in collaboration with the data manager, were rigorously following the day to day data collection process by making a daily briefing with the data collectors. In addition, the researcher frequently communicated with the chief executive officers, medical directors, matrons and department heads to encourage them to persuade individual participants to complete the questionnaires appropriately and on time.

#### **4.2.2 Data analysis**

The three data templates (health workers, patients and hospital leaders) were prepared by EPI version 7.2.2.6 and data entry completed using the same software. The EPI info was selected because it is easier to enter the data with minimal error. Each questionnaire was coded before entering into EPI info for easy tracking of data entry and to hasten cross checking. The coded items in the three questionnaires were entered as data accordingly. The completed data entry was followed by an exportation of the three data sets from EPI info to Excel sheet, and then to the SPSS version 25. Thereafter, data was cleaned, checked for consistency by sorting each data items, some variables such as age verified and the whole data sets checked.

The researcher reviewed multiple imputation and expectation maximisation methods in order to manage the missing data. In multiple imputations involves the replacement of data by a set of different values, which contain the natural variability and uncertainty of the correct values instead of replacing the missing variable with a single value. The missing values are then replaced by a set of options and these options create different data sets. The natural variability of the missing data is kept by replacing different imputed data that is predicated by those existing data and correlated with the missing data (Kang 2013:1-6; Rezvan, Lee and Simpson 2015:4). In expectation maximisation method, parameter of interest is estimated based on the estimated mean and covariance matrix of the available data set. It uses two steps, which are the expectation and maximisation step, with both methods repeated various times until maximum likelihood estimates are achieved. The assumption behind this method is that data is missed at random and maximum likelihood data is replaced based on the available data sets (Soley-bori 2013:8).

A total of 2124 health workers were working in 20 private hospitals before a year of this data collection. Two of the 20 private hospitals downgraded their status and one was closed during the time of data collection. Health worker data for public hospitals were requested from the Addis Ababa Regional Health Bureau and a total of 1644 eligible health personnel were working, at the time of data collection. Proportional allocation was used to allocate 277 health workers allocated for public hospitals while the remaining 357 was allocated for private hospitals.

Patient allocation for public and private hospitals was planned based on the last three months statistics before the time of data collection. The researcher learned that patient admission is low in private hospitals than in the public ones and as such, he decided to take half of the patients from the three public and the remaining half from those six hospitals. Even with such adjustment, it was difficult to get adequately study participants from private hospitals. Half of patient sizes were taken from six hospitals.

Health workers from individual hospital were again taken proportionately based on the number of health workers each hospital have.

Accordingly, a total of 542 health workers and 532 patient completed data retrieved during the time of data collection, making the aggregate response rate 86 % and 82% respectively.

### 4.2.2.1 Response rates

Individual hospital response rate for health workers and patients is depicted in the following table.

**Table 4-1: Health worker and patient response rate of individual hospitals**

Hospitals	Health worker data			Patient data		
	Total sample size	Return (N)	Return %	Total sample size	Return (N)	Return (%)
Hospital 1	95	71	75	102	75	74
Hospital 2	101	87	86	109	120	110
Hospital 3	81	98	120	88	95	107
Hospital 4	110	82	74	102	109	106
Hospital 5	62	38	61	55	33	60
Hospital 6	39	26	67	34	33	97
Hospital 7	47	63	134	39	30	77
Hospital 8	38	33	87	37	16	43
Hospital 9	61	44	72	33	21	64
<b>Total</b>	<b>634</b>	<b>542</b>	<b>86</b>	<b>599</b>	<b>532</b>	<b>82</b>

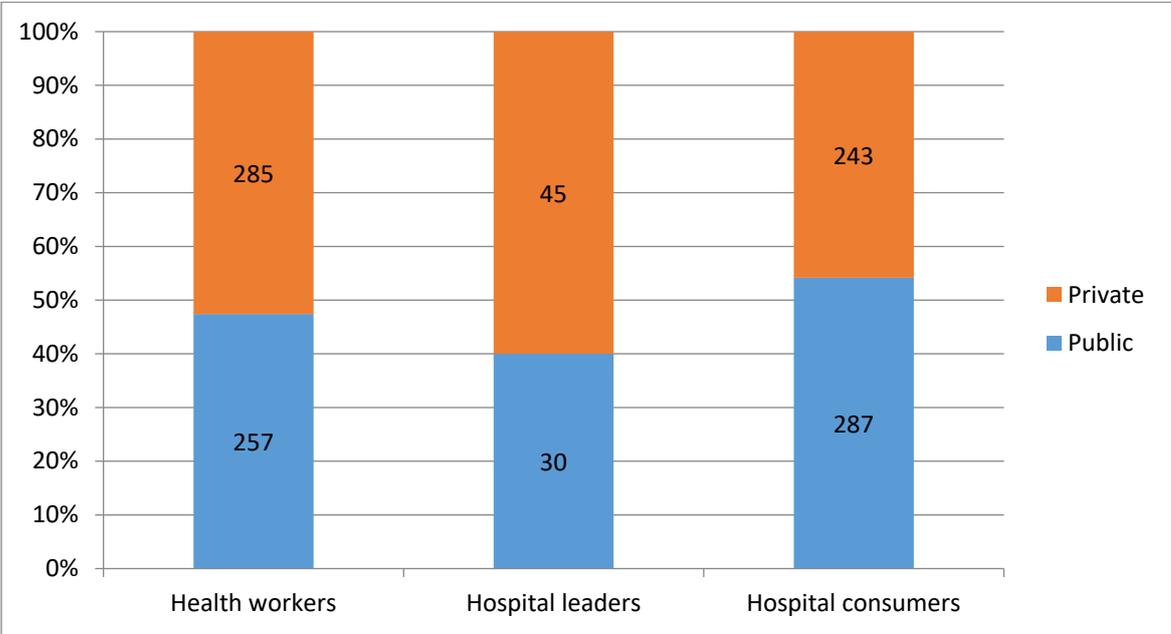
***N.B: hospital1, 2, and 3 are public hospitals, the remaining are private hospitals.***

Table 4.1 shows the first three as the public hospitals and the other six as private ones. The individual hospital response rate for health workers varied from 61% to 120% while the patients' response was from 43 % to 110%.

All leaders in the nine hospitals were enumerated, and leadership questionnaires distributed. A total of 88 leadership questionnaires were distributed and 75 completely filled questionnaires were retrieved, which resulted in an aggregate response rate of 86%. The response rate of each hospital varied from 61% to 100%. In addition, a total of 542 health workers, 532 patients and 75 hospital leaders gave their responses. A total of 257 (47.4%) and 285 (52.6%) health workers were from public and private hospitals, respectively. The proportion for patients was 289 (54.2%) from public hospitals and the remaining 243 (45.6%) were from private hospitals. Finally, the proportion for hospital leaders shows that those from public hospitals constituted 30 (40%) while the remaining 45 (60%) were private hospital leaders.

**Table 4-2: Hospital leader’s response rate of individual hospitals**

Hospitals	Total leadership sample size	Return(N)	Return (%)
Hospital 1	13	8	61
Hospital 2	13	13	100
Hospital 3	13	9	69
Hospital 4	12	12	100
Hospital 5	7	6	86
Hospital 6	7	6	86
Hospital 7	8	8	100
Hospital 8	9	8	88
Hospital 9	6	5	83
<b>Total</b>	<b>88</b>	<b>75</b>	<b>86</b>



**Figure 4-1: The proportion of respondents from public and private hospitals (Health workers, Patients and Hospital leaders)**

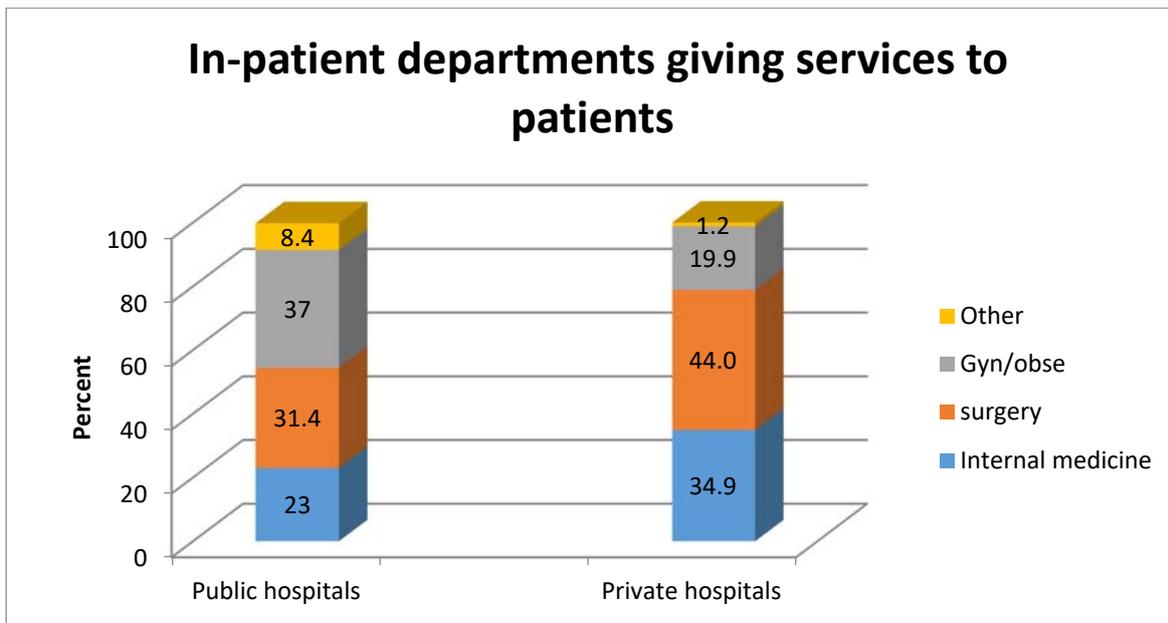
Health workers’ and patients’ response rate at the unit (department) level was also analysed. Health workers from 14 units (departments) are included in the study. The results are total of 542 patients completed the questionnaire at their exit. Patients were taken from the three major in-patient departments (all general hospitals are supposed to have all these departments). In aggregate (both public and private hospitals), patients got

in-patient services from surgical departments at the rate of 196 (37%); Gyn/obse department 154 (29%); and internal medicine 150 (28.5%).

Finally, figure 4.2 shows that 106 (37%) patients received in patient Gyn/obs services from public hospitals while 106 (44%) patients got surgical care from private hospitals during the time of data collection.

**Table 4-3: Health workers' response rate within hospital units between public and private hospitals**

Units (departments)	Public hospitals		Private hospitals		Total	
	N	%	N	%	N	%
No specific unit	5	1.9	7	2.5	12	2.2
Emergency unit	32	12.4	16	5.6	48	8.9
Internal medicine	22	8.6	35	12.3	57	10.5
Surgery	48	18.7	49	17.2	97	17.9
Obstetrics/Gyn	16	6.2	19	6.7	35	6.5
Paediatrics	10	4.0	11	3.9	21	3.9
ICU	15	5.8	28	9.8	43	7.9
Psychiatry	1	0.4	1	0.4	2	0.4
Pharmacy	16	6.2	20	7.0	36	6.6
Laboratory	18	7.0	18	6.3	36	6.6
Radiology	4	1.6	11	3.9	15	2.8
Anaesthesiology	7	2.7	2	0.7	9	1.7
OPD	27	10.5	17	6.0	44	8.1
Other	25	9.7	39	13.7	64	11.8
Unknown	11	4.3	12	4.2	23	4.2
<b>Total</b>	<b>257</b>	<b>100</b>	<b>285</b>	<b>100</b>	<b>542</b>	<b>100</b>



**Figure 4-2: Proportion of admitted patients who receive services from in-patient departments**

### 4.3 SOCIO DEMOGRAPHIC VARIABLES

Socio demographic variables were captured in the three different data sets using the variable age, gender, education, and marital status. Health worker and leadership questionnaires considered and matters related to level of experiences such as total experience, experience in this hospital and experience in current work unit/position. Finally, one's type of profession was captured in the health worker questionnaire.

**Table 4-4: Socio demographic characteristics of respondents**

Variables	Public hospitals						Private hospital					
	Health workers		Hospital leaders		patients		Health workers		Hospital leaders		Patients	
	N	%*	N	%*	N	%*	N	%*	N	%*	N	%*
<b>Gender</b>												
Male	102	39.7	20	66.7	99	34.5	93	32.6	21	46.7	117	48.1
Female	140	54.5	8	26.7	187	65.2	178	62.5	21	46.7	126	51.9
<b>Age (years)</b>												
18-29	129	50.2	4	13.3	119	41.5	119	41.5	7	15.6	69	28.4
30-39	91	35.4	17	56.7	63	22	63	22.6	19	42.2	72	29.6
40-49	29	11.3	8	26.7	30	10.5	30	10.5	9	20	38	15.6
50-59	8	3.1	1	3.3	25	8.7	25	8.7	9	20	21	8.6
>=60	-	-	-	-	50	17.4	50	7.4	1	2.2	43	17.7
<b>Marital Status</b>												
Single	125	48.6	50	7	23.3	17.4	138	48.4	7	15.6	57	23.5
Married, separated, divorced and widowed	109	42.4	237	20	66.7	82.6	117	41.1	36	80	185	76.1
<b>Experience as health worker (Year)</b>												
1-5	118	45.9	3	10	-	-	148	51.9	6	13.3	-	-
6-10	91	35.4	8	26.7	-	-	90	31.6	11	37.8	-	-
11-15	15	5.8	10	33.3	-	-	14	4.9	9	20	-	-
>=16	33	12.8	9	30	-	-	33	11.6	19	42.2	-	-

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**Level of education**

Illiterate	-	-	-	-	48	16.7	-	-	-	-	25	10.3
Can read and write	-	-	-	-	34	11.8	-	-	-	-	16	6.6
Up to 8 <sup>th</sup> grade	-	-	-	-	72	25.1	-	-	-	-	33	13.6
Secondary school (9-12)	-	-	-	-	80	27.9	-	-	-	-	61	25.1
Certificate and diploma	44	17.1	-	-	29	10.1	58	20.4	-	-	34	14
College Degree	166	64.6	20	66.7	21	7.3	191	67	32	71.1	58	23.9
MSC/MPH/MA/Phd	12	4.7	7	23.3	2	0.7	4	1.4	10	22.2	15	6.2
(MD+Specialist)	20	7.8	3	10	-	-	21	7.4	3	6.7	-	-

**Profession**

Medical doctor	17	6.6	-	-	-	-	9	3.2	-	-	-	-
Specialist physician	10	3.9	-	-	-	-	22	7.7	-	-	-	-
Nurse	158	61.5	-	-	-	-	171	60	-	-	-	-
Laboratory professional	17	6.6	-	-	-	-	17	6.0	-	-	-	-
Pharmacy professional	15	5.8	-	-	-	-	21	7.4	-	-	-	-
Radiology professional	4	1.6	-	-	-	-	8	2.8	-	-	-	-
Other	22	8.6	-	-	-	-	26	9.4	-	-	-	-

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*N.B: \* The percentage in most of the variables do not add up to 100 as there were missing values.*

#### **4.3.1 Gender**

Female health workers from both public and private hospitals were the major respondents as 54.5% were from the public while 64.5% of were from the private hospitals. On the contrary, male hospital leaders from public hospitals constituted the majority of the response at 66.7%. Otherwise, patient respondents were comparable in terms of gender both in the public and private hospitals.

#### **4.3.2 Age**

The average age of health worker respondents was comparable and 31.7 year (SD=7.2) and 30.8 years (SD=8) in public and private hospitals, respectively. Leaders in private hospitals were older by 2 years at an average age of 39.5 years while that of those in public hospitals was 37.7 years. The patients in private hospitals were older at an average 41.4 years while those from the public hospitals had an average age of 38.6years. However, the age group difference is not statistically significant. In addition, half of the health worker respondents 129 (50.2%) in public hospitals were in the age group 18-29 compared to 119 (41.5%) in private hospitals. Finally, a majority of the patients, 63.5% in the public hospitals and 58% in the private, were younger than the age of 40 (18-39 years), during the time of data collection.

#### **4.3.3 Work experience**

Both the health workers' and hospital leaders' work experiences were measured. In both public and private hospitals, 8 out of 10 health worker respondents' total experience were less than 10 years with the statistics standing at 80% in public hospital and 82% in private hospitals. Almost nine out of 10 leaders (89.1%) from private hospitals had less than 10 years of total experience compared to 8 out of 10 (80%) in public hospitals.

#### **4.3.4 Education**

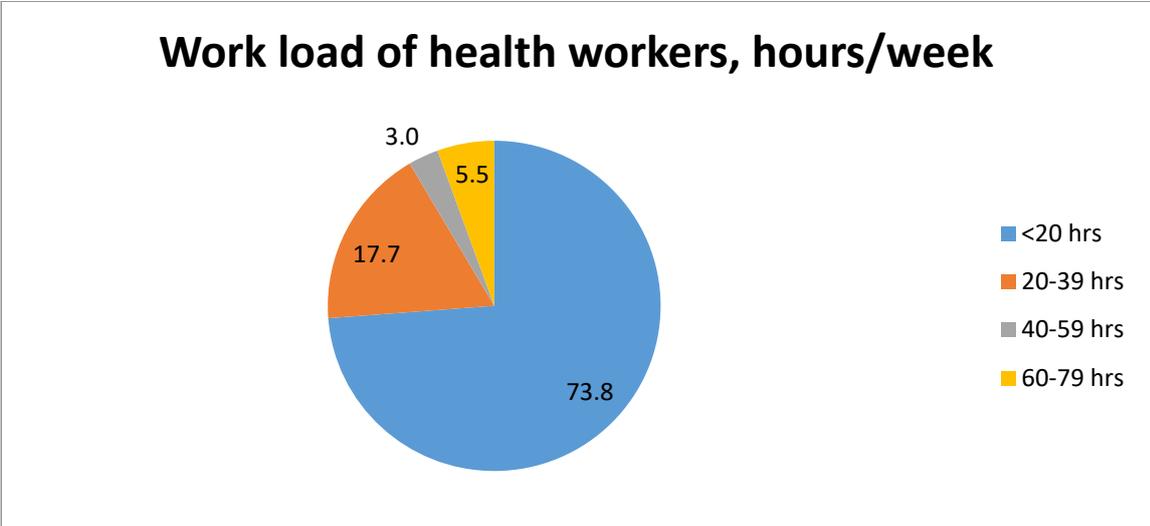
More than six out of 10 health workers from public and private hospitals were degree holders: 166 (64.6%) and 191 (67%), respectively. The same is true for hospital leaders where more than two out of three hospital leaders were degree holders and specifically standing at 66.7% in public hospital leaders and 71.1% in private hospital leaders. Private hospital patients were more educated compared to their counterparts in public hospitals. As a result, 107 (44.1%) patients in private and 52 (18.1%) of those in public hospitals had certificate or diploma qualifications and above.

**4.3.5 Profession**

The type of profession was only reported health workers. Six out of 10 respondent health workers were nurses both in public and private hospitals with the specific results showing 158 (61.5%) in public and 171 (60%) in private hospitals.

**4.3.6 Work load of health workers**

A measurement of the health workers' work load on an hours/week rate was requested. The analysis of responses shows that nine out of 10 health workers worked were less than 39 hours/week.



**Figure 4-3: Work load of health workers both in private and public hospitals**

**4.4 DATA AGGREGATION**

**4.4.1 Health workers' data aggregation**

Data from hospital leaders and patients collected in this study was analysed based on the assumption that both data is not nested in a hierarchy and does not need the assumption of multilevel modelling. However, data from health workers was treated hierarchical and a certain assumption was made before aggregating individual level data to unit and hospital levels. Data from health workers is considered hierarchical because the culture and context of each unit and hospital could affect the result at the individual level. It should also be noted that while individual level data is the same and one, the

aggregation of the data at the unit and higher level may give different meanings or relationships at a different level. Therefore, it is necessary to give justification to aggregate the individual level data to unit or higher level.

Chan's composition model provides a framework to justify data aggregation in multilevel research. The model has five typologies of the composition and the researcher chose the direct consensus model, where the individuals within a unit/group will share common perceptions (consensus) that determine the attributes of those individuals. In the direct consensus model, constructs that would have been operationalised and conceived at the lower level are isomorphic (functional and relationship similarity) with other constructs at the higher level. This method uses within-group consensus at the lower level units to aggregate for the higher level (Chan 1998: 234-246).

In multilevel analysis, three statistical techniques may be used to aggregate data from individual to unit and organisation level: within-group inter-rater agreement (rwg), intra-class correlations (ICC), and within and between analysis (WABA). Each of this has their own purposes to fulfil the aggregation process (Dixon and Cunningham 2006:91).

Most leadership literatures employ within-group inter-rater agreement (rwg) and Intra-class correlations (ICC). The researcher used both criteria to decide on the result of aggregated data to represent at unit and hospital level (Biemann, Cole and Voelpel 2012:66-80). James and his colleagues define, mathematically, within group inter-rater agreement on single and multiple items. It denotes the degree of agreement respondents scores within a group (Dixon and Cunningham 2006:91).

The within-group variance (the within-group inter-rater agreement) was measured by rwg. It is a measure calculated by comparing the observed group variance to the expected random variance (O'Neill 2017:3):

$$r_{wg} = 1 - \frac{S^2X}{S^2EU}$$

Where:  $S^2X$  is the mean of observed variance of that variable,  $S^2 EU$  is the expected variance under uniform null distribution. In order to establish sufficient consensus and justify aggregation, the within group agreement index should be greater than 0.7 under a uniform null distribution. LeBreton et al provide an equation to calculate  $r_{wg}$ , or aggregate

index for multi-item scales. It accounts for differences in  $r_{wg}$  weights between scales of a few versus many items (LeBreton, James and Lindell 2005:243-248):

$$r_{wgj} = J(1 - S^2X/ S^2EU )/[J(1 - S^2X/ S^2EU ) + (S^2X/ S^2EU)].$$

This formula calculates within group agreement. It specifically addresses multiple items scales and minimizes the overestimation of inter rater- agreement.

The researcher measured “between group variance” using two indices: ICC (1) and ICC (2). Intra class correlation coefficient or ICC (1) is the proportion of response variance at the individual level but accounted by group (shared) level attributes: how much the individual response is affected by group behaviours or attributes; or the degree to which the measure varies within and between groups. It is calculated using the following formula, and the variables in the formula are derived by one-way ANOVA.

$$ICC (1) = \frac{MSB-MSW}{MSB+ [(k-1) +MSW]}$$

Where MSB is the between-group mean square, MSW is the within-group mean square, and k is the number of individuals in each group. Data aggregation is supported if ICC (1) values would lie between 0.02 and 0.5; or if the F test is significant in one way ANOVA(Dixon and Cunningham 2006:92).

ICC (2) denotes how much group means are reliable while variables are aggregated. It is measured by:

$$ICC (2) = \frac{MSB-MSW}{MSB+MSW}$$

For data aggregation, ICC (2) values greater than 0.7 is acceptable, between 0.5 and 0.7 marginal and less than 0.5 is poor (Dixon and Cunningham 2006:95).

The researcher calculated within-group inter-rater agreement for j groups ( $r_{wgj}$ ), and intra-class correlation coefficient (ICC1 and ICC2) for health worker instrument. Generally, the health worker instrument has three major areas, which are health worker satisfaction, empowerment (both structural and psychological), and patient safety culture.

Table 4.5 shows  $r_{wgj}$ , ICC (1) and ICC (2), and along with list of variables and their

categories. F-Statistics were computed using the one-way fixed effect analysis of variance. Structural empowerment and hospital patient safety were measured by six and 12 different variables respectively as depicted in the table, and for each variable rwg, ICC (1) and ICC (2) were calculated.

The inter-rater agreement for each variable (rwg) showed a range from 0.68 to 0.85. Only two variables in patient safety, where staffing was 0.68 and hospital handoffs and transitions recorded 0.69, fell slightly below the acceptable cut of point 0.7. This confirms that the measurement scales had acceptable within group inter-rater agreement.

The between group agreement and consistency of variables at the unit and hospital level were tested using ICC (1) and ICC (2) respectively. F-statistics from One-way fixed effect analysis of variance demonstrated, at the variable level that, all variables were statistically significant ( $P \leq .001$ ), which also means that the ICC (1) values warranted aggregation of individual values to unit and hospital level. Almost all values of ICC (1) have a between 0.02 and 0.5 acceptable range for data aggregation.

An examination of ICC (2) (consistency, reliability, of variables at the unit and hospital level) produced different results. The value of ICC (2) above 0.7 is acceptable; 0.5-0.7 marginal; and less than 0.5 is poor. The ICC (2) values range from -0.4 to 0.92. Among the 20 variables, only 12 variables were above 0.7; six variables lay between 0.5 and 0.7; while the other two variables lay below 0.5. Accordingly, the researcher kept all variables and aggregated to the unit and hospital level as the majority of variables met the criteria to aggregate. In addition, almost all the rwg and ICC (2) values were within the acceptable range for aggregation.

#### **4.4.2 Leadership and patient satisfaction data aggregation**

Leadership and patient satisfaction data were directly aggregated without examining the criteria used to aggregate health worker data. The researcher assumed the unit level influence was minimal for these data sets.

**Table 4-5 : Unit level intra-class correlations (ICC1 and 2) and rwgj coefficients along with F statistics**

Variables category	Variables		rwgj	ICC (2)	ICC (1)	F-statistics for ICC(1)
<b>Health worker satisfaction</b>	Health worker satisfaction	worker	0.85	0.92	0.23	F(434,6960)=47.9;P<=.001
<b>Structural empowerment</b>	Opportunity		0.74	0.53	0.03	F(505,1012)=15.8;P<=.001
	Support		0.79	0.63	0.04	F(507,508)=7.6;P<=.001
	Information		0.73	0.84	0.12	F(509,1020)=26.4;P<=.001
	Resources		0.76	0.77	0.08	F(506,1014)=21.4;p<=.001
	Formal power		0.71	0.75	0.06	F(484,970)=132;p<=.001
	Informal power		0.73	0.71	0.05	F(482,14449)=123;p<=.001
<b>Psychological empowerment</b>	Psychological empowerment		0.77	0.84	0.07	F(454,5005)=303.6;p<=.001
<b>Patient safety</b>	Team work with units		0.78	0.72	0.06	F(518,1557)=61.9;p<=.001
	Staffing		0.68	0.56	0.03	F(518,1038)=78.4;p<=.001
	Organizational learning-continuous improvement		0.79	0.60	0.02	F(518,1038)=147.2;p<=.001
	Non-punitive response to error		0.76	0.62	0.04	F(518,1038)=8.4;p<=.001
	Overall perception of patient safety		0.71	-0.4	-0.01	F(517,1554)=16.3;p<=.001
	Supervisor/manager expectations and actions promoting patient safety		0.73	0.45	0.02	F(517,1036)=14.8;p<=.001
	Communication openness		0.75	0.72	0.06	F(517,1036)=14.8;p<=.001
	Feedback and communication about error		0.8	0.7	.06	F(517,519)=15; p<=.001
	Frequency of event reporting		0.78	0.76	0.08	F(518,1038)=8.2;p<=.001
	Hospital management		0.76	0.72	0.06	F(517,519)=22.9;p<=.001

support for patient safety

Team work across hospital units 0.75 0.54 0.03 F(518,1557)=3.96; p<=.001

Hospital handoffs and transitions 0.69 0.83 0.11 F(517,1554)=17.7; p<=.001

**N.B:** To calculate the  $r_{wgj}$ , the researcher used average unit size of 37

#### 4.5 RESULT I: LEADERSHIP STYLE OF PUBLIC AND PRIVATE HOSPITAL LEADERS IN ADDIS ABABA

This presents the results related to the first objective focusing on assessing the leadership style of both public and private hospitals. Data was collected from 75 leaders from both public and private hospitals. The researcher compared the different leadership styles (transformational, transactional and in-effective leadership) in the two major categories of hospitals: public and private. The outcomes from the measurement of hospital leaders for, effectiveness, extra effort and satisfaction were also measured and correlated with leadership styles.

##### 4.5.1 Characteristics of multifactor leadership questionnaire short form (5x)

The following table depicts the characteristics, scale names and the respective item numbers in the questionnaire

**Table 4-6: Multifactor leadership questionnaire short form (5 x) item categories**

Characteristics	Scale name	Scale abbreviation	Item number
Transformational	Idealised attribute	IA	10,18,21,25
Transformational	Idealised behaviours	IB	6,14,23,34
Transformational	Inspirational motivation	IM	9,13,26,36
Transformational	Intellectual stimulation	IS	2,8,30,32
Transformational	Individual consideration	IC	15,19,29,31
Transactional	Management exception active	MBEA	4,22,24,27
Transactional	Contingent reward	CR	1,11,16,35
Passive avoidant	Management exception passive	MBEP	3,12,17,20
Passive avoidant	Laissez-faire	LF	5,7,28,33
Outcomes of Leadership			

	Extra effort	EE	39,42,44
	Effectiveness	EFF	37,40,43,45
	Satisfaction	SAT	38,41

Every item was categorised into their respective categories, which are transformational, transactional and in-effective (passive) leadership. Transformational leadership had had five subclasses, which are idealised attributes, idealised behaviours, inspirational motivation, intellectual stimulation and individual consideration. Transactional leadership has two subclasses and these are contingent reward and management by exception active, while ineffective leadership has two subclasses as well, which are management by exception passive and lazes faire. Each subclass has constituted three to four items. Three composite leadership outcome measures are included in the MLQ questionnaire which measures extra effort, satisfaction and effectiveness. Table 4.7 reflects these measures.

#### 4.5.2 Leadership styles of public and private hospital managers

One of the objectives under focus in this thesis concerned itself with determining whether there is a difference between public and private hospital leaders' leadership style. Overall, hospital leaders considered themselves more transformational (M=2.98, SD=0.41) than transactional (M=2.85, SD=0.46). Their score on passive leadership were low (M=1.43, SD=0.87) compared to transformational and transactional leadership scores.

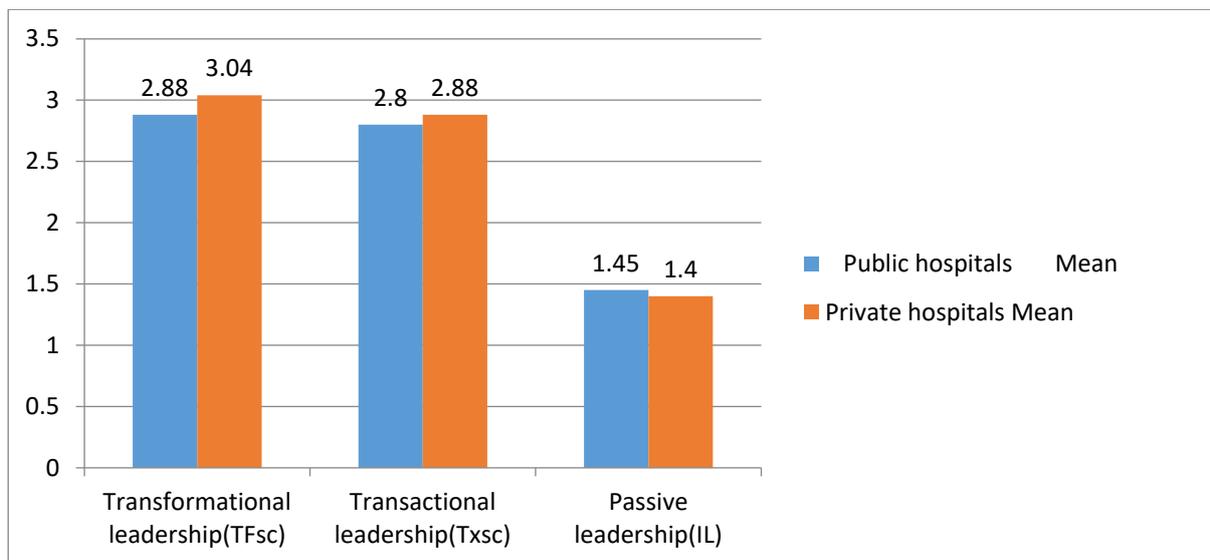
**Table 4-7: Scale and subscale means by hospital type: public vs. private**

Variable (scale and subscale)	Public hospitals		Private hospitals		Overall		P-value*
	Mean	SD	Mean	SD	Mean	SD	
<i>Transformational leadership (TF)</i>	2.88	0.49	3.04	0.35	2.98	0.41	0.820
Idealised attribute (IA)	2.50	0.77	2.62	0.69	2.57	0.72	
Idealised behaviours (IB)	2.91	0.61	3.13	0.56	3.05	0.60	
Inspirational motivation (IM)	3.13	0.56	3.20	0.54	3.17	0.55	
Intellectual stimulation (IS)	2.91	0.66	3.09	0.52	3.02	0.59	
Individual consideration (IC)	2.91	0.64	3.05	0.57	2.99	0.60	
<i>Transactional leadership (Tx)</i>	2.80	0.49	2.88	0.45	2.85	0.46	0.453
Management by exception active	2.54	0.77	2.67	0.59	2.62	0.67	
Contingent reward (CR)	3.06	0.41	3.10	0.60	3.08	0.53	
<i>Passive leadership (IL)</i>	1.45	0.88	1.40	0.87	1.43	0.87	0.094
Management by exception	1.74	0.87	1.66	1.08	1.69	0.99	

passive						
Laissez-faire	1.18	1.01	1.15	0.97	1.16	0.98
<i>Outcomes of Leadership</i>						
Extra effort (EE)	3.01	0.66	3.10	0.53	3.07	0.58
Effectiveness (EFF)	2.99	0.57	3.15	0.50	3.09	0.53
Satisfaction (SAT)	3.15	0.59	3.28	0.65	3.22	0.62

N.B: the range of Multifactor Leadership Questionnaire has five scales from 0 to 4 (0=not at all; 4=frequently, if not always). \*= P-values were computed using independent samples t-test

The leadership styles of both public and private hospitals' leaders had minimal difference. Private hospital leaders were slightly more transformational (M=3.04, SD=0.35) and slightly more transactional (M=2.88, SD=0.45) than their counterparts in public hospitals (M=2.88, SD=0.49 and M=2.8, SD=0.45, respectively). Passive leadership style was slightly more manifested in public hospital leaders than with the private ones (M=1.44, SD=0.88 vs. M=1.40, SD=0.87). However, the results from the t-test showed that the difference of leadership styles in the public and private hospitals were not statistically significant: P values of t-test were 0.820, 0.453 and 0.094 for transformational, transactional and passive leadership respectively.



**Figure 4-4: Comparison of public and private hospitals leaders leadership style score**

#### 4.5.3 Effect of socio demographic variables on hospital leaders' leadership styles

The researcher tested the effect of some demographic variables on hospital leaders' leadership styles. These variables are shown in Table 4.8 below.

Males were slightly more transformational (M=2.99, SD=0.36), more transactional (M=2.90, SD=2.83) and less passive (M=1.41, SD=0.80) compared to females (M=2.96, SD=0.48; M=2.83, SD=0.44; and M=1.55, SD=0.98, respectively). T-tests were run and the researcher found the differences were not statistically significant (P value=0.54, 0.56 and 0.76 for transformational, transactional and passive leadership respectively).

Generally those hospital leaders with second degree tended to have slightly greater score on transformational (M=3.02, SD=0.54) and transactional leadership (M=3.06, SD=0.43) compared to degree holders (M=2.98, SD=0.38 and M=2.80, SD=0.47) and specialist physicians (M=2.86, SD=0.31 and M=2.87, SD=0.45 respectively). Passive (in effective leadership) was more common among degree holder leaders (M=1.57, SD=0.87) than in those having second degree and specialist physicians (M=1.32, SD=0.98 and M=0.96, SD=0.54 respectively).

**Table 4-8: Relationship between hospital leaders' leadership style and socio demographic variables**

Demographic variables	Transform leadership		Transactional leadership		Passive leadership	
	Mean	SD	Mean	SD	Mean	SD
Gender						
Male	2.99	0.36	2.90	0.46	1.41	0.80
Female	2.96	0.48	2.83	0.44	1.55	0.98
Age category						
20-30 years	3.04	0.47	2.91	0.46	1.76	0.01
31-40 years	3.01	0.37	2.85	0.52	1.33	0.83
41-50 years	2.81	0.57	2.84	0.43	1.57	0.87
>=51 years	2.93	0.36	2.76	0.38	1.15	0.50
Education						
Degree	2.98	0.38	2.80	0.47	1.57	0.85
Msc/Mph	3.02	0.54	3.06	0.43	1.32	0.98
MD+Speciality	2.86	0.31	2.87	0.45	0.96	0.54
Total experience						
1-5 years	2.88	0.45	2.79	0.42	1.59	1.45
6-10 years	3.03	0.47	2.94	0.53	1.81	1.08
11-20 years	3.01	0.41	2.84	0.48	1.31	0.85
>=21 years	2.87	0.31	2.82	0.34	1.31	0.76

A one-way analysis of variance was run to compare the group mean differences of leadership styles in the three educational categories. The analyses showed that there were no statistically significance differences among the groups: transformational,  $F(3,65) = 0.565$ ,  $P = 0.64$ ; transactional  $(3,67) = 0.285$ ,  $P = 0.84$ ; and passive  $(3,59) = 1.31$ ,  $p = 0.28$ .

#### 4.5.4 Perceived outcomes of leadership between public and private hospitals leaders

Leadership outcomes were also measured based perceptions of leaders on their rate of effectiveness, how much extra effort they impart on their job and their satisfaction. The measurements showed that leaders from private hospitals considered themselves more satisfied (M=3.28, SD=0.65), more effective (M=3.15, D=0.5) and put more extra effort (M=3.1, D=0.53) than their public hospital counterparts (M=3.15, D=0.59; M=2.99, D=0.57; and M=3.01, D= 0.66 respectively). However, the difference did not achieve statistical significance at P-value 0.05.

**Table 4-9: outcomes of leadership in both public and private hospital**

Variable (scale and subscale)	Public hospitals		Private hospitals		Overall		P-value*
	Mean	SD	Mean	SD	Mean	SD	
<i>Outcomes of Leadership</i>							
Extra effort (EE)	3.01	0.66	3.10	0.53	3.07	0.58	0.61
Effectiveness (EFF)	2.99	0.57	3.15	0.50	3.09	0.53	0.28
Satisfaction (SAT)	3.15	0.59	3.28	0.65	3.22	0.62	0.23

\*= P-value is calculated by independent-samples Mann-Whitney U test

##### 4.5.4.1 Independent-Samples Mann-Whitney U test

Unlike in the above leadership styles, a t-test could not run for outcomes of leadership because the data distribution violated the basic assumption to run t-test test as the normality of data distribution and homogeneity of variance were not met. Hence, the researcher ran an Independent-Samples Mann-Whitney U test for the above leadership outcome data. The results showed that there was no significant difference between private and public hospital leaders in terms of outcome of leadership.

#### 4.5.5 Correlation between leadership styles and outcome of leadership

The Bi-variate Pearson correlation test was conducted to evaluate the relationship between leadership styles and outcome of leaderships. The researcher reported bootstrapped confidence intervals for leadership outcomes as a robust method of violation of normality and homogeneity of variance.

**Table 4-10: Correlation of leadership styles and outcomes of leadership**

Correlations (measured by Pearson correlation coefficient)						
	Transformational	Transactional	ineffective leadership	EE	EFF	SATT
Transformational	1.00					
Transactional	0.583**	1.00				
ineffective leadership	0.191	0.144	1.00			
EE	0.571**	0.453**	0.060	1.00		
EFF	0.488**	0.452**	0.043	.720**	1.00	
SATT	0.407**	0.376**	0.095	0.564**	.599**	1.00

**\*\*Correlation is significant at the 0.01 level (2-tailed)**

As stated in the above table, significant relationships existed between transformational leadership and transactional leadership. In addition, leadership outcomes were related to transformational leadership and transactional leadership styles. Passive (ineffective leadership) was not statistically related to outcomes of leadership and s with other leadership styles, both transformational and transactional.

A positive and moderate correlation existed between transactional and transformational leadership ( $r=0.583$ ,  $P<0.01$ ). Transactional leadership had significant ( $p<0.01$ ) and moderate correlation with the three leadership outcomes: extra effort, effectiveness and satisfaction ( $r=0.453$ ,  $0.452$  and  $0.376$  respectively). Transformational leadership had stronger relationship with these leadership outcomes at  $p<0.01$ : Pearson correlation coefficient( $r$ ) =  $0.571$ ,  $0.488$  and  $0.407$  respectively.

Relationships between leadership outcomes were also positive. The satisfaction of hospital leaders was positively and moderately related with their effectiveness ( $r= 0.564$ ) and the extra efforts they imparted ( $r=0.599$ ) at  $p$ -value $<0.01$ .

## **4.6 RESULT II: HEALTH WORKERS' JOB SATISFACTION, EMPOWERMENT AND PATIENT SAFETY CULTURE IN PUBLIC AND PRIVATE HOSPITALS IN ADDIS ABABA**

This section focuses on the results related to the second objective of the thesis: measuring health workers' job satisfaction, empowerment, patient safety culture, and patients' perception of quality of health care in the public and private hospitals in Addis Ababa. Patient perception of quality of health care is entertained in the coming section of the thesis. Here the researcher tries to answer the remaining part of the second objective.

### **4.6.1 Health worker job satisfaction in public and private hospitals**

A brief instrument prepared by Alpern, Maureen and Canavan et al (2013:1-8) has three major categories to measure job satisfaction of health workers in developing countries based on relationships with management and supervisors, job content and relationships with co-workers. The following table depicts the categories and items included under each category. All variables, except the last two, which measure the general job satisfaction have a 4-point Likert scale ranging from: 1-strongly disagree; 2- disagree; 3-agree; and 4-strongly agree. The last two measures sought to measure the general job satisfaction. The first variable, "I would recommend this health facility to other workers as a good place to work" has four response categories and these are: "1-definitely no; 2-probably no; 3-probably yes and 4-definitely yes". The last general job satisfaction measure, "How would you rate this health facility as a place to work on a scale of 1 (the worst) to 10 (the best)" has a continuum scale of: 1-worst hospital to work and 10-best hospital to work.

**Table 4-11: Description of the job satisfaction variables and their respective categories**

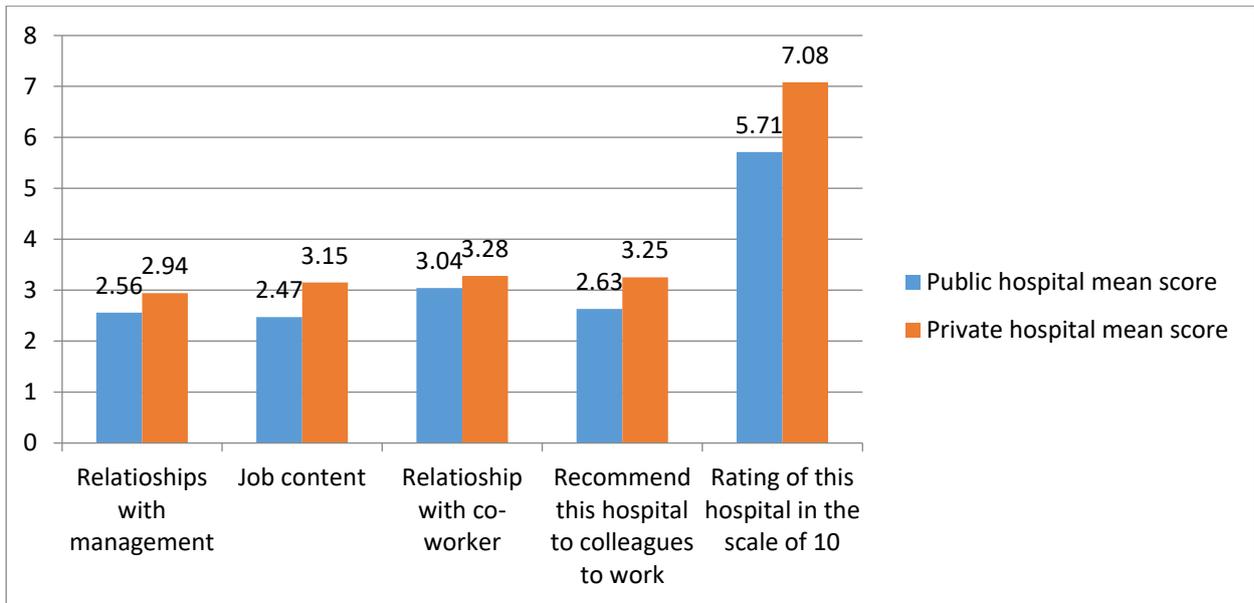
<b>Categories</b>	<b>Variables</b>	<b>Number of variables</b>
<b>Relationship with management and supervisors</b>	The management of this organisation is supportive of me.	10
	I receive the right amount of support and guidance from my direct supervisor.	
	I have learned many new job skills in this position	
	I feel encouraged by my supervisor to offer suggestions and improvements.	
	The management makes changes based on my suggestions and feedback.	
	I am appropriately recognised when I perform well at my regular work duties.	
	The organisation rules make it easy for me to do a good job.	
	I have adequate opportunities to develop my professional skills.	
	My work assignments are always clearly explained to me.	
	My work is evaluated based on a fair system of performance standards.	
<b>Job content</b>	I am satisfied with my chances for promotion.	5
	I have an accurate written job description.	
	The amount of work I am expected to finish each week is reasonable.	
	My department provides all the equipment, supplies, and resources necessary for me to perform my duties.	
	The buildings, grounds and layout of this health facility are adequate for me to perform my work duties.	
<b>Relationships with co-workers</b>	My co-workers and I work well together.	2
	I feel I can easily communicate with members from all levels of this organization.	
<b>General job satisfaction</b>	I would recommend this health facility to other workers as a good place to work.	2
	How would you rate this health facility as a place to work on a scale of 1 (the worst) to 10 (the best).	

The mean and standard deviation of the three variables (relationship with management and supervisors, job content and relationships with co-workers) for private and public hospital health workers were computed in the table below. The general job satisfaction levels were also computed.

**Table 4-12: Mean score of health workers’ general job satisfaction in public and private hospitals**

Variable	Public hospitals		Private hospitals		Overall		P-value
	Mean	SD	Mean	SD	Mean	SD	
Relationship with management	2.56	0.52	2.94	0.45	2.76	0.52	0.001
Job content	2.47	0.56	3.15	0.55	2.70	0.56	0.001
Relationship with co-worker	3.04	0.59	3.28	0.57	3.18	0.59	0.001
I would recommend this health facility to other workers as a good place to work	2.63	0.89	3.25	0.78	2.96	0.89	0.001
How would you rate this health facility as a place to work on a scale of 1(the worst) to 10(the best)	5.71	2.15	7.08	2.05	6.43	2.20	0.001

*P-value is calculated by independent-samples Mann-Whitney U test*



**Figure 4-5: Comparison of public and private hospital health workers' job satisfaction means scores**

As shown in the above table, health workers in private hospitals scored high in all the described variables, with relationship with management scoring, 2.76 vs. 2.56, job content, 3.15 vs. 2.47, and relationship with co-worker 3.28 vs. 3.04). The two general job satisfaction scales were also high for private hospitals' health workers than with their public hospital counterparts, which stood at 2.96 vs. 2.63, and 7.08 vs. 5.71.

#### **4.6.1.1 Independent-Samples Mann-Whitney and Median tests**

The Mann-Whitney and median tests were run to statistically test if there were a significant difference between the mean and median scores of relationships with management, job content, relationship with co-worker, and the other two variables of general job satisfactions measures. Both the Mann-Whitney and median tests showed that private and public hospital health workers had a statistically significant mean and median difference ( $P\text{-value} < 0.001$ ). Recommending a hospital for other health workers and rating the health facility also showed the same statistically significant difference between public and private hospital health workers ( $P\text{-value} < 0.001$ ).

**Table 4-13: Mann-Whitney and Median tests on the major job satisfaction categories and general job satisfaction variable between public and private hospital health workers, Sample size (N =539)**

Variables	Mann-Whitney U test		Median test		
	Test statistics	P-value	Median	Test statistics	P-value
Relationship with management	51572	0.001	2.8	54.71	0.001
Job content	51646	0.001	2.8	54.71	0.001
Relationship with co-worker	45074	0.001	3.00	20.57	0.001
I would recommend this health facility to other workers as a good place to work	50400	0.001	3.00	48.91	0.001
How would you rate this health facility as a place to work on a scale of 1(the worst) to 10 (the best)	49854.5	0.001	6.89	54.42	0.001

**4.6.1.2 Developing a model to predict job satisfaction of health workers in private and public hospitals**

The Bi-variate and partial correlation tests were run to determine the relationship between major job satisfaction categories and general job satisfaction scores. After running un-adjusted bi-variate correlation, a partial correlation was run between each job satisfaction category (relationship with management, job content and relationship with co-worker) with each variable of general job satisfaction. The Pearson correlation coefficients were bootstrapped as the data did not meet the two criteria: normal distribution of error variance and homogeneity of variance.

The relationship with management had a statistically significant and strong correlation with job content ( $r=0.767$ ) and moderate correlation with the relationship with co-workers ( $r=0.437$ ). It also had a moderate relationship with the two general job satisfaction scales ( $r=0.638$  and  $0.619$  with health workers’ recommendation of that hospital to colleagues and rating of that hospital, respectively). Controlling of the variables “job content and

relationship with co-workers”, the correlation between “relationship with management” and “recommend this hospital to colleagues” and “individual rating of that hospital” dropped (from  $r=0.638$  to  $0.327$  and  $r=0.619$  to  $0.322$ ). However, the relationship was still statistically significant at  $0.01$ .

Job content also had a statistically significant, moderate and positive correlation with co-worker ( $r=0.423$ ) and “recommend this hospital to colleagues” ( $r=0.579$ ) and “rating of the hospital by health workers” ( $r=0.578$ ). After controlling the other two job satisfaction categories (relationship with management and relationship with co-worker), the correlation between job content with the general job satisfaction scales became weak even though it was still statistically significant. This because the Pearson correlation coefficient dropped from  $0.579$  to  $0.163$  with “recommend this hospital to colleagues”; and from  $0.578$  to  $0.192$  with “rate this hospital”.

The variable, relationship with co-worker also had a statistically significant and moderate positive correlation with “recommend this hospital to colleagues” and rating of the hospital” with  $r=0.426$   $0.368$ , respectively. However, the correlation between relationship with co-worker and rating of the hospital lost as  $r$  became  $0.062$  from  $0.578$ , and yet it is statistically significant at  $P$ -value of  $0.05$ . Nonetheless, it still maintained its statistical significance with “recommending this hospital to colleagues” despite the fact that the relationship weakened as  $r$  changed from  $0.579$  to  $0.166$ .

Finally, the variable recommendation of the hospital to colleagues and rating of the hospital (in a scale of 10) had a moderate correlation ( $r=0.666$ ). In addition, this was statistically significant at  $P=0.05$ .

A model to predict job satisfaction of health workers was constructed using the outcome variable “How would you rate this health facility as a place to work on a scale of 1(the worst) to 10(the best)” and the predictor variables “relationship with management, job content and relationship with co-workers”. Hierarchical regression (in the first step, relationship with management entered to the model; in the second step, all three variables entered) was run using enter method.

**Table 4-14: Correlation of health workers' job satisfaction scales and sub-scales**

	Relationship with management	Job content	Relationship with co-worker	Recommend this hospital	Rate this hospital
Relationship with management	1.00				
Job content	0.767**	1.00			
Relationships with co-workers	0.437**	0.423**	1.00		
Recommend this hospital	0.638**	0.579**	0.426**	1.00	
Rate this hospital	0.619**	0.578**	0.368**	0.666**	1.00

\*\**Correlation is significant at the 0.01 level (2-tailed)*

All assumptions to run multiple regressions were checked before running the model. The relationship between outcome variables and predictors were checked for linearity. In addition, predictors were checked for multi-collinearity, normality of error variance, independence of errors, and homoscedasticity of error variance around a specific outcome scores and outliers (Field 2009:197-263). All the other assumptions, except normality and homoscedasticity, were met. Bootstrapped confidence intervals and significance values were estimated for violation of these two assumptions. The following table shows the parameters of the model.

**Table 4-15: Parameters of a multiple regression model to predicting job satisfaction of health workers both in private and public hospitals**

	<b>b</b>	<b>seb</b>	<b>β*</b>	<b>P-value</b>
<b>Step1</b>				
Constant	-0.86 [-1.67,0.07]	0.44		0.054
Relationship with management	2.64 [2.34,2.93]	0.15	0.62	0.001
<b>Step 2</b>				
Constant	-1.45 [-2.42,-0.37]	0.52		0.003
Relationship With management	1.76 [1.3,2.2]	0.23	0.41	0.001
Job content	0.88 [0.52,1.27]	0.19	0.24	0.001
Relationship with co-worker	-0.2 [-0.01,0.47]	0.14	0.054	0.148

Note.  $R^2 = .38$  for Step 1;  $\Delta R^2 = .41$  for Step 2 ( $P < .001$ ).

“Relationship with management” and “job content” have been predictors of general job satisfaction, as measured by rating of the hospital on a scale of 1-10 (both predictors are statistically significant at P-value 0.001). A standard deviation increments to the mean score of “relationship with management” (0.52-point increment) will result in 0.62 Standard deviation increment to the mean score of outcome variable (i.e.  $0.62 \times 2.2 = 1.36$ ). That means a 0.52 standard deviation increment of a predictor “relationship with management” will result in 1.36-point increment in the general job satisfaction scale. A unit standard deviation increment in the mean of predictor variable “job content” will result in a 0.24 standard deviation increment in the mean score of the general job satisfaction scale. That means a 0.56-point increment in the mean score of “job content” will result in a 0.56-point increment in the general job satisfaction scale. This model has predicted a 41% of variation in the outcome (general job satisfaction scale) at  $P < 0.001$ .

#### ***4.6.1.3 Relationship between socio-demographic variables and job satisfaction of health workers in private and public hospitals***

The general mean satisfaction and three variable categories for job satisfaction were calculated between public and private hospital health workers. Table 4.16 elaborates this.

##### ***4.6.1.3.1 Kruskal- wallis test***

An independent sample t-test (for gender) and Kruskal- Wallis tests were run to test whether there was a group mean difference in the socio-demographic variables. The researcher bootstrapped data for gender because the data did not meet the assumption of normal distribution. The Kruskal-Wallis test was run to determine the differences between mean scores of health workers' job satisfaction across other socio-demographic factors. The researcher failed to identify statistically significant mean differences in all socio-demographic variables (at P-value 0.05).

##### ***4.6.1.3.2 Binary logistic regression***

Binary logistic regression was run to test whether socio-demographic factors had influence on the general job satisfaction of health workers. The dependent variable "recommend this hospital for a colleague as a place to work" was converted into two response items: by combining "definitely no" and probably no in to negative response and the other two responses "probably yes" and "definitely yes" as a positive response. The independent (predictor) variables entered in hierarchical fashion. The predictors entered into the model were age, education level, category of profession, and total years of experience. The logistic regression model failed to show any statistically significant difference on the general job satisfaction level of health workers working in Addis Ababa hospitals (both private and public).

**Table 4-16: Relationship between socio demographic variables and job satisfaction scales**

Demographic variables	Relationship with management		Job content		Relationship with co-worker		Recommend this hospital to colleagues as a place to work		Rate this hospital in a scale of 1 to 10	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>Gender</b>										
1. Male	2.73	0.53	2.66	0.61	3.19	0.59	2.92	0.87	6.34	2.16
2. Female	2.79	0.51	2.74	0.59	3.19	0.59	2.99	0.88	6.54	2.18
<b>Age category</b>										
1. 20-30 years	2.78	0.52	2.74	0.61	3.21	0.58	2.91	0.90	6.32	2.23
2. 31-40 years	2.74	0.48	2.66	0.53	3.14	0.57	2.96	0.89	6.49	2.07
3. 41-50 years	2.62	0.56	2.56	0.68	3.10	0.69	2.98	0.88	6.75	2.28
4. >=51 years	2.62	0.48	2.55	0.57	2.99	0.65	2.89	0.90	6.89	2.11
5. Over all	2.75	0.51	2.69	0.60	3.17	0.59	2.94	0.89	6.44	2.18
<b>Education</b>										
1. Certificate and diploma	2.80	0.54	2.70	0.63	3.09	0.66	3.05	0.91	6.52	2.45
2. Degree	2.77	0.49	2.72	0.53	3.20	0.58	2.95	0.86	6.44	2.07
3. Msc/Mph/PhD	2.43	0.58	2.42	0.59	3.22	0.48	2.56	1.09	6.19	2.54
4. MD+Speciality	2.72	0.62	2.64	0.73	3.15	0.66	2.99	0.99	6.29	2.58
5. Over all	2.76	0.51	2.70	0.60	3.18	0.60	2.96	0.89	6.43	2.20

<b>Total experience</b>										
1.1-5 years	2.78	0.50	2.73	0.59	3.16	0.57	2.94	0.85	6.34	2.19
2.6-10 years	2.75	0.56	2.69	0.61	3.19	0.60	2.96	0.90	6.39	2.14
3.11-20 years	2.75	0.48	2.71	0.60	3.23	0.66	2.94	0.90	6.77	1.97
4.>=21 years	2.76	0.51	2.65	0.61	3.25	0.63	3.19	0.95	6.98	2.53
5. Over all	2.76	0.52	2.71	0.59	3.18	0.59	2.96	0.88	6.45	2.18
<b>Profession</b>	<b>Mean</b>	<b>SD</b>								
1. Medical doctor	2.80	0.39	2.58	0.47	3.25	0.53	3.11	0.59	6.50	1.66
2. Specialist physician	2.73	0.50	2.58	0.56	3.14	0.66	3.04	0.85	6.76	2.18
3. Nurse	2.74	0.52	2.71	0.60	3.22	0.58	2.94	0.88	6.38	2.22
4.Laboratory professional	2.90	0.48	2.92	0.55	3.01	0.58	3.06	0.75	6.78	1.88
5. Pharmacy professional	2.99	0.41	2.80	0.41	3.29	0.54	3.30	0.65	6.76	2.17
6. Radiology professional	2.57	0.73	2.69	0.70	3.13	0.74	2.58	1.24	6.33	2.50
7. Public health officer	2.63	0.53	2.38	0.55	2.83	0.72	2.73	1.00	5.11	2.02
8. Other	2.79	0.56	2.76	0.76	3.07	0.67	2.80	1.10	6.64	2.33
9. Over all	2.77	0.52	2.71	0.60	3.18	0.59	2.96	0.88	6.45	2.18

#### **4.6.2 Health worker empowerment in public and private hospitals**

The researcher also considered the level of workplace empowerment of health workers in public and private hospitals. Much of work place empowerment studies focused on nurses. However, this study included other cadres of professionals in spite of the fact that the majority of data were collected from nurses. Work place empowerment has two major categories, which are structural and psychological empowerment. In addition, structural empowerment is defined by six dimensions and these are access to information, opportunity, support, and resources as well as formal and informal power. Psychological empowerment has 12 variables. Five ranges of responses were given for all dimensions of structural empowerment: 1=none, 3=some and 5= a lot. Global empowerment was measured by two variables with the same range of responses as above. The two variables were, “Overall, my current work environment empowers me to accomplish my work in an effective manner” and “Overall, I consider my workplace to be an empowering environment”.

For psychological empowerment, 12 variables were used to measure the overall psychological empowerment with seven ranges of responses in which 0=very strongly disagree to 6=very strongly agree. Data aggregations were made and the following table (Table 4-17) shows the mean and standard deviation of the two constructs of empowerment. In addition, global empowerment was tabulated for public and private hospital health workers.

##### **4.6.2.1 Independent sample t-test**

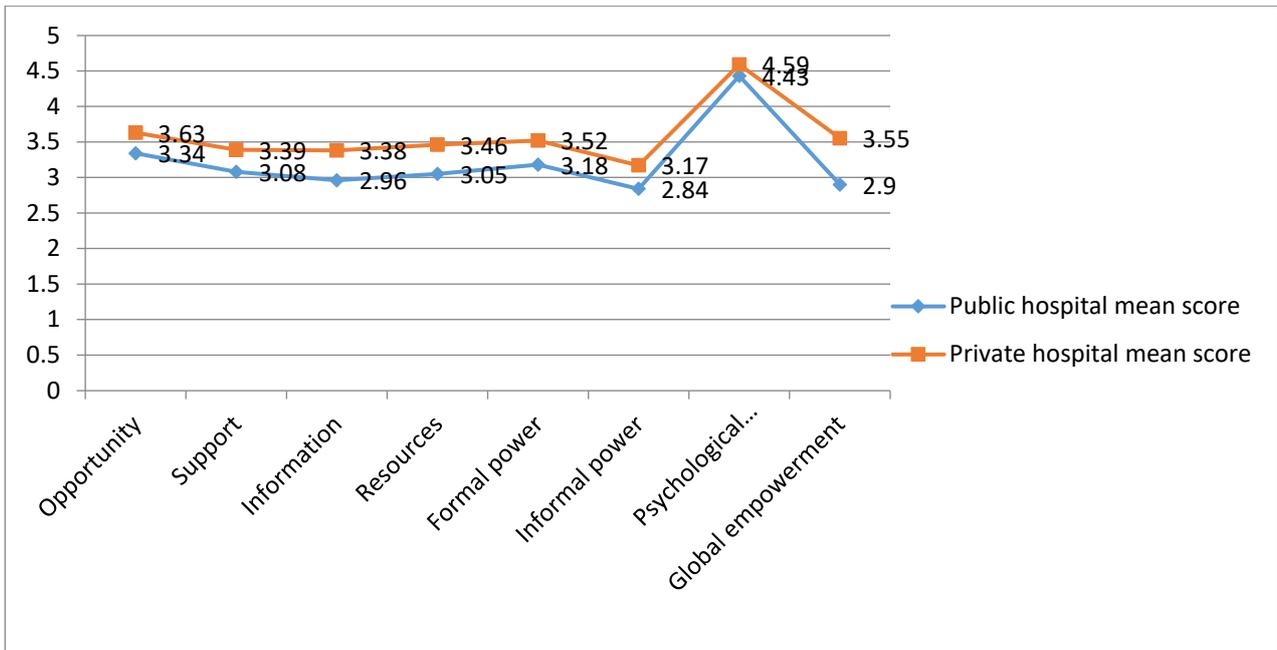
Independent sample t-tests were run to see whether there was a difference between public and private health workers’ structural and psychological empowerment in Addis Ababa hospitals. As the two assumptions to run t-test (normality and homogeneous of variance) were not met, bootstrapped confidence intervals and significance tests were used to see the mean difference. As shown below, in Table 4.17, all structural empowerment dimensions and psychological empowerment showed that private hospital workers had a higher score in structural and psychological empowerment compared to their public hospital counterparts: in all cases, statistically significant P-value of 0.001; only psychological empowerment p-value is 0.028, still statistically significant. The mean scores of global empowerment, in accordance with the two variables, were high for private health workers with the differences

being statistically significant (P-value=0.001): 3.02 and 2.9 for public hospital health workers vs. 3.55 for private hospital health workers.

**Table 4-17: Mean scores of health workers' structural and psychological empowerment in public and private hospitals**

Work place empowerment	Dimensions	Public hospitals		Private hospitals		Overall		P-value
		Mean	SD	Mean	SD	Mean	SD	
<b>Structural empowerment</b>	Opportunity	3.34	0.75	3.63	0.74	3.49	0.86	0.001
	Support	3.08	0.82	3.39	0.82	3.24	0.84	0.001
	Information	2.96	0.87	3.38	0.92	3.18	0.92	0.001
	Resources	3.05	0.81	3.46	0.81	3.26	0.83	0.001
	Formal power	2.84	0.94	3.17	0.83	3.01	0.90	0.001
	Informal power	3.18	0.75	3.52	0.78	3.36	0.79	0.001
<b>Psychological empowerment</b>		4.43	0.89	4.59	0.83	4.51	0.86	0.028
<b>Global empowerment</b>	Overall, my current work environment empowers me to accomplish my work in an effective manner.	3.02	1.14	3.55	1.13	3.30	1.16	0.001
	Overall, I consider my workplace to be an empowering environment.	2.90	1.16	3.55	1.12	3.24	1.16	0.01

*N.B: structural empowerment range: 1-5; Psychological empowerment scale: 0-6; P-value is calculated by bootstrapping the independent sample t-test.*



**Figure 4-6: Comparison of public and private hospital health workers' structural and psychological empowerment means scores**

**4.6.2.2 Developing a model to predict workplace empowerment of health workers in private and public hospitals**

Bi-variate and partial correlation tests were run to determine the relationship among structural, psychological and global empowerment. After running unadjusted bi-variate correlation, partial correlation was run by holding all other variables except the two correlated variables. The following correlation Table 4.18 depicts the results of bi-variate correlations.

The table shows that access to opportunity had a statistically significant, moderate and direct correlation with access to support ( $r=0.44$ ), access to information ( $r=0.31$ ); and a statistical significant and weak correlation with access to resources ( $r=0.28$ ), formal power ( $r=0.28$ ), informal power ( $r=0.26$ ), psychological empowerment ( $r=0.25$ ). Access to opportunity has also had a weak and statistically significant correlation with general empowerment measures ( $r=0.27$  and  $0.24$ ). However, an adjustment of all other variables showed that access to opportunity had a statistically positive, but weak correlation with access to support ( $r=0.29$ ,  $P\text{-value}=.001$ ).

Access to support had a statistically significant and moderate correlation with other variables of structural empowerment, psychological empowerment and general empowerment measures (with ranges from 0.28 to 0.5). After adjusting the other variables, it had a

statistically significant and weak correlation with access to information and support ( $r = 0.27$  and  $0.13$  at  $P$ -values of  $0.001$  and  $0.04$ , respectively).

Access to information has had statistically significant and positive moderate correlation ( $r$  ranges from  $0.26$  to  $0.47$ ,  $P$ -value= $0.001$ ) with other variables of structural, psychological and general empowerment measures. After controlling other variables in the table, still correlation between access to information has maintained its statistically significant correlation though the association has weakened: with formal power ( $r=0.19$ ,  $P$ -value= $0.001$ ), informal power ( $r=0.16$ ,  $P$ -value= $0.001$ ) and with one variable of global empowerment ( $r=0.107$ ,  $P$ -value= $0.014$ ).

Access to resources had a statistically significant and positive moderate correlation ( $r$  ranges from  $0.26$  to  $0.47$ ,  $P$ -value= $0.001$ ) with other variables of structural, psychological and global empowerment measures. After partial correlation was run, statistically significant correlations were maintained with formal power ( $r=0.16$ ,  $P$ -value= $0.001$ ), informal power ( $r=0.22$ ,  $P$ -value= $0.001$ ) and with the two global empowerment measures ( $r=0.2$  and  $0.16$ ,  $P$ -value= $0.001$ ). However, the strength of the correlations was weak.

Formal power had moderate correlations with informal power ( $r=0.42$ ), there was a weak positive correlation with psychological empowerment ( $r=0.23$ ), and moderate correlations with the two global empowerment measures ( $r=0.47$  and  $0.51$ ). All correlations were statistically significant ( $P$ -value= $0.001$ ). After running partial correlation, the significances were kept with informal power ( $r=0.13$ ), and global empowerment measures ( $r=0.25$  and  $0.30$ ) at  $P$ -value= $0.001$ ).

Finally, psychological empowerment maintained statistically significant, but weak, positive correlations with global empowerment measures, even after controlling all other structural empowerment dimensions. The partial correlations between psychological empowerment and measures of global empowerment changed from  $0.36$  to  $0.20$  and  $0.32$  to  $0.16$  at  $P$ -value= $0.001$ .

**Table 4-18: Bi-variate correlations of health workers' structural, psychological and global empowerment**

	Opportunity	Support	Information	Resources	Formal power	Informal power	Psychological empowerment	Current work environment empowers me	Work place as empowering environment
Opportunity	1								
Support	0.44*	1							
Information	0.31*	0.50*	1						
Resources	0.26*	0.40*	0.41*	1					
Formal power	0.28*	0.39*	0.47*	0.46*	1				
Informal power	0.26*	0.37*	0.43*	0.46*	0.42*	1			
Psychological empowerment	0.25*	0.28*	0.26*	0.26*	0.23*	0.36*	1		
Current work environment empowers me	0.27*	0.35*	0.37*	0.44*	0.47*	0.38*	0.36*	1	
Work place as empowering environment	0.24*	0.37*	0.41*	0.43*	0.51*	0.38*	0.32*	0.75*	1

*\*\*Correlation is significant at the 0.01 level (2-tailed)*

All assumptions to run multiple regressions were checked before running a model. The relationship between outcome variable and predictors were checked for linearity. In addition, predictors were checked for multi-collinearity, normality of error variance, independence of errors, and homoscedasticity of error variance around a specific outcome scores and outliers (Field 2009:197-263). All other assumptions, except normality and homoscedasticity, were met. Bootstrapped confidence intervals and significance values were estimated for violation

of normality and homoscedasticity. The table below shows the parameters of the model.

The entered dependent variable, “Overall, I consider my workplace to be an empowering environment”, was one of the global empowerment measures. In addition, the predictors entered into the model, which are access to opportunity, support, information, resources, informal and formal power. Psychological empowerment measure came from the aggregation of the 12 variables of the scale.

**Table 4-19: Parameters of multiple regression models to predict global empowerment of health workers both in private and public hospitals**

	b (95 % CI.)	seb	$\beta^*$	P-value
<b>Step1</b>				
Constant	-0.22[-0.49,0.44]			0.95
Opportunity	0.02[-0.1,0.16]	0.25	0.02	0.70
Support	0.12[-0.01,0.27]	0.06	0.09	0.10
Information	0.15[0.03,0.26]	0.06	0.12	0.02*
Resources	0.22[0.07,0.36]	0.06	0.16	0.01*
Formal power	0.40[0.28,0.53]	0.06	0.31	0.01*
Informal power	0.13[-0.01,0.27]	0.06	0.09	0.06
<b>Step 2</b>				
Constant	-0.50[-1.08,0.01]	0.27		0.07
Opportunity	0.01[-0.13,0.13]	0.06	0.01	0.99
Support	0.10[-0.03,0.24]	0.06	0.07	0.17
Information	0.14[0.02,0.25]	0.06	0.11	0.03*
Resources	0.21[0.06,0.35]	0.06	0.15	0.01*
Formal power	0.40[0.28,0.53]	0.06	0.31	0.01*
Informal power	0.08[-0.06,0.21]	0.06	0.05	0.24
Psychological empowerment	0.19[0.08,0.31]	0.05	0.14	0.01*

The hierarchical regression method was employed in two steps. The structural empowerment dimensions were entered in the first step while both the structural and psychological empowerments were added in the second step and final model.

Four variables were found as predictors of global empowerment of health workers. These were: access to information ( $\beta=0.11$ , P-value=0.03); access to resources ( $\beta=0.15$ , P-value=0.01); formal power ( $\beta=0.11$ , P-value=0.01); and psychological empowerment ( $\beta=0.14$ , P-value=0.01). A standard deviation (0.92) score increment of access to information will result in 0.11 times increment of a standard deviation (1.16) of global empowerment. That means if the mean of access to information increases by one standard deviation (0.92), the global empowerment mean score will increase by 0.13 ( $0.11 \times 1.16 = 0.13$ ).

A standard deviation (0.83) score increment of access to resources will result in a 0.15 standard deviation increment of global empowerment: a 0.83 (one standard deviation) mean increment of access to resources will result a 0.17 increment to the mean of global empowerment. A standard deviation (0.90) increment to mean of access to information will result in a 0.14 standard deviation (1.16) increment of global empowerment: a 0.90 (one standard deviation) mean increment of formal power will result in a 0.36 increment to the mean of global empowerment.

Psychological empowerment is also a predictor of global empowerment. A standard deviation (0.86) increment to the mean of psychological empowerment will result in 0.14 times increment of the standard deviation (1.16) of global empowerment while a 0.86 (one standard deviation) of psychological empowerment mean score will result in a 0.16 mean score increment of global empowerment.

#### ***4.6.2.3 Relationship between socio-demographic variables and work place empowerment of health workers in private and public hospitals***

Table 4.20 depicts the mean scores of each dimensions of structural empowerment, psychological and global empowerment based on the lines of socio-demographic variables. The scores were sub-analysed for public and private hospital health workers.

**Table 4-20: Relationship between socio demographic variables and work place structural empowerment**

Demographic variables	opportunity		Support		Information		Resources		Formal power		Informal power		Psychological empowerment		Global empowerment	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>Gender</b>																
1. Male	3.50	0.72	3.17	0.83	3.07	0.90	3.20	0.81	2.99	0.89	3.34	0.77	4.59	0.85	3.28	1.04
2. Female	3.47	0.77	3.30	0.85	3.25	0.94	3.32	0.83	3.04	0.90	3.40	0.79	4.49	0.87	3.32	1.24
<b>Age category</b>																
1. 20-30 years	3.47	0.77	3.25	0.89	3.20	0.94	3.28	0.87	2.98	0.97	3.34	0.82	4.49	0.85	3.29	1.27
2. 31-40 years	3.61	0.67	3.32	0.79	3.25	0.86	3.32	0.80	3.10	0.79	3.39	0.74	4.53	0.86	3.30	0.98
3. 41-50 years	3.44	0.72	3.12	0.68	2.95	1.00	3.12	0.81	2.92	0.97	3.39	0.76	4.67	0.86	3.37	1.17
4. >=51 years	3.11	0.69	2.83	0.80	2.91	0.83	2.96	0.80	2.73	0.60	3.15	0.64	4.29	0.76	2.89	0.90
5. Over all	3.50	0.74	3.24	0.84	3.18	0.92	3.26	0.84	3.00	0.90	3.35	0.78	4.51	0.85	3.29	1.16
<b>Education</b>																
1. Cert and Diploma	3.59	0.72	3.27	0.93	3.24	0.98	3.23	0.87	3.01	0.90	3.46	0.76	4.57	0.93	3.15	1.29
2. Degree	3.48	0.75	3.24	0.82	3.16	0.90	3.30	0.79	3.04	0.92	3.35	0.77	4.48	0.85	3.34	1.09
3. MSc/Mph/PhD	3.25	0.69	3.19	0.77	3.25	0.92	3.02	0.84	2.92	0.98	3.34	0.78	4.61	0.80	3.06	1.40
4. MD+Speciality	3.48	0.93	3.19	0.82	3.04	0.98	3.06	0.91	2.78	0.92	3.32	0.88	4.67	0.76	3.17	1.22
5. Over all	3.50	0.76	3.24	0.84	3.17	0.92	3.26	0.82	3.01	0.90	3.37	0.78	4.52	0.86	3.28	1.16
<b>Total experience</b>																

1.1-5 years	3.46	0.77	3.24	0.84	3.20	0.95	3.25	0.82	3.03	0.91	3.38	0.78	4.40	0.89	3.40	1.17
2.6-10 years	3.54	0.70	3.25	0.91	3.22	0.91	3.30	0.83	2.98	0.91	3.32	0.82	4.58	0.85	3.05	1.22
3.11-20 years	3.55	0.76	3.44	0.68	3.04	0.94	3.36	0.87	3.12	0.84	3.42	0.68	4.67	0.82	3.50	1.01
4.>=21 years	3.32	0.77	3.03	0.73	3.04	0.72	3.21	0.80	2.98	0.91	3.45	0.76	4.78	0.73	3.28	1.03
5. Over all	3.48	0.75	3.25	0.91	3.18	0.92	3.27	0.83	3.02	0.90	3.37	0.78	4.51	0.86	3.29	1.17
<b>Profession</b>																
1. Medical doctor	3.04	0.96	2.98	0.82	2.79	0.55	3.28	0.64	2.82	0.68	3.38	0.72	4.63	0.70	3.04	0.96
2. Specialist physician	3.14	0.97	2.84	0.65	2.69	0.90	3.07	0.81	2.82	0.86	3.48	0.52	4.81	0.76	3.14	0.97
3. Nurse	3.33	1.23	3.27	0.87	3.21	0.94	3.26	0.84	3.02	0.93	3.38	0.81	4.46	0.90	3.33	1.23
4.Laboratory Profession	3.18	0.87	3.46	0.76	3.35	0.84	3.31	0.81	3.09	0.95	3.26	0.88	4.56	0.67	3.18	0.87
5.Pharmacy professional	3.78	1.02	3.38	0.70	3.50	0.96	3.48	0.77	3.35	0.85	3.35	0.60	4.50	0.91	3.78	1.02
6.Radiology professional	3.00	1.48	3.42	0.42	3.50	0.64	3.19	1.02	3.26	0.71	3.46	0.86	4.92	1.00	3.00	1.48
7. Public health officer	2.82	0.98	3.59	0.80	3.09	0.85	3.12	0.72	3.05	0.57	3.18	0.64	4.44	0.69	2.82	0.98
8. Other	3.27	1.12	3.13	0.94	3.14	0.94	3.32	0.89	2.96	0.87	3.39	0.86	4.57	0.90	3.27	1.12
9. Over all	3.30	1.17	3.25	0.84	3.18	0.93	3.27	0.82	3.02	0.90	3.38	0.78	4.52	0.87	3.30	1.17

#### *4.6.2.3.1 Kruskal-Wallis test*

Both the independent sample t-test (for gender) and Kruskal-Wallis test were run to test whether there were group mean differences in the socio-demographic variables. The independent sample t-test (for gender) showed that female health workers felt that they had better access to information compared to their male counterparts (the mean difference was 0.19) and the difference was statistically significant ( $p=0.026$ ). In all other variables of structural, psychological and general empowerment scores, gender had no statistically significant influence at  $P=0.05$ .

Kruskal-Wallis test was run for other demographic variables having more than two categories. Health workers within the age category of 31-40 years perceived their access to opportunity as higher than those whose age was greater than or equal to 50 yrs. ( $P$ -value=0.04, mean difference was 0.5).

Access to information and support had a significant difference among professional categories ( $P$  –value=0.01 and 0.02 respectively). In both cases, nurses scored more compared to specialist physicians. The mean differences between both professional categories were 0.34 and 0.48, respectively.

As experience of health workers increased, psychological empowerment also increased. However, the adjusted  $P$ -value with Kruskal-Wallis test failed to show any significant difference in the psychological empowerment along the categories of experience. A comparison between health workers with experience of 1-5 years and those with 6-10 years showed a statistically significant difference in global empowerment (test statistics=43.14, adjusted  $P$ -value=0.04).

Finally, education had no statistically significant effect on the level of structural, psychological and global empowerment in this study.

#### *4.6.2.3.2 Binary logistic regression*

Binary logistic regression was run to test whether the socio-demographic factors had influence on structural, psychological and global empowerment. The dependent variables (structural empowerment and global empowerment) were converted in-to “yes” and “no” responses by combining the lower three (1-3) responses into “no” and the upper two (response four and five) into “yes” responses. In the case of psychological empowerment, the lower four (0-3) responses were categorised as “no” and the upper three (4-6) responses

into “yes” categories. All the five dimensions were added together and average taken before calculating the structural empowerment score in to “yes” and “no”. The finding was that logistic regression model failed to show whether these predictors had an effect on the general global empowerment level of health workers working in Addis Ababa hospitals (both private and public).

The socio demographic variables were entered in hierarchical fashion. It was found out that the s socio demographic factors did not have a statistically significant relationship with both structural and psychological empowerment. Profession also had a statistically significant relationship with global empowerment. The odds of global empowerment were 5 times more likely among pharmacy professionals than medical doctors (AOR=5.27, P-value=0.006, 95 % CI=1.6-17.3, respectively).

### 4.6.3 Patient safety culture in public and private hospitals

#### 4.6.3.1 Introduction

The tool developed by the Agency for Health care Research and Patient safety (AHRQ) seeks to infer the perception of hospital health workers’ patients’ safety culture. The tool includes issues related to patient safety, event reporting and medical error. It has 42 items that measure 12 dimensions or composites of patient safety culture. Most items use the five-point response scales agreements “strongly disagree” to “strongly agree” or frequency “never” to “always”. The following table depicts the dimensions, number of items included in each dimension and common definitions.

**Table 4-21: patient safety culture composite indexes**

<b>Patient safety culture composites</b>	<b>Definition: The extent to which....</b>	<b>Number of Survey Items</b>
Communication openness	Staff will freely speak up if they see something that may negatively affect patient care and feel free to question those with more authority.	3
Feedback and communication about error	Staff are informed about errors that happen, given feedback about changes put into place based on event reports, and discuss ways to Prevent errors.	3
Frequency of events reported	Mistakes of the following types are reported: 1) Mistakes caught and corrected before affecting the patient, 2) mistakes with no potential to harm the patient, and 3)	

	mistakes that could harm the patient, but do not.	
Hand offs and transitions	Important patient care information is transferred across hospital units and during shift changes.	4
Management support for patient safety	Hospital management provides a work climate that promotes patient safety and shows that patient safety is a top priority.	3
Non-punitive response to error	Staffs feel that their mistakes are not held against them, and mistakes are not kept in their personnel file.	3
Organisational learning-continuous improvement	Mistakes have led to positive changes and changes are evaluated for their effectiveness.	3
Over all perception of patient safety	Procedures and systems are good at preventing errors and there is a lack of patient safety problems.	4
Staffing	There is enough staff to handle the workload and work hours are appropriate for the provision of best care for patients.	4
Supervisor/manager expectations and actions promoting safety	Supervisors/managers consider staff suggestions for improving patient safety, praise staff for following patient safety procedures, and do not overlook patient safety problems.	4
Team work across units	Hospital units cooperate and coordinate with one another to provide the best care for patients.	4
Team work within units	Staff support one another, treat each other with respect, and work together as a team.	4

In addition to patient safety composite indices (dimensions), each health worker was requested to grade the patient safety of the hospital they were working at. The patient safety grade was also recorded with five response scales: E= failing and A=excellent. The grade was then changed into ordinal grades: 1=failing and 5=Excellent and a mean and standard deviation for this ordinal grade computed. Total patient safety culture mean scores were also tabulated by taking the average score of the 12 dimensions between public and private hospitals. The following table depicts patient safety culture dimensions between public and private hospitals in Addis Ababa.

**Table 4-22: Mean score of patient safety culture in public and private hospitals**

Patient safety culture dimensions	Public hospitals		Private hospitals		Overall		P-value*
	Mean	SD	Mean	SD	Mean	SD	
Communication	3.38	0.52	3.54	0.48	3.47	0.51	.001
Feedback and communication	3.38	0.83	3.58	0.73	3.49	0.79	.003
Frequency of events	3.39	0.86	3.59	0.92	3.49	0.89	.001
Hand offs and transition	3.68	0.95	3.89	1.03	3.79	0.99	.018
Management support	3.59	0.63	3.99	0.67	3.80	0.68	.001
Non-punitive response	3.46	0.82	3.42	0.90	3.44	0.86	0.496
Organisational learning	3.89	0.72	4.08	0.68	3.99	0.70	.003
Over all perception	3.54	0.51	3.71	0.55	3.63	0.53	.001
Staffing	3.24	0.68	3.22	0.71	3.23	0.70	0.646
Supervisor expectation	3.64	0.59	3.84	0.63	3.75	0.62	.001
Team work across unit	3.77	0.65	4.08	0.65	3.93	0.67	.001
Team work within unit	3.97	0.72	4.24	0.65	4.11	0.70	.001
Patient safety score	3.58	0.30	3.77	0.31	3.68	0.32	0.02
Overall grade	3.39	0.83	3.88	0.85	3.65	0.87	.001

\*= P-values are bootstrapped values

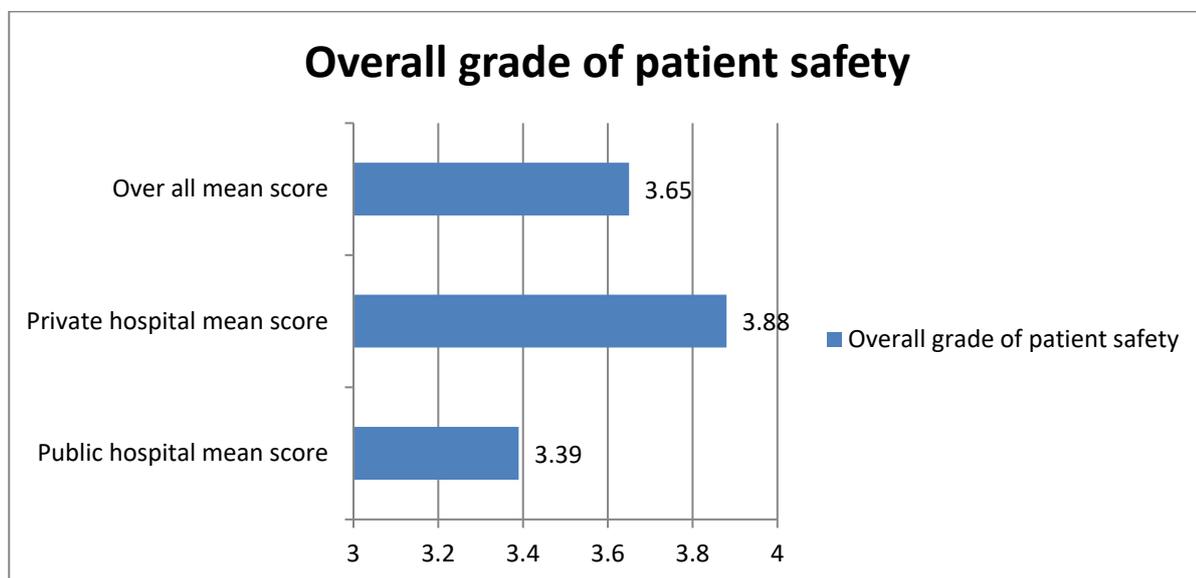
#### 4.6.3.1 Independent sample t-test

The independent sample t-test was run in order to examine patient safety culture between public and private hospitals. The mean total patient safety score was by taking the average of all the 12 patient safety culture dimensions. The public and private hospitals' mean total patient safety scores were 3.58 (SD=0.30) and 3.77(SD=0.31), respectively. The mean total

patient safety score difference between public and private hospitals was 0.19 while the independent sample t-test showed that the difference was statistically significant at  $p=0.02$ .

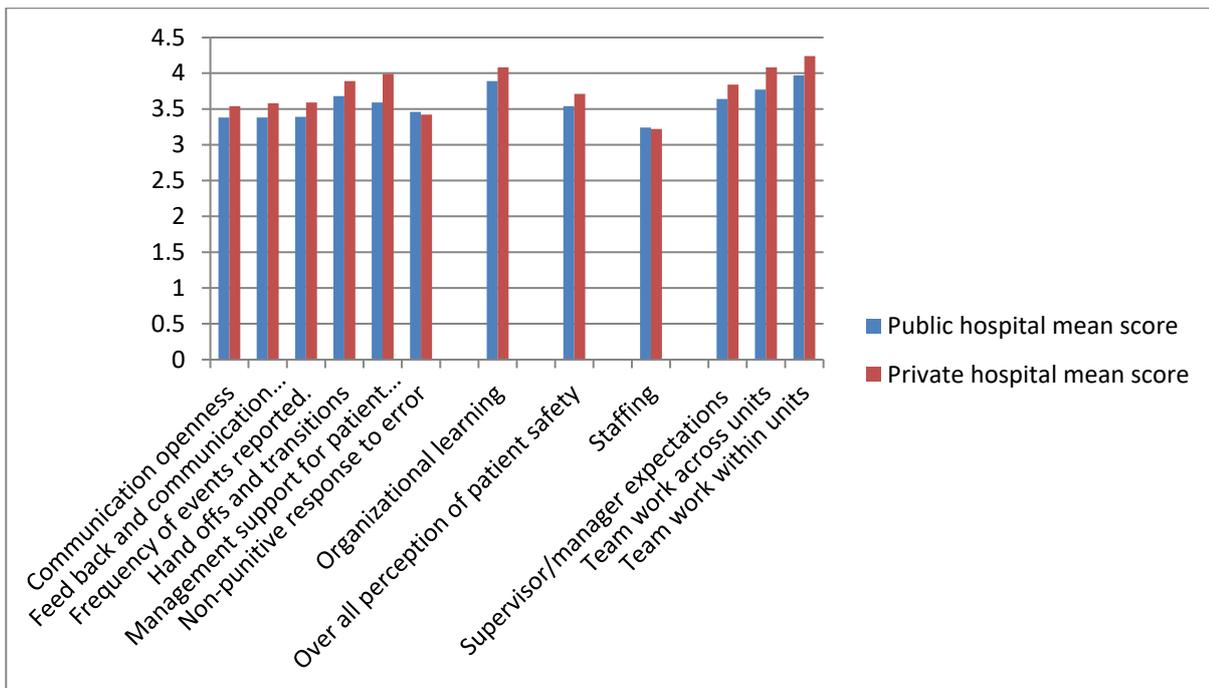
The minimum mean score of all dimensions was for staffing (public hospital=3.24, and private 3.22) while the maximum was registered for teamwork within units (public hospital=3.97; private hospital=4.24). In addition, health workers in private hospitals, except with regards to the staffing dimension, scored high that workers in public hospitals.

Private hospital health workers perceive their hospitals as having a better overall grade of patient safety culture in comparison to that of public hospital health workers. The mean difference was 0.19 and the difference was statistically significant at  $P\text{-value}=0.02$ .



**Figure 4-7: overall grade of patient safety for public and private hospitals**

Public hospital health workers' mean scores were lower than their private hospital counterparts in all the eleven dimensions except for staffing. The staffing score even had a mean difference that was not statistically significant ( $P\text{-value}=0.65$ ). Another patient safety dimension, which was not statistically significant relates to non-punitive response to medical error. There was no statistically significant difference in public and private hospitals' mean score differences. All other scores of patient safety hospital culture dimensions showed consistent mean differences (higher for private hospitals) and all the differences were statistically significant ( $P\text{-value}$  ranges from 0.01 to 0.03).



**Figure 4-8: Hospital patient safety culture dimensions' mean scores for public and private hospitals**

#### ***4.6.3.2 Developing a model to predict overall patient safety culture in private and public hospitals***

All assumptions on running multiple regressions were checked before running a model. The relationship between outcome variable and predictors were checked for linearity. In addition, predictors were checked for multicollinearity, normality of error variance, independence of errors, and homoscedasticity of error variance around a specific outcome scores and outliers (Field 2009:197-263). All other assumptions, with the exception of normality and homoscedasticity, were met. Confidence intervals and significant values were estimated using the statistical method called bootstrap for violation of normality and homoscedasticity.

The dependent variable was “overall grade of patient safety” and the predictors entered in the model were all the 12 dimensions of patient safety culture. Step wise hierarchical regression was run. The ANOVA table of regression showed that the developed model best explained the dependent model using the dimensions of the 12-patient safety culture rather than using the mean score of the dependent variable  $F(8.02, 0.50) = 13.7$ ,  $P\text{-value} = 0.001$ . The model explained only 22.9% of the variation (Square change=0.229). In addition, the final multiple regression models showed three predictors, among the 12 patient safety culture dimensions, had a statistically significant relation with dependent variable “overall grade of patient safety”.

Further results showed that communication openness had a negative relation with overall patient safety grade given by health workers. The standardized  $\beta$  value for communication openness was -0.13 and it was statistically significant (P-value=0.003). That means for a one unit increase in standard deviation of communication openness (0.51 score increase), the patient safety grade mean score will decrease by 0.13 units of standard deviation ( $0.13 \times 0.87 = 0.11$ ).

Both dimensions, “management support for patient safety” and “supervisor/manager expectation and actions promoting safety”, have a direct and positive relationship with the dependent variable “overall grade of patient safety”. For a one-unit standard deviation increase of “management support for patient safety” the outcome variable will increase by 0.31 standard deviation (P-value=0.001). A one unit increase in standard deviation of “supervisor/manager expectation and actions for promoting patient safety”, the mean patient safety grade of that hospital, will increase by 0.17 unit of standard deviation (P-value=0.001). Other remaining dimensions of patient safety culture did not achieve a statistically significant effect on the dependent variable at P-value=0.05

#### ***4.6.3.3: Relationship between socio-demographic variables and patient safety culture in public and public hospitals***

The researcher tested the influence of health workers’ socio-demography on the 12 dimensions of patient safety culture and overall grade of patient safety culture. The socio-demographic factors included in the analysis were gender, age category, education, total experience and profession.

##### ***4.6.3.3.1 Gender***

An independent sample t-test was run to examine the influence of gender on the 12 dimensions and overall patient safety grades. Among the 12 dimensions, only staffing had a statistically significant mean difference between male and female health workers. Male health workers responded that there were enough health workers to handle the work load of the hospitals (the mean difference was 0.16, P-value=0.013). Otherwise there is no statistically significant difference noted in the other 11 dimensions.

Finally, female health workers favourably responded about their hospital patient safety grade compared to male health workers. The mean difference between female and male health worker responses was 0.27, P-value=0.001.

#### 4.6.3.3.2 Age

A Kruskal-wallis test was run to determine the influence of age on the dimensions of patient safety culture. The results indicated that age did not make a statistically significant influence on patient safety culture dimensions and the overall patient safety grades of hospitals.

#### 4.6.3.3.3 Education

A Kruskal-Wallis test revealed that the level of education has a statistically significant effect on the two dimensions of patient safety culture. The results showed an over-all perception of patient safety and staffing of P-values=0.001 and 0.018, respectively. However, the test could not identify which categories of education levels have statistically significant differences.

#### 4.6.3.3.4 Professional type

The median test, which is the non-parametric test, revealed that profession has an effect on multiple dimensions of patient safety culture. The medians of: feedback and communication about error (P=0.005); hand offs and transitions (P-value=0.0037); management support for patient safety (P-value=0.045); over all perception of patient safety (P-value=0.001); staffing (P-value=0.001); and team work across units in the hospital (P-value=0.001), were not the same across the categories of professional types. The median test did not identify categories of professionals that were different from each other. Although the median test failed to identify where the difference in the professional category lay, the post hoc test in one-way ANOVA gave a clue on where the difference for four of the six categories.

**Table 4-23: Post hoc test for the professional categories**

Patient safety culture dimensions	Professionals	Mean difference	P-value
Hand offs and transitions	Specialist physician vs. Nurse	0.63	0.004
Overall perception of patient safety	Specialist physician vs. Nurse	0.28	0.027
	Nurse with other professionals	-0.37	0.001
Staffing	MD vs. Nurse	0.38	0.05
	Specialist physician vs. Nurse	0.37	0.001
Team work across units	Specialist physician vs. Nurse	0.43	0.003
	Nurse with other professionals	-0.37	0.012

*N.B: Other professionals include physiotherapists, anaesthesia professionals, dentists, mental health and professionals*

#### **4.7. RESULT III: ASSESSING PATIENTS' PERCEPTION OF QUALITY OF HEALTH CARE IN PUBLIC AND PRIVATE HOSPITALS OF ADDIS ABABA**

This section discusses patients' experience of quality of health care in Addis Ababa's private and public hospitals. The Hospital Consumer of Health Care Providers and Systems (HCAHPS) consists of 25 items on top of the demographic variables. The majority of the items (15 of them) have four response categories: 1-Never; 2-Some times; 3-Usually; and 4-Always. The major theme of the questionnaire along with the number of items are depicted in the following table (Alanazi, Alamry and Al-surimi 2017:861-865).

**Table 4-24: Major themes of the HCAHPS instrument used to collect the data from patients**

	<b>Number of Survey Items</b>
Communication with nurses	3
Communication with doctors	3
Pain management	2
Communication about medicines	2
Hospital environment	2
Discharge information	2
Patient and family centred communication	1
Overall rating of the hospital	1
Willingness to recommend the hospital	1

Two items assess the general patients' satisfaction within the hospital in a scale of 0 to 10: 0-the worst hospital, and 10- excellent hospital. Another item requests patients on whether they recommend the hospital for family/colleagues to get a care, and it has four responses: 0- Never, and 4- Absolutely.

##### **4.7.1 Exploratory factor analysis**

The researcher modified this HCHAPS tool and translated it to Amharic (the local language). He explored the new translated questionnaire using the exploratory factor analysis and reliability analysis approaches before delving into further analysis. A principal component analysis carried out on 15 items with oblique rotation (with direct oblmin). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .786, which

is acceptable. In addition, all other KMO values for individual items, except for one item (KMO=0.493), were above 0.691, which is well above the acceptable limit of 0.5. An initial analysis was run to obtain eigenvalues for each factor in the data. Four factors had eigenvalues over Kaiser’s criterion of 1 and in combination explained 56.1% of the variance (Field 2009:627-685). Two items did not load (as their values fell below 0.3 in the factor structure).

A reliability analysis was conducted for the identified four factors. The Cronbach’s  $\alpha$  for the four factors were determined and values of Cronbach’s  $\alpha$  for the four factors ranged from 0.73 to 0.88, which is commendable for psychometric tests (Field 2009:627-685).

A previous study in Ethiopia showed that five factor structures emerged after the psychometric test of a modified HCAHPS. These five factor structures were communication with nurses, communication with doctors, physical environment, pain management and medication communication (Webster *et al* 2011:258-268).

**4.7.2 Patient experience of quality of health care in public and private hospitals of Addis Ababa**

The following table shows the mean scores of the major themes of patient experience of quality of health care in public and private hospitals in Addis Ababa. Table 4.25 shows, except with “willingness to recommend this hospital” that, private hospitals had a better score compared to their public counterparts. The mean of “over all hospital rating” differences of public and private hospitals was 0.4. The lowest score among the themes was on “communication about medicine”, it was 2.53 and 2.69 in public and private hospitals respectively.

**4.7.2.1 Independent-Samples Mann-Whitney test**

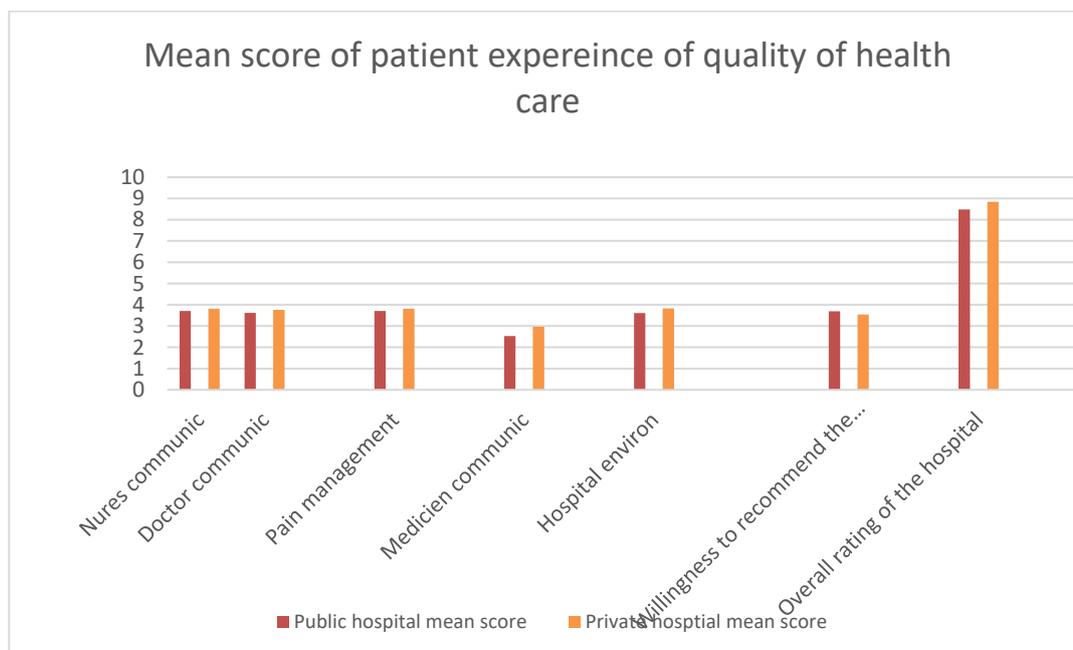
An independent samples Mann-Whitney test was run because data was not normally distributed. All P-values in table 4.25 were calculated based on this non- parametric test.

**Table 4-25: Mean score of patient experience of quality health care in Addis Ababa hospitals**

Themes	Public hospitals		Private hospitals		Overall	P-value*
	Mean	SD	Mean	SD		
					Mean	SD

Communication with nurses	3.71	0.54	3.81	0.39	3.64	0.64	0.001*
Communication with doctors	3.62	0.59	3.76	0.49	3.68	0.63	0.001*
Pain management	3.71	0.54	3.81	0.39	3.71	0.56	0.05*
Communication about medicines	2.53	1.07	2.96	1.15	2.69	1.13	0.01*
Hospital environment	3.61	0.49	3.83	0.38	3.62	0.46	0.01*
Family and patient centered medical decision making	2.99	0.60	3.01	0.43	3.00	0.53	0.84
Overall rating of the hospital	8.48	1.57	8.84	1.38	8.64	1.50	0.03*
Willingness to recommend the hospital	3.69	0.57	3.54	0.62	3.62	0.60	0.01*

*P-value with \* is significant at  $P \leq 0.05$*



**Figure 4-9: Mean scores of patient experience of quality of health care in public and private hospitals**

As shown in both table 4.25 and figure 4.8, private hospital patients gave a better and favourable response regarding the care they received that the public hospital patients. However, the response differs on “willingness to recommend that hospital” as public hospital patients recommend the hospital better than patients of private hospitals. Private hospital patients had the view that doctors and nurses treated them better than patients treated in public hospitals as confirmed by the mean difference of 0.14 and 0.1, respectively and

differences have been statistically significant (P-value=0.001). Pain management, communication about medicine and hospital environment were better in private hospitals (mean differences were 0.1, 0.43 and 0.22 respectively; and P-values less than or equal to 0.05). Finally, "Overall rating of hospital" was better for private hospitals as the mean difference was 0.4 and the difference is statistically significant, P-value=0.03.

#### 4.8. RESULT IV: ASSESSING THE EFFECT OF HOSPITAL LEADERS' TRANSFORMATIONAL, TRANSACTIONAL AND INEFFECTIVE LEADERSHIP ON HEALTH WORKERS' EMPOWERMENT, JOB SATISFACTION, PATIENT SAFETY CULTURE AND PATIENT SATISFACTION

##### 4.8.1. Data aggregation

The researcher conducted a non-parametric correlation test (Spearman's rho) to examine the effects of the hospital leaders' transformational, transactional and ineffective leadership on health workers' empowerment (both structural and psychological), job satisfaction, patient safety culture and patient satisfaction. A total of nine hospitals were included in the study: three public and six private hospitals. In addition, composite indices were calculated for all these variables and data aggregated at the hospital level.

The researcher assumed that the health worker data had a multilevel nature: even in a hospital, health workers at unit level behaved differently from other units of the same hospital, may be due to the unique culture at that unit of hospital, and health workers response may vary. Intra class correlation coefficient one and two (ICC1 and ICC2) as well as all within- group inter-rater agreement (rWg) were calculated before data was aggregated. Leadership and patient satisfaction data were aggregated without taking this assumption: the researcher believed that patients admitted in all departments behave the same regardless of the unit they were admitted: mostly patients stay in a hospital for short time and the cultural difference of the hospital may not affect their response.

**Table 4-26: Mean score of hospital leaders, health workers and patient satisfaction variables in the nine hospitals.**

Hosp	Ptsat	Hwsat	Str_em p	Saf_cul t	Psy_em p	Transf	Transa	Ineffectiv e
Hosp1	3.3700	2.6543	2.7726	3.5800	4.5268	3.0025	2.9254	1.4989
Hosp2	3.5222	2.6257	2.6279	3.6664	4.5241	2.9120	2.9385	1.6873
Hosp3	3.4939	2.5238	2.5927	3.5219	4.4265	2.8167	2.6201	1.0506
Hosp4	3.7556	2.9343	2.8157	3.6764	4.4742	2.9006	2.8363	1.4516
Hosp5	3.6143	3.1879	3.0319	3.8528	4.6429	2.9949	2.5872	1.0104
Hosp6	3.4133	2.699	2.6040	3.6563	4.2024	2.9333	2.8125	1.5633
Hosp7	3.3533	3.0432	2.9783	3.8940	4.8726	3.2146	3.0781	1.1720
Hosp8	3.3542	2.9118	3.0363	3.6299	4.7241	3.2542	2.9751	2.2891
Hosp9	3.7333	3.1632	3.0122	3.7961	4.6802	3.0021	2.9750	0.9000

*Ptsat: patient satisfaction; Hwsat: health worker satisfaction; str\_emp: structural empowerment; Sat\_cult: safety culture; Psy\_emp: psychological empowerment; Transf: transformational leadership; Transa:*

*transactional leadership; Ineffective: ineffective leadership*

The scales of the three data are different: leadership data (0-4); health worker satisfaction (1-4); structural empowerment (1-5); psychological empowerment (0-6), patient safety scale (0-6); and patient satisfaction (1-4).

Non parametric test (spearman’s rho) was selected as the data was small (only nine hospitals). The following table depicts the correlations between these data sets variables.

**Table 4-27: Bi-variate correlation of hospital leaders, health workers and patient satisfaction variables in the nine hospitals**

	Transf ormati onal	Transa ctional	In effectiv e	Job satisfa ction	Structu ral empow erment	Psychol ogical empowe rment	Patient safety culture	Patient satisfa ction
Transformatio nal	1							
Transactional	0.68*	1						
In effective	0.18	0.28	1					
Job satisfaction	0.42	0.13	-0.51	1				
Structural empowerment	0.70*	0.40	-0.12	0.78*	1			
Psychological empowerment	0.83**	0.72**	-0.13	0.58	0.82**	1		
Patient safety culture	0.23	0.25	-0.43	0.83**	0.52	0.52	1	
Patient satisfaction	-0.63	-0.47	-0.45	0.25	-0.02	-0.37	0.22	1

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

Significant and strong correlations were demonstrated between transformational leadership and structural and psychological empowerment (r=0.70, P-value=0.04 and r=0.83, P-value=0.01 respectively). Transactional leadership had a strong correlation with psychological empowerment (r=0.72, P-value=0.03). Ineffective leadership demonstrated a negative correlation with other indices and yet the correlation failed to show statistical significance at P-value=0.05. The three constructs of full range leadership did not show any significant correlation with the patient satisfaction score.

The health workers' job satisfaction had a strong and direct correlation with patient safety culture and with structural empowerment ( $r=0.83$ ,  $P\text{-value}=0.005$  and  $r=0.78$ ,  $P\text{-value}=0.013$ , respectively). Finally, structural and psychological empowerment had a strong and direct correlation ( $r=0.82$ ,  $P\text{-value}=0.007$ ).

## **4.9. RESULT V: ASSESSING THE EFFECT OF HEALTH WORKERS' JOB SATISFACTION, STRUCTURAL AND PSYCHOLOGICAL EMPOWERMENT ON PATIENT SAFETY CULTURE**

### **4.9.1 Introduction**

The hypothesised research model constructed by the researcher embraced different variables: transformational, transaction and ineffective leadership; health worker satisfaction; structural and psychological empowerment; patient safety culture and patient satisfaction. The whole hypothesised model could not be tested by observed variable path analysis of structural equation modelling. This is because for two reasons. Firstly, the data taken from the leaders of nine hospitals remained at 75, and could not fulfil the adequate sample size to run structural equation modelling: at least 20 samples for each variable in the equation or 200 critical samples (Schumacker and Lomax 2016:126). Secondly, data was collected from three different study populations: leaders, health workers and patients. The assumption was data would be analysed at units of hospitals. However, this failed from the beginning because patient satisfaction data were taken from only three units (surgery, internal medicine, Gyne/Obse, a total of 27 units in nine hospitals) and the fourth unspecified units totalling the number of units 36. These units were not adequate to run the analysis.

As a result, the researcher decided to run the correlation at unit level (in the previous section); and, here he ran an observed variable path analysis for health worker data only. The remaining part, especially the relation between leadership and patient satisfaction, was tested in the second part of this study using the qualitative methodology.

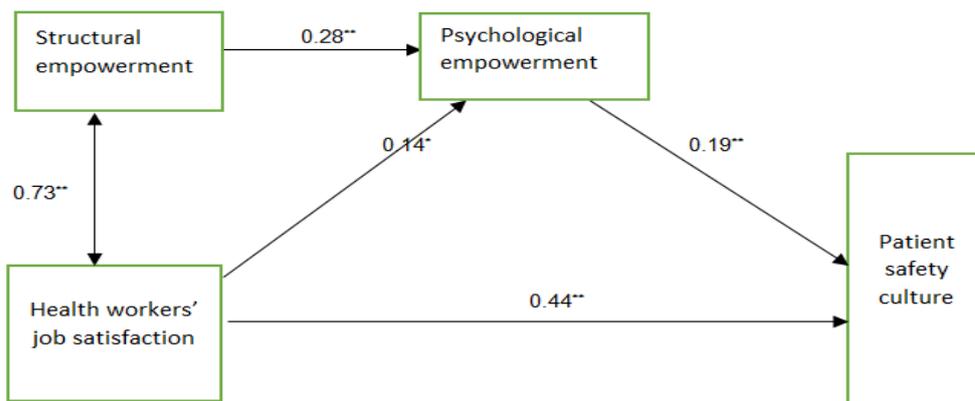
### **4.9.2 Model results of health worker data analysis**

The mean and standard deviation of total scores of the following variables are depicted in the table below.

Part of the hypothesised research model was tested using observed variable path analysis of structural equation modelling. The model test focused on health worker data.

**Table 4-28: Mean and standard deviation of structural and psychological empowerment, health worker satisfaction and patient safety culture**

Variables	Range	Mean	SD
Structural empowerment	1-5	2.79	0.47
Psychological empowerment	0-6	4.55	0.79
Health worker satisfaction	1-4	2.80	0.45
Patient safety culture	0-6	3.68	0.29



$\chi^2(DF=1) = 0.107$ ;  $P\text{-value} = .743$ ;  $CFI = 1.00$ ;  $TLI = 1.00$ ;  $RMSEA = .001$ ;  $RMR = 0.001$ ; \*\*  $P < .01$  \*  $P < .05$

**Figure 4-10: Effect of structural empowerment, health workers' job satisfaction and psychological empowerment on patient safety culture**

The squared multiple correlations of patient safety culture and psychological empowerment were 0.29 and 0.19. This means that the predicted model explained 29% and 19% of variation in patient safety culture and psychological empowerment, respectively.

**Table 4-29: Direct, indirect total effects of variables in the model**

Dependent variable	Independent variable	Standardised Direct_ effect (β)	Standardise d indirect effect(β)	Standardised total effect (β)
<b>Psychological empowerment</b>	Health worker satisfaction	0.14		0.14
	Structural empowerment	0.28		0.28
<b>Patient safety culture</b>	Health worker satisfaction	0.44	0.03	0.47
	Structural empowerment		0.05	0.05
	Psychological empowerment	0.19		0.19

Structural empowerment has a direct and significant effect on psychological empowerment ( $\beta=0.28$ ,  $P\text{-value}=<0.01$ ); and minimal indirect effect on patient safety culture through psychological empowerment ( $\beta=0.05$ ,  $P\text{-value}=<0.05$ ).

Health worker job satisfaction had a strong and positive correlation with structural empowerment (correlation coefficient=0.73). The covariance between health workers job satisfaction and structural empowerment was 0.15 and it was statistically significant ( $P\text{-value}<0.01$ ). It also had predicted psychological empowerment as noted in the statistically significant effect on psychological empowerment ( $\beta=0.14$ ,  $P\text{-value}=<0.05$ ). A one-unit standard deviation mean increment of health worker satisfaction score will result in a 0.14-unit standard deviation increment in the mean score of psychological empowerment.

Health worker job satisfaction also had a direct effect on patient safety culture ( $\beta=0.44$ ,  $P\text{-value}=<0.01$ ). That means for a standard deviation increase in health worker job satisfaction mean score results 0.44 units standard deviation increment in the mean score of patient safety culture.

Finally, one of the findings of this model is that psychological empowerment had a direct and statistically significant effect on patient safety culture ( $\beta=0.19$ ,  $P\text{-value}=<0.01$ ). A one-unit standard deviation mean increment of psychological empowerment score will result in a 0.19-unit standard deviation increment in the mean score of patient safety culture.

## **4.10. CONTEXTUAL ANALYSIS OF HOSPITAL LEADERSHIP, HEALTH WORKER SATISFACTION AND EMPOWERMENT, PATIENT SAFETY CULTURE AND QUALITY OF CARE IN ADDIS ABABA: BRIEF SUMMARY ON FINDINGS FROM PHASE ONE**

### **4.10.1 Introduction**

The researcher made a contextual analysis on hospital leadership and quality of care rendered in Addis Ababa hospitals using the phased approach. The first phase analysed, from a quantitative approach, the situation of hospital leadership and its relationships with health worker satisfaction, empowerment, patient safety culture and patient experience of quality of care in Addis Ababa's public and private hospitals. A summary of the findings of phase one study is presented, and that on the second phase findings will follow.

### **4.10.2 Hospital leadership style**

Hospital leadership style, as a measure of hospital leadership effectiveness, was measured, both in public and private hospitals, using a full range leadership measure called the Multifactor Leadership Questionnaire (MLQ). This measure classifies styles of leaders into: transformational, transactional and ineffective leadership. This scale also has three leadership outcome measures and these are extra effort, satisfaction and effectiveness.

The leadership styles of public and private hospitals' leaders had minimal difference. Private hospital leaders were slightly more transformational ( $M=3.04$ ,  $SD=0.35$ ) and transactional ( $M=2.88$ ,  $SD=0.45$ ) than did their counterparts in public hospitals ( $M=2.88$ ,  $SD=0.49$  and  $M=2.8$ ,  $SD=0.45$ , respectively). The passive leadership style was slightly more evident in public hospital leaders than in the private ones ( $M=1.44$ ,  $SD=0.88$  vs.  $M=1.40$ ,  $SD=0.87$ ). The difference did not show any statistical significance at a P-value of 0.05.

Leadership outcomes were also measured. The focus was on perceptions of leaders in which they rate their effectiveness, how much extra effort they impart on their job and their satisfaction. All these measures showed that leaders from private hospitals considered themselves more satisfied ( $M=3.28$ ,  $SD=0.65$ ), more effective ( $M=3.15$ ,  $D=0.5$ ) and put more extra effort ( $M=3.1$ ,  $D=0.53$ ) than did their public hospital counterparts ( $M=3.15$ ,  $D=0.59$ ;  $M=2.99$ ,  $D=0.57$ ; and  $M=3.01$ ,  $D=0.66$ , respectively). Nonetheless, the difference did not achieve statistical significance at P-value of 0.05.

In conclusion, leadership styles and outcomes (measured by hospital leaders' extra effort, effectiveness and satisfaction) were the same both in private and public hospitals.

#### **4.10.3 Health worker general job satisfaction in public and private hospitals**

General Job satisfaction has three subclasses: relationship with management, job content and relationship with co-workers. Two measurements were taken to determine whether health workers would recommend their work place to their colleagues and for a direct measurement of how one rated their hospital on a scale of 0- 10 (0-worst hospital and 10 best hospital). The results showed that private hospital health workers were better in job satisfaction for the first three subclasses of job satisfaction scales: relationship with management (2.76 vs. 2.56), job content (3.15 vs. 2.47), and relationship with co-worker (3.28 vs. 3.04). The two general job satisfaction scales were also high for private hospitals' health workers than with their public counterparts (2.96 vs. 2.63 and 7.08 vs.5.71). Generally, we can infer that health workers in private hospitals have a better job satisfaction than their public hospital counterparts. "Relationship with management" and "job content" were predictors of general job satisfaction, as measured by rating of the hospital in scale of 10 (both predictors are statistically significant at P-value 0.001).

#### **4.10.4 Health workers empowerment in public and private hospitals**

Both structural and psychological empowerment were measured using different tools. Structural empowerment is a cumulative effect of the following variables, access to information, support, and opportunity, formal and informal power. Psychological empowerment was measured based on 12 variables that were aggregated into one variable.

All structural empowerment dimensions and psychological empowerment show that private hospital workers had a higher score in structural and psychological empowerment than their public hospital counterparts as noted in the statistically significant at P-value of 0.05 obtained in all cases. The mean scores of global empowerments, by the two variables, were high for private health workers and the differences were statistically significant (P-value=0.001): 3.02 and 2.9 for public hospital health workers vs. 3.55 for private hospital health workers, respectively.

Four variables were found as predictors of global empowerment of health workers. These were access to information ( $\beta=0.11$ , P-value=0.03); access to resources ( $\beta=0.15$ , P-value=0.01); formal power ( $\beta=0.11$ , P-value=0.01); and psychological empowerment ( $\beta=0.14$ , P-value=0.01).

#### **4.10.5 Patient safety in public and private hospitals**

The mean total patient safety score was calculated by taking the average of all the 12 patient safety culture dimensions. The public and private hospitals' mean total patient safety scores were 3.58 (SD=0.30) and 3.77(SD=0.31), respectively. The mean total patient safety score difference between public and private hospitals were 0.19 while the independent sample t-test showed the difference as statistically significant ( $p=0.02$ ). Private hospital health workers perceived their hospital as having a better overall grade of patient safety culture than public hospital health workers, as noted in the mean difference of 0.19 and the difference that was statistically significant ( $P\text{-value}=0.02$ ).

Finally, it is clear that both dimensions "management support for patient safety" and "supervisor/manager expectation and actions promoting safety" have a direct and positive relationship with the dependent variable "overall grade of patient safety."

#### **4.10.6 Patients' experience of quality of health care in public and private hospitals**

Private hospital patients gave a better and favourable response regarding the care they received than public hospital patients except on "willingness to recommend that hospital" where public hospital patients recommended public hospitals better than private hospital patients. Private hospital patients were of the view that doctors and nurses treated them better than patients who were treated in public hospitals (mean difference were 0.14 and 0.1 respectively); and the differences were statistically significant ( $P\text{-value}=0.001$ ). Pain management, communication about medicine and hospital environment were better in private hospitals (mean differences were 0.1, 0.43 and 0.22 respectively; and  $P\text{-values} \leq 0.05$ ). Finally, the "Overall rating of hospital" was better for private hospitals with a mean difference of 0.4 and a statistically significant difference of  $P\text{-value}=0.03$ .

#### **4.10.7 Effects of hospital leaders' style on health workers' satisfaction, empowerment, patient safety culture and patient experience of quality of health care**

Significant and strong correlations were observed between transformational leadership and structural and psychological empowerment ( $r=0.70$ ,  $P\text{-value}=0.04$  and  $r=0.83$ ,  $P\text{-value}=0.01$ , respectively). Transactional leadership had a strong correlation with psychological empowerment ( $r=0.72$ ,  $P\text{-value}=0.03$ ). The three measures of full range leadership measures did not show any significant correlation with the patient satisfaction score.

#### **4.10.8 Main issues emerging from phase one that were considered in phase two (qualitative) study**

The first phase of study provided background information regarding leadership styles, effectiveness and outcomes; health workers satisfaction and empowerment; patient safety culture and patient experience of quality of care. Leadership styles did not vary both in public and private hospitals, in addition, the outcome, effectiveness and extra effort in both public and private hospital leaders did not vary. However, these variables need further exploration as the sample size was very small and could fail to show a significant difference between both hospital categories. Therefore, the researcher in the second phase explained the factors that could affect the effectiveness of hospital managers and leaders in both public and private hospitals and explored whether there existed a difference in effectiveness of hospital leadership between the two hospital categories.

Health worker satisfaction was low both in public and private hospitals. This is despite the reality that there was significant difference between the public and private hospitals. Job content and relationship with hospital leadership are important predictors of general job satisfaction. General job satisfaction is one of the hospital leadership effectiveness indicators that the researcher considered, and it was further scrutinised in the following qualitative section. However, other determinants of health worker job satisfaction were sought as the phase explored why private hospitals are relatively better in health worker satisfaction.

The global empowerment is high (statistically significant) in private hospitals and yet the global empowerment measurement showed that the scores are not optimal in both on Addis Ababa's public and private hospitals. Four factors act as predictors for global empowerment and these are access to information, access to resources, formal power and psychological empowerment. The researcher explored why empowerment is not optimal in both public and private hospitals and also investigated other factors, which could potentially determine empowerment both in public and private hospitals.

The status of patient safety culture is also consistently high in private hospitals in all dimensions. The mean patient safety scores of both public and private hospitals were moderate (3.58 and 3.77) out of five. Two factors, management support for patient safety and managers/supervisors' expectations and actions, were the predictor of patient safety culture. Other determinant factors and as these two factors were further explored in the

second phase. Here, patient satisfaction score was relatively better compared to health workers satisfaction both in public and private hospitals, despite the fact that it was not adequate and the difference between private and public hospitals was statistically significant. The researcher explored why the satisfaction score (patient experience of quality of care) is not satisfactory/high. In addition, other factors that could potentially determine the quality of health care in hospitals were explored. The effects of leadership on all these variables (health worker satisfaction and empowerment, patient safety and quality of health care) were thus, explored in the second phase of this study.

Finally, the strategies which could potentially improve all these variables was formulated and presented as shown in chapter five of this study that is dedicated to presenting the strategy documents.

**Table 4-30: Variables included in the semi-structured interview guide from phase one study**

<b>Variables</b>	<b>Entities included in the key informant interview guide</b>
Effectiveness and outcome of leadership styles	General situation of hospital leadership
	What are the challenges of effective hospital leadership?
	What factors determine the improvement of the effectiveness of hospital leadership?
	What strategies do you recommend in improving hospital leadership effectiveness?
Health worker job satisfaction and empowerment	What is the general situation of health worker job satisfaction and empowerment?
	What are the challenges to effective hospital leadership?
	What factors determine the improvement of the effectiveness of hospital leadership?
	What strategies do you recommend in improving the effectiveness of hospital leadership?
Patient safety and quality of health care	What is the general situation on patient safety and quality of health care in hospitals of Addis Ababa?
	What are challenges of providing safety patient and high quality of health care in hospitals of Addis Ababa?
	What factors determine the provision of better patient and quality of care?
	What strategies do you recommend in providing safe patient and good quality of care?
Effect of leadership on health worker satisfaction, empowerment, patient safety and quality of care	Thoughts and perceptions of key informants on effects of leadership on health worker satisfaction, empowerment, patient safety and quality of care.

## **4.11. RESULT VI: EXPLORING FACTORS AFFECTING HOSPITAL LEADERSHIP EFFECTIVENESS, HEALTH WORKER JOB SATISFACTION AND EMPOWERMENT, PATIENT SAFETY AND QUALITY OF HEALTH CARE: USING QUALITATIVE METHOD**

### **4.11.1 Introduction**

The researcher made a contextual analysis on the study variables, leadership styles, health worker job satisfaction and empowerment, patient safety culture and quality of health care, using the phased approach. The first phase was dedicated to analyse, quantitatively, the situation of hospital leadership and its relationships with health worker satisfaction, empowerment, patient safety culture and patient experience of quality of care both in public and private hospitals of Addis Ababa. Based on the first phase, semi-structured interview guide was prepared and key informants interviewed. The second phase of this study anchored on qualitative methodology, content analysis.

### **4.11.2 Demographic characteristics of key informant interviewees**

The researcher conducted 11 key informant interviews. Among them, four were hospital leaders, two professional association leaders, two NGO senior program directors who are currently working on hospital quality improvement, two from the Ministry of Health and the remaining one from the Addis Ababa Regional Health Bureau. In addition, three key informants were interviewed on private hospital situations, six on public hospital, and the remaining two on both public and private hospitals. The following table shows the demographic variables of key informants.

**Table 4-31: Demographic profiles of key informants**

Key informant number	Participant code	Gender	Length of experience (years)	Age of key informants	Education	Current role/job
1	KIP01	M	25	50	MD/MPH	Program manager
2	KIP02	M	21	45	MD, Specialist	Provost, medical college
3	KIPr03	M	30	55	MD/Subspecialist	Vice president
4	KIP04	M	10	32	BSC/MHA	Deputy director
5	KIP05	M	22	45	BSC/MPH	Quality officer
6	KIP06	M	17	42	MD/MPH	Deputy director
7	KIPr07	M	35	55	MD/ Specialist	Manager
8	KIP08	F	32	52	BSC/MPH	Matron
9	KIP09	M	17	42	MD/MPH	Advisor
10	KIPr10	M	28	53	MD/Subspecialist	Manager
11	KIPr11	M	30	55	MD/Subspecialist	Manager

#### 4.11.3 Key informant discussion formats

The researcher initiated the data collection discussions after getting the appropriate time and place to conduct the interviews. In all interviews, he introduced himself, explained the general objective of the study and the findings of the first phase of the study (he produced brief first phase result summary and shared it before starting the interview), and initiated the interview. Eleven (11) key informant interviews were conducted until data saturation point was reached. The duration of interviews was 45 to 80 minutes.

#### 4.11.4 Qualitative data analysis and findings

All key informant interviews were transcribed, translated into English, and entered onto Atlas.ti.8.4.15 software. All interviews were coded with 992 codes created and these were reduced to 20 code groups. Then the researcher identified 7 thematic areas that emerged from the interview data. Table 4:32 below shows the 7 themes and associated sub-themes. A detailed explanation of each theme and its sub-themes is presented in the following section.

**Table 4-32: Summary of the main themes and sub-themes that emerged from the qualitative study**

Main themes	Sub-themes	
1. Empowering and enabling workforce environment	<ul style="list-style-type: none"> <li>- Working environment</li> <li>- Performance based recognition and financing</li> <li>- Respect for the profession</li> </ul>	<ul style="list-style-type: none"> <li>- Resources</li> <li>- Incentive package</li> <li>- Communication</li> </ul>
2. Transparent, accountable and effective hospital governance and leadership	<ul style="list-style-type: none"> <li>- Policies, laws and procedures</li> <li>- Leaders' competency</li> <li>- Incentive package for hospital leaders</li> <li>- Leadership succession planning and coaching</li> <li>- Hospital engagement platforms</li> <li>- Mission driven leadership</li> <li>- Empowered and engaging leadership</li> <li>- Responsive leadership</li> </ul>	<ul style="list-style-type: none"> <li>- Hospital leaders' recruitment, placement and promotion</li> <li>- Hospital board and management</li> <li>- Realistic leadership</li> <li>- Leadership commitment and ownership</li> <li>- Governance and accountability of university hospitals</li> </ul>
3. Health science education and continuous professional development	<ul style="list-style-type: none"> <li>- Health science student recruitment</li> <li>- Quality of health science education</li> </ul>	<ul style="list-style-type: none"> <li>- Hospital leadership education and training program</li> <li>- Continuous professional development</li> </ul>
4. Strengthening safety and quality systems	<ul style="list-style-type: none"> <li>- Priority for safety and quality</li> <li>- Blame culture/quality and safety awareness</li> <li>- System thinking</li> <li>- Data driven decision making</li> <li>- Professionals' scope of work</li> <li>- Team-based care and inter-professional communication</li> <li>- Standardisation of services/Evidence based care</li> <li>- Improve society health literacy/patient centred care</li> </ul>	<ul style="list-style-type: none"> <li>- Quality and safety structure</li> <li>- Learning and accountable organisation</li> <li>- Learning collaborative</li> <li>- Communication skills of professionals</li> <li>- System fragmentation and overburden</li> <li>- Compassion and respect</li> </ul>
5. Strengthen health care financing	<ul style="list-style-type: none"> <li>- Adequate health care funds</li> <li>- Performance-based financing linked to insurance</li> </ul>	<ul style="list-style-type: none"> <li>- Efficient use of resources</li> </ul>
6. Use of technology and innovation	<ul style="list-style-type: none"> <li>- Information technology for communication</li> </ul>	<ul style="list-style-type: none"> <li>- Encourage innovations</li> </ul>
7. Enhance role of private health sector	<ul style="list-style-type: none"> <li>- Double standards</li> <li>- Regulations, standards and policies/private hospitals</li> <li>- Procedure-based payment</li> </ul>	<ul style="list-style-type: none"> <li>- Favourable environment for the private health sector</li> <li>- Public private partnership</li> </ul>

#### **4.11.4.1 Theme one: Empowering and enabling workforce environment**

This theme related mainly to health worker job satisfaction and empowerment. The work force environment in private hospitals are by far better, and hence, job satisfaction and empowerment in private hospitals was higher, as affirmed both by phase one and two studies. The following six sub-themes are explained under this main theme.

##### **Sub-theme1.1: working environment**

The working environment in private hospitals is better, however, it is generally in a state of poor situation and unfriendly. Key informant KIPr10 stated:

*“I went once to ask on my relative in one of public hospital, and was amased about the environment. I thought is it a store or wreckage after a heavy war happened there? Or are people intentionally destroyed it? It is very difficult to imagine patients get treatments and improve after staying there.”*

Various reasons account for the above-noted private hospital environment. One of the reasons for lack of compassion and poor quality of care is the existence of an unfriendly environment and work over burden. Key informant KIP05 pointed out that:

*“Those who work on Emergency or other hectic places will continue working in the morning. Do you think this guy will deliver compassionate and respectful care? No, because that guy is exhausted and lacks sleep. This guy most probably will not work compassionately.”*

Instead, the private hospital sector seems oblivious to the reality that highly educated professionals care more for better working conditions rather than having better financial incentives. A key informant (KIPr11) affirmed:

*“... most of highly educated professionals do care for hospital environment rather than financial incentives.”*

Thus, the above work environment could create stress on practicing health workers as one key informant KIPr10 pointed out:

*“If your work environment is not comfortable, you get stressed.”*

### **Sub-theme1.2: Resources**

Generally, there are severe shortages of resources in public hospitals than in private ones, as affirmed by KIP04:

*“Starting from leadership of hospitals, they have critical shortages of inputs and resources.”*

It should be underscored that, while the shortage is more pronounced in public hospitals, private hospitals also get affected by shortages as noted by the same informant (KIP04):

*“Both public and private hospitals, they do have material and human resource constraints.”*

Another key informant (KIP03) commented:

*“Many physicians are not comfortable with their profession because a lot of scarcity makes them unsatisfied”.*

Therefore, internal satisfaction is seriously affected by these resource constraints. The reality is that access to resources and support affect empowerment, which means that their shortage has a negative impact as stated by one key informant (KIP04):

*“.....a resident/ intern could do whatever he thinks is necessary. The structural empowerment support system is lacking.”*

### **Sub-theme 1.3: Incentive package**

One of the factors for low job satisfaction is the inadequacy of financial incentives. One key informant (KIPr06) affirmed:

*“Financial incentive could be one factor for health worker dissatisfaction.”*

The dire situation forces some public hospital workers to engage in part time work to compensate their meagre earnings from their regular work. Nevertheless, most key informants agreed that providing financial access without a good working environment and inadequate resources undermines health workers' satisfaction. Instead, good working environment and adequate resources are a pre-requisite to health worker's satisfaction as one key informant (KIP01) stated:

*“You could not bring satisfaction using economic measure alone.”*

Therefore, the incentive package should encompass both the financial and non-financial. The provision of a generous access to long term education also assists to lower the burden of young professionals because this is one factor which escalates cost of living. Most young professionals pursue their long-term education whilst paying huge sums of money from their pocket and hence increase cost of living as stated by informant KIP08:

*“Young professionals should get opportunity to pursue their education.”*

#### **Sub-theme 1.4: Performance based recognition and financing**

The current Ethiopian health system does not recognise nor reward best performers. In fact, the system punishes the hard worker and promotes medical error due to overburden as one key informant (KIP06) explained:

*“Our current system punishes the diligent. If you have one committed person who does his/her job diligently, you tend to give all activities to that person and that person will be overburdened; that will create a safety hazard, because you over burden that guy.”*

Another key informant (KIP09) underlined:

*“Performance-based recognition and reward will motivate those hard workers to work hard more; and reject the bad apples. We will also use it for career development and link it with performance.”*

Finally, key informant KIP04 emphasised that:

*“Recognition of health workers should be based on objectively verifiable measurement and accordingly identify the best and worst performers.”*

#### **Sub-theme 1.5: Respect for the profession**

Currently, the health profession is losing its prestige, as put by key informant (KIPr03):

*“The profession loses its prestige and many are not recommending it for their children, to join the profession, previously that was not the case.”*

Various reasons account for this loss of prestige. However, the main reason is that professionals in the field do not respect the profession as stated by key informant KIP05:

*“These health workers undermine the efforts of others; and the society, by observing them, complains all health workers are bad and do not provide quality service.”*

As a result, there is need for an improved attitude from the medical professional as stated by key informant KIP02:

*“Health professionals must respect their profession unconditionally to safe guard and provide quality of health care.”*

The same key informant emphasised the role of professional associations in making the profession and professionals respected:

*“Professional associations must be innovative to protect the profession and professionals.”*

### **Sub-theme 1.6: Communication**

Currently intradepartmental engagement of professionals and interdepartmental and top management interaction is weak. This, as pointed out by key informant KIPr03, creates weak communication channels:

*“..... no clearly established channel for communication exists between departments, and top management and departments.”*

It should be underscored that communication between leadership and health workers has an impact on empowerment and job satisfaction, as underscored by key informant (KIP04) here:

*“Communication between leadership and health workers influences general job satisfaction.”*

Another informant (KIP05) expressed that:

*“Currently leadership and health workers do not listen to each other: health workers undermine the command of top leadership. “*

Hence, there is need to listen to health workers' concerns in order to improve health worker satisfaction as KIP01 underlined:

*“To improve health workers satisfaction, first, we need to listen them.”*

#### **4.11.4.2 Theme two: transparent accountable and effective hospital governance and leadership**

Governance practice comprises of: setting a shared strategic direction and objectives; making policies, laws, rules, regulations and decisions; cultivating accountability; engaging

stakeholders; raising, deploying and stewarding resources; and overseeing and making sure that strategic goals and objectives are accomplished (Management Science for Health Inc 2017:31). Governance and leadership are interchangeably used. Effectiveness of leadership measured from the perspective of a health worker has improved job satisfaction and empowerment as well as good quality and safety of health care. The ultimate outcomes of effective hospital leadership are to improve the health of clients/patients being served in that particular hospital. The following sub-themes are identified under this main theme.

### **Sub-theme 2.1: Policies, Laws, Procedures and Guidelines**

One of the major gaps in hospitals is lack of management and leadership policies, procedures and guidelines, which determine the scope of work of each leader at the position. This view is affirmed by key informant KIPr03 in the statement:

*“Structurally, there is no support mechanism, which ensures accountability and responsibility to help health workers’ executing their job safely. No policies and procedures are followed, making human lives at endanger.”*

Another informant (KIP04) reaffirmed this:

*“Public hospitals do not have clear and transparent admin and medical procedures, or if it exists, it’s inconsistent.”*

Those polices and laws, such as procurement and financial laws, which are currently on use in public hospitals are the same as those used in other civil service organisations. Thus, rather than creating conducive working environment and efficiency, they are hindrances in many ways, as stipulated by informant KIP09:

*“Yes, the system will take longer time to procure. Not only it will take longer time, it is also complicated.”*

Furthermore, Key informants recommended the use of a legal framework peculiarly adapted to hospital environment, rather than using the same procurement and financial laws adapted for all civil service organisations. This evident in the declaration made by key informant KIP01 that:

*“Independently of civil service commission, revise the procurement and financial system for hospitals.”*

## **Sub-theme 2.2: Hospital leader's recruitment, placement and promotion**

Most hospital leaders are assigned on political grounds and not based on their skill or knowledge. One informant (KIP05) confirmed this in the statement:

*"A high school physics teacher, without any hospital leadership education and preparation was assigned as chief executive officer for one big hospital."*

Another informant (KIP01) added:

*"Leaders are not assigned based on their merit; their turnover is high because of political appointment; these leaders are not sure about their stay in the position. They do not listen to health professionals because their reason of appointment is political and these leaders try to please those who appointed them."*

These politically-appointed leaders tend to team up with those who identify with them, and thus marginalise professionals, as key informant (KIP05) noted:

*"Politically appointed top leadership does not form a team of professionals in the hospital; they do like to team up with those who accept their ideas and not real professionals."*

## **Sub-theme 2.3: Leaders competency**

Currently hospitals have a limitation on the execution of their mission and vision; as one key informant KIP09 stated:

*"Hospitals have gaps in identifying their vision, mission and strategy and implement that."*

One reason for failing to identify the vision and mission is that leaders (both in public and private hospitals) have limited capacity as noted by some of the informants. Key informant KIP06 pointed out that:

*"Generally, hospital leadership has limited capacity to lead these hospitals."*

In addition, key informant KIPr11 noted that:

*"Private hospital leadership does not have a leadership which is equipped with knowledge and skills."*

Therefore, full empowerment can only be achieved through an improvement of leaders' capacity.

#### **Sub-theme 2.4: Incentive package for hospital leaders**

One of the reasons for high attrition of leaders (from top to bottom) is that leadership positions do not have attractive incentive package. Any additional incentive packages do not motivate them because of the burden associated with the responsibilities. Informant KIP09 retorted that:

*“Leadership has a lot of pressure to deliver, top management becomes fatigued. Additional benefits are not motivating....”*

In addition, informant (KIPr07) pointed out that:

*“If you ask health professionals, they will tell you it is a burden to assume leadership positions, head ache and it is not worthy to take it.”*

Interestingly, the lower leadership positions do invoke the same attitude as top hospital leaders. This is confirmed by informant KIP05 in the statement that:

*“Lower leadership positions could not attract competent people because of meagre incentives.”*

Another key informant (KIP08) emphasised that:

*“Position allowances are unfair for middle and lower leadership positions in hospitals; CEO and Medical director are paid better, whereas Matron and other case team leaders are paid only small amount.”*

These low incentives create difficulty for hospitals to attract competent and hardworking leaders to the position. Thus, informant KIPr08 suggested the following as a measure to attract able people:

*“If you make the payment attractive, you get the best leader because the reward is good. Turnover will decrease; even if you make them accountable and get measurable results based on the standard.”*

#### **Sub-theme 2.5: Leadership succession planning and coaching**

, there is no continuity of leadership because of s high turnover as KIPr03 explained:

*“Lack of continuity of management is expressed with the incumbent leader started an initiative and the next leader discarded that initiative.”*

One of the functions of incumbent leadership is to prepare a successor by coaching the prospective leaders, as stated by (KIP09):

*“Preparing successor should be one of the tasks of the current leadership: preparing future leaders while they are assuming and leading that hospital.”*

A further view, as noted by key informant KIPr07 is that:

*“Leadership trainings should be given by considering the possibility of high turnover. Training should include the middle level leaders as well (at the department levels as well). Leadership development programs which focus on that specific hospital. No need to bring a leader from another place.”*

### **Sub-theme 2.6: Hospital board and management**

There were previous attempts at building a strong board, as (KIP01) stated:

*“One of the major initiatives of hospitals was to lead hospitals by a team of professional leaders. In addition to lead hospitals with empowered boards; the reform entailed what was a professional hospital leadership and how hospitals could be organized professionally.”*

These efforts put some footages, such as creating a structure to lead hospitals professionally, and yet no strong board and leadership were created; as stated by (KIP09):

*“These hospitals boards are not strong. Every time we establish a board it fails; most boards are not functional (some do not convene even once per year). Board dysfunctionality is the hall mark of hospitals.”*

### **Sub-theme 2.7: Hospital engagement platforms**

There is the so-called public wing, which helps to engage the patient and patient associations, other civic societies and concerned citizens. However, the public wing loses its trustworthiness because of excessive political interference, as one informant (KIP05) noted:

*“Political gain seems the objective of this public forum, not to improve service quality.”*

The same informant added that:

*“Hospital board gathers the public every three months and get feedback from them. But they do not act accordingly. The meeting is nominal and has no any benefit. It is for the sake of politics the board gather the public, not to improve hospital services.”*

### **Sub-theme 2.8: Mission driven leadership**

Hospital leadership role, whether a leader is appointed politically or by merit, should uphold the mission of that hospital. Informant KIP01 affirmed this:

*“... if that guy at the top does not hold the vision of that hospital, rather he has another mission. I am not saying politics could not play a role; but the CEO mission is to improve the service of that hospital.”*

Another key informant (KIP06) added that the:

*“Primary purpose of leadership should be health care, creating supportive environments for health workers, rather than creating stress.”*

In addition, health worker satisfaction levels will increase if leadership creates a common purpose. He also added that the mission of the hospital must be humanised (KIP06):

*“Purpose of hospital should focus on humans, not on numbers.”*

That means mission of hospital is making the service human centred, rather than setting targets.

### **Sub-theme 2.9: Empowering and engaging leadership**

Currently, hospital leaders are not empowered to make decisions on critical and urgent matters. The informant (KIPr03) stated that:

*“There is a large gap on empowerment: at the general management, department head and staff level empowerment.”*

Another key informant (KIP02) added that:

*“While you are a department head, you cannot take financial decisions that are a great problem here.”*

In addition, leaders do not have any autonomy to fire and hire human resources and on finances, as stated by (KIP04):

*“When we see the way human resource management and finance decisions are made, they are not autonomous. Public hospitals cannot revise the fee and appropriately utilise the health care financing.”*

As a result, leaders should work to engage professionals. Currently, professionals, especially senior physicians, do not engage in the day to day activities of hospitals, as underlined by key informant (KI01):

*“Senior physicians do not engage in the system, and hence low job satisfaction.”*

As mentioned above, lack of this engagement results in low job satisfaction. This view is confirmed by the key informant KIPr07:

*“Professionals involvement in decision making is very poor.”*

The cause for this lack of engagement emanates from professionals as well, as KIP01 stated:

*“Professionals expect leadership to create conducive environment and they give up the causes to the leadership. For example, we do have a Drug and Therapeutic Committee. They complain that the required supplies and drugs are not available, but when you request them to engage in drug and therapeutic committee (which determine the type of drugs), they do not want to engage there.”*

But leaders should value the engagement of professionals, listen to them, respect their ideas and give space to engage as KIP08 explained:

*“Leaders should respect the idea of staff and value their engagement. It is not good to frequently intervene and not give individual workers any space nor empower them to solve their challenge that could affect engagement.”*

Currently hospital leaders try to engage health workers, but it is nominal and for the sake of plan achievement. Instead, empowerment must be active as KIP01 noted:

*“I am not saying just gathering people; it must be real engagement, starting from planning, care delivery, monitoring and evaluation of that hospital. They should engage with all of them and be active in the management of hospitals.”*

### **Sub-theme 2.10: Realistic (authentic leadership)**

As put by key informant KIP01:

*“Unrealistic expectation was created. People think government has all capacity to fulfil their need. But there are limitations.”*

This stand is also affirmed by KIP08:

*“Clients expectation is high, but we do not fulfil that, even from an infrastructure perspective.”*

The worst scenario is that even the health professionals who have been joining the field do not know what is at the ground as stated by informant KIP09:

*“Physicians’ expectation is high, whereas, what is at the ground is on the contrary.”*

The observation is that health workers do not understand the existing situation very well as stated by informant KIP01:

*“Some health workers do not understand the existing situation in the country.”*

Therefore, becoming pragmatic is necessary, as KIP01 stated:

*“Becoming trustworthy and openly communicating among health workers, hospital managements and government about the possibility, what is not possible, and the limitations should be thoroughly discussed.”*

It is also important to be wise recognise the effort of each individual as necessary. Informant KIP08 stated that:

*“Leaders should see staffs fairly and handle their complaints wisely. They must recognise each individual contribution and motivate staffs.”*

Similarly, informant KIP01 exclaimed that:

*“It must be clear that based on our resources, this is what we deliver. This should be communicated to the public. So, people will see that against our need.”*

### **Sub-theme 2.11: Responsive leadership**

One of the functions of a hospital leadership is to create a responsive environment for health workers and patients concerns.

The informant KIP06 stated that leadership must:

*“..... avoid mismanagement and unfairness in the system, system will make health workers to do by their capacity, not beyond that (health workers will be responsive in return, if the system (leadership) is responsive to their needs.”*

Failure to be responsive for the needs of health workers will result in dissatisfaction; as the same respondent added:

*“If top management fails to address the issues of health workers, it could be the reason for dissatisfaction.”*

Another informant (KIP09) strengthened the above point in the statement that:

*“Leaders must be responsive to the concerns of the staff and give answers, whether the requests from staffs are legitimate or illegitimate.”*

One of the competitive advantages of private hospitals is that their leadership is better in responding to the needs of patients and health workers, as key informant (KIPr07) stated:

*“Private hospitals have a responsive bureaucracy, and they get enough supply to treat patients. They are responsive compared to public hospitals.”*

The above point is also reaffirmed by a respondent from public hospitals, (KIP04 in the statement that:

*“Users prefer private hospitals for they could not get services in public ones; and the system in private hospitals is responsive to users’ reaction.”*

### **Sub-theme 2.12: Leadership commitment and ownership**

Currently, leadership commitment and ownership in public hospitals is very low, as stated by key informant (KIP06):

*“Level of commitment is not satisfactory.”*

The same informant underlined that the:

*“Sense of ownership and commitment is a prerequisite to lead this complex system.”*

### **Sub-theme 2.13: Governance and accountability of university hospitals**

Another problem in university hospitals is that there is confusion in line of reporting and governance, as (KIP09) stated:

*“Another thing is reporting line. Some hospitals, university hospitals, are dually reporting to the ministry of health and education. This must be very clear to avoid confusion.”*

#### **4.11.4.3 Theme three: Health science education and continuous professional development**

One of the themes that emerged from the qualitative study relates to health science education and continuing professional development of health workers. The researcher noted that this theme is cross-cutting and affects all variables studied in phase one of the study. Other sub-themes emerged and these are briefly explained below:

##### **Sub-theme 3.1: Health science student recruitment**

There are two kinds of professionals in the medical field, as stated by (KIP04):

*“Those loving their profession: dedicate themselves and risking their lives. Those who do not like their profession: do not reflect real ethics, indifferent, and do not dress appropriately”*

The second category of health workers most probably joined the profession accidentally, as reaffirmed by the same informant:

*“..... the second category who does not like their profession, those who joined the profession accidentally.”*

One of the causes for dissatisfaction is that students join the profession without interest and do not understand the profession well. Another informant (KIP01) stressed this point:

*“Causes for dissatisfaction may start from the college, where a wrong person may join the system, and they do not know the health care landscape at all.”*

Those who join the profession should have information about the cost they bear, otherwise they will be frustrated as stated by (KIPr03):

*“Medical education demands a lot and they get fed up if they join the field without considering the demanding nature of the field.”*

In fact, most of the problems in the current health care system (especially state of disrespect and abuse) start from health colleges, and if we want to change this, we need to start from health colleges, as KIPr10 underlined:

*“If we want to change their behaviours and respect others, we should work in medical schools.”*

Those joining the field must be carefully recruited, not solely on high school grades, which are the case in our country; it must be based also on other necessary criteria as well, as verbalized by KIPr03:

*“Recruitment must be given due emphasis to select those who are ready to serve and have pride in the profession.”*

### **Sub-theme 3.2: Quality of health science education**

Currently the quality of health science education is in dire situation as (KIPr07) stated:

*“Medical education is important for quality of health care. But medical education quality is dwindling in recent times.”*

The same informant underlined that both y medical and all kinds of health science education is declining:

*“As health is a team work, nurses, anaesthesia and other professionals could play a role, and quality of education for the professionals is low, and could affect the overall quality care.”*

One of the causes for low job satisfaction could be ascribed to low quality of education, as stated by KIP09:

*“Low/poor quality of education will result in poor capacity problem; dissatisfaction will follow then.”*

Another informant (KIPr03) stated that substandard education will produce substandard quality of care:

*“Quality of medical education is compromised, and they produce professionals who cannot give quality of health care.”*

Severe skill gaps and lack of profound knowledge is the manifestation of the current health science education, as stated by (KIP01):

*“Pre-service education is mostly theory based, more practical session must be thought off, to develop profound knowledge.”*

The education does not prepare the prospective health professionals to understand the context in which they are going to practice, KIPr03 pointed out that:

*“Interaction with patients is very limited; not context based: they graduate without understanding the social and economic situation of the people they are going to serve.”*

Another informant, (KIPr10) added that:

*“Contextualisation must be thought off, education is based on the contest, not only on the text book.”*

Another important issue is that the current culture of health science Education Colleges does not get prospective health professionals who respect and show compassion for patients, as stated by the same informant:

*“I do believe students develop this disrespectful manner from the culture of medical schools.”*

### **Sub-theme 3.3: Hospital leadership education and training program**

Hospitals are complex organisations and as such need leaders with a peculiar education. Informant, KIPr07 stated that:

*“I think hospital leadership needs special knowledge because it is solely based on health care. If training is available and leadership get that knowledge, things will be improved.”*

However, most of the hospitals have unprofessional leaders as confirmed by informant KIPr07 in the statement that:

*“Skill and knowledge of leadership are challenges for effective hospital leadership.”*

A long-term leadership education program in the Master of Hospital Administration was started in the previous hospital reform era in an attempt to make sure that hospitals are led by professionals. Informant KIP01 stated that:

*“One of the major initiatives of hospitals is to lead hospitals by a team of professional leaders. In addition to leading hospitals with empowered boards; the reform entails what is a professional hospital leadership and how hospitals could be organised professionally.”*

Another informant (KIP09) suggested that leadership education must be aligned with the health science education and students' learning must start from health science education colleges:

*“Leadership training should be aligned with health curriculum and students must have system orientation.”*

In addition to the formal long-term educational program, short to medium term leadership trainings are mandatory to continuously build the capacity of incumbent hospital boards and leaders. Thus, informant KIP09 stated that:

*“Trainings on leadership and coaching are important to take them out of fear and assume leadership position.”*

The same informant noted that focusing on hospital board and senior management is rewarding:

*“Strengthening hospital board and training for senior management engages them more, and motivates and inspires them. This senior management team should strengthen the capacity of all those leaders to the lower positions.”*

Long term education (second and third degree) has been suggested to improve the current safety and quality situations in Ethiopia; KIP09 suggested that:

*“... Quality professionals should be engaged and start second and third degree on health care quality.”*

### **Sub-theme 3.4: Continuous professional development**

Continuing professional development (capacity building) favourably affects health workers knowledge, skills and attitude. Currently, a lot of capacity building trainings are given, but these are not linked to needs, as pointed out by informant KIPr10:

*“In this country, most of the trainings are useless. As Ethiopian, we always gather up, but no change.”*

In addition, should be centred on need and skill-based trainings, which means that hotel-based trainings must be discouraged. Informant KIP02 underlined this in the statement:

*“Skill and need based trainings; these hotel-based trainings do not make any difference.”*

Finally, continuing professional development should focus on competency and need, as confirmed by informant KIP02:

*“Competency based in-service trainings: identify gaps and based on that prepare the in-service training materials. More innovation is needed to improve quality of trainings.”*

#### **4.11.4.4 Theme four: Strengthening safety and quality systems**

The major focus area of this research is to examine the effects of leadership on improving patient safety and quality of care. In phase one of the study, the researcher determined patient safety culture and patient experience of quality of health care. In this phase (qualitative part), one of the major themes that emerged is strengthening safety and quality systems. Multiple sub-themes emerged and they are discussed briefly below:

##### **Sub-theme 4.1: Priority for safety and quality**

Previously, quality and safety were not priority issues. However, the thinking is changing, as a key informant (KIP08) stated:

*“In previous times, we worked to increase access of health care, irrespective of quality. Now quality comes despite we are not yet attaining the desired quality of care.”*

Quality and safety are now being given due emphasis KIPr07 said:

*“Quality must take precedence rather than numbers.”*

Another informant (KIP04) added:

*“Patient safety should be the focus of each and every hospital, and priority must be given.”*

Patient safety is not given due emphasis at the system level, as elaborated by KIP04:

*“At the system level, there is not move to promote patient safety; may be at the department level there is.”*

The necessity of quality of care in private hospitals is also emphasised by KIPr11:

*“Providing quality of care is a matter of survival in private setup. Due to competition, quality is moving in a better direction. This is not so for the sake of ethics; it is due to competition.”*

##### **Sub-theme 4.2: Blame culture/quality and safety awareness**

Safety awareness is way behind the expected level. Key informants underlined that there should be a paradigm (mind set) change to practicing medicine in hospitals. Firstly, informant KIP06 noted that:

*“We need to change our societal culture. Health workers do not want to practice patient safety measures, because they have “this could not happen to me” attitude. We need paradigm shift.”*

Another informant (KIPr10) added:

*“Safety is not part of our culture. While health workers draw blood, they do not want to use gloves. They will tell you glove discomfort them. I will tell health workers to test and vaccinate for Hepatitis B, they are reluctant to do that.”*

Furthermore, malpractices are common in hospitals as noted by KIP09:

*“In hospitals, there are a lot of malpractices.”*

Key informant, KIP01 also added that:

*“Punitive attitude is common in hospitals, incidents are underreported; hospitals do not have a favourable environment to openly report incidents and learn from those incidents.”*

The blame culture could affect team spirit and empowerment, as pointed out by KIP06:

*“Blame culture affects the team spirit and empowerment.”*

If a medical error happens, the following will happen, as stated by KIP05:

*“If a medical error happens, the hospital will hand over the guy, who sustains that error, to the court. This will facilitate blame culture.”*

The same informant suggested that:

*“Better to open up, rather than blaming that guy who sustains injury and prevent that incident happening again.”*

Generally quality and safety awareness is in poor state as pointed out by KIP05:

*“Leaders and service providers have a gap in understanding what better-quality look like.”*

Another informant KIP08, further strengthened the above point with the statement:

*“Health workers think that only quality officers do impact quality, most of them are resistant to change.”*

Hence, informant KIP10 recommended that there is need for continuous patient safety awareness programs as a way of continuing capacity building:

*“Continuous education is necessary to change the culture of patient safety.”*

#### **Sub-theme 4.3: System fragmentation and overburden**

Most key informants agreed that Hospitals, particularly public ones, in Addis Ababa are overburdened. Every patient from the four corners of Ethiopia comes and gets treatment from these hospitals as remarked by KIP02:

*“Hospitals do have huge catchment and structural expansion does not match the needs of the society.”*

Most hospitals do their business beyond their capacity and as a result, they end up having limitations on medical equipment, human resources, infrastructure and medicines. The situation is worsened by the government’s addition of new kinds of services as stressed by KIP02:

*“Because only new services are added without redesigning the system, there is a lot of waste whether the service we add is high tech.”*

In addition, most of the hospitals in Addis Ababa are concentrated in the old city, and yet the expansion and addition of new services is not matching d the demand of the society.

#### **Sub-theme 4.4: System thinking**

Key informant KIP01 stated that:

*“First understand that hospitals are complex organisations and system thinking is important.”*

The same informant added that:

*“System thinking must be given priority, rather than making individual health worker accountable for each and every incident.”*

Quality of care will be lowered if the system continuity is disrupted at any point as stated by KIPr07:

*“Starting from the point when a patient is registered till, he/she leaves that, if a system is disrupted at any point, quality will be compromised. If laboratory service quality is low or overburdened, the system will be disrupted, resulting in low quality of care.”*

Another key informant (KIP09) further substantiated that:

*“Patient safety is a reflection of the whole hospital system, and we do not see it in isolation.”*

Currently, there is a system problem to improve patient safety as KIP02 stated:

*“There is a system problem in improving patient safety.”*

The same informant stated further that unfortunately, health workers are system illiterate:

*“Health workers are not responsive to the system and context. They are not adaptive to the system”*

Ultimately, there is need for profound and subject matter knowledge to improve quality and safety. Profound knowledge, as stated by KIP02, includes:

*“System thinking, knowledge on data, human psychology and behaviour.”*

#### **Sub-theme 4.5: Quality and safety structure**

Currently, quality structure is not strong in the country. Key informant (KIP09) emphasised the importance of quality and safety structure:

*“To cascade quality initiatives, we need to have structure and leadership: starting from health ministry to community.”*

The informant also noted that:

*“We need structure, documents and protocols, adherence on the documentation, use of data to improve quality and inputs to provide quality of care.”*

Furthermore, a strong quality and safety structure needs to be instituted to work on quality and safety in hospitals, as remarked by KIP02:

*“Strong departments need to be instituted in each hospital having active and energetic people, indicators to follow 24 hours and criteria to take actions. Emphasis must be given for critical places like emergency department.”*

Another observation is that regulation (accreditation) is not uniformly implemented in the current hospital systems. This is confirmed by KIP06 in the statement that:

*“A lot of public hospitals do not undergo accreditation and licensing process; rather, thinking only access of services, they are not subjected to the process of accreditation and regulation, especially in public hospitals. Patient safety is not given priority. If we do give priority, we stringently implement these procedures.”*

As a result, a quality appraisal system is suggested to improve quality of health care, underscored by KIPr7:

*“Appraisal of hospital quality management system and recognise the best performing ones are important to create a sense of competition among hospitals.”*

#### **Sub-theme 4.6: Data driven decision making**

Currently hospitals do not have strong data systems that cater for actions related to safety. Informant, KIP01 states that:

*“Because there is no adequate data system, hospitals do not decide based on evidences to improve patient safety.”*

In addition, the quality of data is poor, as pointed out by informant KIP09:

*“If you see data and measurement, quality of data is very poor. If you do not have data, it is difficult to achieve quality. Beyond this, there are serious issues of data quality, false reporting is very common.”*

Another informant, KIP02, added:

*“Many leaders do not use data, measure them nor use it for improvement.”*

The same informant (KIP02) explained why many leaders do not use data:

*“They lack profound knowledge; they are illiterate for data-based decision making.”*

It is evident that data driven decision making must be in use as emphasised by the same informant:

*“Data must be in use to monitor quality and safety of health services.”*

In addition, key informant (KIP04) underlined the importance of data monitoring and evaluation in this way:

*“Patient safety needs monitoring and evaluation framework, as well as surveillance program.”*

#### **Sub-theme 4.7: Learning and accountable organisation**

Almost all participants agreed that the current hospitals do not ensure accountability and responsibility. This lack of accountability and responsibility deters qualified people assuming leadership positions. Thus, (KIP09) expressed that:

*“Lack of accountability and transparency make the position very difficult to assume and make them at odd with their friends if they join the management.”*

In addition, lack of accountability results in low safety and poor quality of health care as four out of 11 informants asserted. The views by interview informant KIP05 are instructive here:

*“Why senior physicians allow students to treat patients alone? It is because nobody makes them accountable. Our attitude is bad; we do not have safety culture practice at all.”*

Lack of accountability is indeed the sole problem of public hospitals as key informant (KIPr10) asserted:

*“Lack of accountability of public hospitals, no one is accountable for what he/she does. If a hospital sustains medical error, it will not have any consequences.”*

Another informant (KIPr03) emphasised that:

*“When a person becomes a full professor, he/she stops working full time surgery, and focus on his private practice and other issues.”*

#### **Sub-theme 4.8: Learning collaborative**

Three out of 11 key informants suggested the introduction of learning collaboration between public and public, private and public and private and private hospitals. Currently this collaborative trend is not functional. As a result, communication between hospitals is key to improve quality of care as stated by KIP04:

*“Collaboration among hospitals must be established to improve quality of care.”*

#### **Sub-theme 4.9: Professionals’ scope of work**

Key informants asserted that professionals do not have any scope of work and thus, do whatever they like. Informant KIPr03 disclosed that:

*“Anybody can order computerised tomography (including interns), without going to the basic first. This could mean exposing one to dangerous rays as well as high cost to the patient. Scope is not determined in our country.”*

The lack of scope of work means that even the rational use of antibiotics is derailed because anybody can order what he/she wishes. This is, however, not the case in other countries as confirmed by the above key informant in their explanation regarding Sweden’s handling of the scope of work:

*“In Sweden, the system does not allow an intern to prescribe strong antibiotics. Rational use of antibiotics is complied. Ceftriaxone is prescribed by senior physicians. Still, in Sweden, ampicillin is working well.”*

#### **Sub-theme 4.10: Team based care and inter-professional communication**

The current health care system has a chaotic structure with each and every professional reporting to multiple department heads, rather than having one team leader. This destroys chain of command and accountability as stressed by KIP02:

*“At the case team level, every team member reports to multiple heads, rather than one team member lead (nurse to matron, laboratory to laboratory heads etc). This destroys interdisciplinary team spirit. Multiple heads of team members.”*

Therefore, there should be an inter-disciplinary team at every hospital to promote better quality of care.

#### **Sub-theme 4.11: Communication skills of professionals**

The existing professionals’ communication skills are not good and most respondents underlined the need for capacity building on communication skills. Key informant, KIP04 stressed the importance of good patient communication as noted here:

*“Better communication improves patient safety.”*

However, the responses show that private hospitals are by far better in communication and noted in the remarks made by key informant KIPr07:

*“Compared to public hospitals, private hospital professionals communicate their patients well, because they consider their patients as their kings and they do care better.”*

It is thus, clear that, the situation in public hospitals is very dire, as reported by KIP05:

*“.....the resident has no good manner, they do not listen you, sever communication barrier exists, you cannot even tell you have specific drug allergy.”*

#### **Sub-theme 4.12: compassion and respect**

There is a general agreement among key informants (5 out of 11) that the current health care is not compassionate and respectful. For example, KIPr03 pointed out that:

*“Starting from guard to medical professionals, health workers do not have attitude of servant leadership; they are not enthusiastic; they are apathetic.”*

This condition arises from external and internal factors. Some attributed to external cause because health care is overcrowded and health workers are dissatisfied, thus triggering low respect as noted in the statement by KIPr07 that:

*“Dissatisfied professionals could not be compassionate and give satisfying health care.”*

The major reason for lack of compassion and respect is internal as KIP02 remarked:

*“They will tell you I am not compassionate because of the work load, but they will not become compassionate if you decrease the workload; we must have this consensus.....”*

However, it must be clear that the development of lack of compassion and respect is not from the family nor the external environment as our culture does not advocate that. Informant KIPr07 explained clearly this view:

*“Our culture does not have any relation with poor quality of care; in fact, it favours respect and compassion.”*

Compassion and respect are the integral part of quality of care. As a result, any service that is not respectful nor compassionate will not yield good quality of care, hence, the above informant remarked:

*“If medical service is not compassionate and respectful, we cannot say quality of service is given.”*

#### **Sub-theme 4.13: Standardisation of services/Evidence based care**

Many informants agreed that standardisation of services is a powerful technique to improve efficiency of services as well as quality and patient safety. A simple tool, like the WHO

Surgical Checklist will avert many disasters if we use it consistently. However, standardisation of services in Ethiopia is far behind as underlined by KIP02:

*“Glove and surgical blade use in operation and Medical ward is the same. Because of lack of standardisation, resources are squandered, and we do not track this.”*

A critical observation evident in the responses shows that culture is a determining on the o use of tools to improve patient safety. Thus, KIPr03 emphasised that:

*“Even if WHO surgical checklist is small, it is far challenging to implement that because culture is a determining factor.”*

The practice in other countries is entirely different, as the same informant (KIPr03) said:

*“If you fail to use the checklist, you will be in trouble, and accountable for what will happen. But in our country this practice is not mandatory.”*

Ultimately, the informants recommended that this practice must be started soon to get the benefit of standardisation and improve efficiency and accountability. In addition, care must be standardised based on current knowledge and practice as noted by KIP09 that:

*“Quality must be evidence or knowledge driven.”*

#### **Sub-theme 4.14: Improve society health literacy/ patient centred care**

Respondents said, most of the public is not happy about these hospitals. Timeliness and patient centeredness are the major problem raised by respondents. The society’s awareness is increasing and yet public engagement is still low as noted by KIP01:

*“Public engagement in hospitals is very minimal.”*

Key informants KIP01 and KIP04 also stressed that quality should be defined from the perspective of service users. However, an interesting observation is that the increase in

access has been met by a similar increase in society’s expectations and the reality is that both sides do not match. The society’s consciousness is also increasing owing to exposure as note by KIPr11:

*“Society’s consciousness is improving (society is demanding); a lot of patients have the chance to visit hospitals in abroad.”*

Thus, the key informants suggest that the public must be engaged in order to improve quality of care. Informant KIP01 emphasised that:

*“Lack of public engagement could be considered as a bottleneck for effectiveness of hospital leadership. Engaging the public will help to improve quality of care.”*

Here patients' conduct will play a big role. For example, a demanding patient will help to improve quality of care as noted by KIPr10:

*“A demanding patient will help to improve quality of care. That is one of the differences between public and private hospitals. Professionals will do a mind-set shift if patients become demanding.”*

A further suggestion focuses on making the service person-centred. This is noted in the views by respondent KIP06 that:

*“We must personalise our purpose (make it to improve the status of health for that person), professionals must say I do this for this person not to get infection, rather than saying to reduce infection rate.”*

#### **4.11.4.5 Theme five: Strengthen health care financing**

Health care financing, which includes allocating, collecting, and utilising finances for health care, is one of the areas that emerged from the qualitative study. Despite efficiency being one of the issues; health care is not adequately financed in Ethiopian health care. The researcher identified the following sub-themes.

##### **Sub-theme 5.1: Adequate health care funds**

Health is so expensive that it needs adequate finances for inputs and human resource that are very costly. The current health care is not adequately financed, and remarked by KIPr03:

*“To get good quality of health care, it should be well financed. The total budget of huge university hospital is 3 million USD; this money cannot cover even the cost of medicine, let alone the whole operations in this hospital.”*

The issue of empowerment of health workers and leaders in hospitals was raised, however empowerment without adequate budget of is useless as KIP06 noted:

*“Full delegation with adequate budget is necessary.”*

A further observation is that informants lack knowledge on the cost of health care. The informant KIP01 remarked:

*“The cost of health care is an area and much is not known about it...”*

Nevertheless, while the main objective of public hospitals is not to make profits, these hospitals should get adequate funds from any sources as, KIPr03 emphasised:

*“Good quality of health care has costs and a body must cover that: either the government, insurance or the community itself. It should be determined.”*

### **Sub-theme 5.2: Efficient use of resources**

Although there is an inadequacy of health care funds, there still exists a severe inefficiency at the system level. As a result, huge resources are squandered in the health care as noted by, KIP02:

*“There is a lot of resource squandered, resources wasted because of system failure.”*

The cause for inefficiency is at the system level as noted further by the same key informant, KIP02:

*“System failure is the root cause of inefficiency. Without rectifying this, if you increase the resources, you end up with little changes of the outcomes.”*

The same informant expanded this idea in the statement that:

*“If we increase the infrastructure by double, we do not expect that the output will double because of system bottlenecks. The same unchanged system will continue working even if we invest on the resources.”*

Another informant, KIP06, added:

*“We do not have a shortage of human power, we do have a lot in many places, and we do have a system in-efficiency. In efficiency is very prevalent in our institutions.”*

Thus, the system inefficiency and administrative red tape deters able professionals from assuming leadership positions as noted by KIP09:

*“Systems will create stress on the management; it will get the management frustrated, burnt out, and leave the place.”*

However, private hospitals have a better and efficient system. One of the reasons could be exposure to competition as stated by KIPr0:

*“Private hospitals will improve efficiency of the services; make it competitive based and the cost will be lowered.”*

Therefore, lack of motivation, controlling mechanism and other causes make the system less efficient.

### **Sub-theme 5.3: Performance-based financing linked to insurance**

One of the functions of insurance should be to improve accountability and standard compliance. Health insurance must refund health institutions based on the extent to which these institutions comply with the current guidelines and protocols that will improve quality, safety and efficiency. Respondent KIP09 emphasised that:

*“If we go to the insurance scheme, we need to increase our productivity, gear up the system and increase accountability.”*

Another informant, KIPr03 added:

*“Those who are on the service, no accountability, they are over empowered. There is no system that makes them accountable. In other countries insurance makes them accountable.”*

#### **4.11.4.6 Theme six: Use of technology and innovation**

One of the themes that emerged from these qualitative interviews is that the use of technology and innovation helps to improve efficiency and outcome of health care. The following few sub-themes emerged under this main theme.

### **Sub-theme 6.1: Information technology for communication**

One area identified as a gap in hospital leadership is lack of a platform for communication. In addition, there is no standard medium of communication among departments, units and directorates. One key informant (KIPr03) explained the experiences of India:

*“Let me give you the experience I saw in India. Every computer in that hospital is networked, and every day notices, key notes of clinical director and the president are available for everybody. In that big institution, what is happening in the compound could be easily accessible on your desktop, without going anywhere.”*

The same informant added that the situation in his hospital here in Ethiopia is entirely different:

*“What about here? You do not know what is/ will be going on in the compound. You hear information just like the clients in the hospital. You do not know what new information is coming either from the hospital management, the president or from any other concerned body.”*

### **Sub-theme 6.2: encourage innovations**

Current system in hospitals does not encourage innovations. The system is not open for innovation as, KIP01 noted:

*“Despite becoming innovative and bring a benefit, you will be punished as far as you bypass the law. System is not open for innovation. Redundant and unwanted procedures robbed the empowerment of the leadership to innovate.”*

Different innovative ideas should be encouraged to improve the quality of health care and engagement of health professionals. Some innovation such as, like private wings, Addis Ababa hospitals capacity enhancement forum, and quality supervision and mentoring team, is being tried in government hospitals.

#### **4.11.4.7 Theme seven: Enhance role of private health sector**

In phase one of this thesis, the researcher determined whether there were differences regarding leadership styles, health worker satisfaction and empowerment, patient safety culture and experience of quality of care between public and private hospitals. All other variables, except the first one, show differences. In the second phase, private hospitals were given due emphasis and one of the thematic areas identified by key informants was the role of the private health sector. The researcher identified a few sub-themes and these are presented below.

### **Sub-theme 7.1: Double standard**

The government’s attitude and practices alienate and hurt the private health sector tremendously. Various double standards are practiced by government. For example, medical board certificates and medical examination certificates are not equally acceptable as do public hospitals; (KIPr11) said:

*“Private hospitals are devoid of equal treatment. In this country, sick leave, except from public hospital, we do not accept from private hospitals. Board certificate, except public hospitals, we do not accept. A lot of dichotomy exists in this country which denies private health institutions.”*

Access to long term education was also raised as an issue. Private practitioners do not have the opportunity to pursue their long-term education (second and third degree, specialisation and fellowship). Long term education is only delivered by government-owned universities and government prohibits private practitioners from accessing it. This situation creates undermines private sector professionals in various ways as noted by KIPr11:

*“Those health workers who are strong and want to pursue their long-term development could not join us because access to education is blocked for these practitioners. But the most energetic professionals are those who want to pursue their education.”*

New initiatives which include, short term to medium term trainings, adopted by health ministry do not embrace private hospitals. KIP01 explained that:

*“But due to limited capacity, the ministry focuses only on public hospitals.”*

Even the application of hospital standard regulation (Ethiopian Food Medicine Health Care Administration and Control Authority, EFMHACA) is not uniform in both public and private hospitals. KIPr10 stated in confirmation to this observation:

*“While 50% of people get health service from private; rather than helping and thriving the sector, a lot of burden is imposed on it. No public hospitals are closed due to the EFMHACA regulation, but a lot of private hospitals and clinics were closed; when we compare quality of care rendered by public and private hospitals, their quality is not comparable.”*

### **Sub-theme 7.2: Regulations, standards and policies/private hospitals**

Current regulations and standards are undermining private hospitals. Of notable importance are two: EFMHACA hospital regulation standard and labour law. The EFMHACA hospital regulation weakens the private sector as noted by KIPr11:

*“The requirements are unachievable. Premise: many classes (classes are large). It is difficult to get professionals required on the standard. Naming of the institutions is not aligned with the previous trend and standards. Primary hospital (we do not understand*

*that). If a person wants to open neurology hospital, there is no such thing, only centre. Previously the nomenclature was clear.”*

Labour law hinders the operations of private hospitals. The law favours employees and it creates difficulty for the employer to take actions which will improve quality in private sectors as noted by KIPr11:

*“Because the law protects that employee unfairly, the owner could not take comparable action on employees.”*

In addition, public hospitals, just as private hospitals do not have a management manual as noted by the same informant that:

*“Private hospitals do not have management manual, which possibly dictates workflow. Their association or ministry of health have not prepared any hospital manual to make it consistent.”*

### **Sub-theme 7.3: Procedure-based payment**

The procedure-based payment system is one area identified in private hospitals, which should be discouraged. This puts pressure on physicians to order unnecessary procedures and laboratory investigations, which ultimately increases the cost of health care on private hospital users, KIPr11 said that:

*“Commission based payment should be avoided, and the system should encourage those who work hard, and demotivate the lazy, to improve job satisfaction.”*

### **Sub-theme 7.4: Favourable environment for private health sector**

The two most important sectors, yet not given due emphasis in Ethiopia, are health and education. The informant, KIPr10, noted that:

*“Government does not advocate the private health sector, rather it does for hotel and tourism (they think that this sector will bring foreign currency). This sector gets loans and free land easily.”*

In addition, government does not have a favourable attitude and confidence with the private health sector, KIPr07 said:

*“You could not get a land to build a general hospital; only for tertiary hospital you could get land (for free). Even if you get that land, initial investment is very huge to establish the hospital.”*

The observed un-conducive environment has resulted in private hospital owners' diversion of their investment, KIPr11 said that:

*“Private hospitals are not well treated and they are diverting their field. Government do not protect the profession and institutions as well. Without court order, professionals will be in custody. Professionals are ashamed of their profession. Media abuses its responsibility and attacks health professionals and the profession.”*

Finally, the same informant also noted that their various other problems in private hospitals:

*“The first thing is supply related to shortage of foreign currency; Interruption of electricity and water (Power fluctuation damages the equipment); shortage of qualified personnel from the market.”*

#### **Sub-theme 7.5: Public private partnership/system harmonisation**

All informants recommended that public and private health sectors should work in harmony rather than compete with each other. Here is the recommendation as given by KIPr07:

*“In private hospitals, there are untapped potentials, government must support them. The standards must be completely revised. Government should examine the policy direction it follows. Highly specialised services must be left for private setup. Specialised services are highly demanding and that must be left for private setup.”*

Currently, there is high surgical backlog in public hospitals, whereas, in-patient beds in private hospitals are empty most of the time, which indicates an under use of resources and the need for a system harmony between the two sectors. Respondent KIP01 noted that:

*“Private and public hospitals do work independently and they do not maximise the resources they have. They serve the same patients, but they lack collaboration and resources are being wasted.”*

Private hospitals are not exploited well and system harmonisation is way behind. The harmony between private and public hospitals must be improved in order to optimise the maximum use of resources, KIP01 underlined that:

*“We need hospitals to excel at a certain area and the other ones on other areas and integrate them as a system may help a lot. It is so, because they serve the same population. But now they are compartmentalised.”*

There is a lack of harmony among private hospitals. As a result, the sector’s institutions cannot protect each other as noted in the response by (KIPr11) that:

*“Because there is no integrated system in private set up, and an employee who leaves a hospital because of misconduct will leave and get employed in another private hospital.”*

Finally, one key informant (KIPr10) stated that:

*“There is a lot of opportunity in this country, but government must cooperate with stakeholders. If government could not support, at least it must stop creating obstacles.”*

#### **4.12 OVERVIEW OF THE RESEARCH FINDINGS AND INTEGRATION OF QUANTITATIVE AND QUALITATIVE FINDINGS**

Leadership styles, outcomes, extra effort and the effectiveness of leadership in both public and private hospitals did not have significant difference. Leadership Despite leadership effectiveness is reportedly better in private hospitals and yet the source of leaders and education for this sector is public hospitals. As a result, it is not surprising that the culture in both private and public hospitals is the same. The qualitative study results show that health science education colleges determine the overall hospital environment cultures (perceptions, rituals, attitudes) and leaders from both the public and private hospitals mainly come from these colleges and as such have a common source of knowledge, skill and attitude. In addition, leadership in both kinds of hospitals is entangled with many problems with severe leadership competency deficiencies existing in both public and private hospitals. In fact, private hospital leadership have additional burden on leadership as they must comply with the existing and burdensome laws. Here, private hospitals suffer from double standards and these extra burdens impact negatively on their outcomes and effectiveness.

Generally, there is a low health worker satisfaction both in public and private hospitals and better job satisfaction within the private hospital practitioner. One’s relationship with management and job content influence the general job satisfaction. It was also noted, regarding empowerment that, while private hospital health workers have better empowerment at the global level, those in Addis Ababa still have a low empowerment. Four variables, access to information, access to resources, formal power and psychological

empowerment, influence global empowerment. These findings are further substantiated by the qualitative study observations that the current hospital systems have serious work environment problems. The observed problems are that: the health system is in a state of poor situation and unfriendly; health workers are overburdened; there are severe shortage of resources; and health workers do not get adequate support from the leadership as well as lack necessary information. In addition, health workers do not have enough incentives to sustain their life, and their individual effort is not recognised.

Further observations show that health workers do not have adequate empowerment. Their formal position does not give them appropriate responsibility with discretion to decide on finances and human resources. However, competition drives the work in private hospitals and this makes private hospital health workers have a relatively better job satisfaction and empowerment. The researcher observed that competition is the main factor making private hospitals stand at an advantageous position than their public counterparts. Finally, communication between leadership and health workers is seriously impaired such that both parties do not candidly listen to each other, which ultimately affect both health worker job satisfaction and empowerment.

The first phase of the study explored patient safety culture and the experience of quality of health care. In both cases, patient safety culture and patient experiences of quality of care were not optimal. This is despite the observation that the private hospitals score on patient safety culture and patient experiences of quality of care were relatively better. In addition, patient safety and quality were deeply explored in the second phase (qualitative study) and a myriad of factors which affect both important variables emerged as outlined in the following paragraphs.

Safety and quality are not priority issues till recently. The system has a characteristic blame culture that seriously affects safety and quality of care in Ethiopia. Lack of responsive, accountable and learning organisation also harms both agendas. System fragmentation and overburden is the hallmark of our hospitals and thus, a lack of professional scope of work leads to low quality in hospitals. The current hospital does not have strong quality and safety structures, systems, procedures and standards, as a result, care is delivered without evidence of given guidelines. Therefore, swift action and re safety and quality can be ensured by data driven decision making, a reality that is not strong.

A grounded health science education leads to a good quality of healthcare. However, the observation is that health science education has its own myriad of problems. The problems include that fact that, health science student recruitment is based only on high school grades, without considering aptitude, and the quality of health science education is substandard.

Finally, health care is not adequately funded and innovation is lacking which result in low quality of care. At the same time, the researcher learnt from the two phases that hospital leadership seriously hampers health worker satisfaction, empowerment, safety and quality of health care.

#### **4.13 CONCLUSION**

The chapter considered the study results associated with the first five specific objectives of the thesis. The findings indicated that the leadership measurement indices showed no style difference between public and private leaders at the level of transformational, transactional and ineffective leadership. However, the health worker satisfaction, structural and psychological empowerment, patient safety culture and patient satisfaction measurement indices show that differences existed between public and private hospitals. In all these indices, private hospitals are favourable for health workers and patients. It was noted further that health worker satisfaction and psychological empowerment affected patient safety culture in a direct way. The findings of the first phase of this study were further substantiated by the second phase of the study, with the first and second phase study results integrated.

The next chapter focuses on the final specific objective of this thesis: strategies to improve effectiveness of hospital leadership to improve patient experience of quality of care, health worker job satisfaction and empowerment, and patient safety and quality of care.

## **CHAPTER 5**

### **PROPOSED STRATEGIES TO IMPROVE THE EFFECTIVENESS OF HOSPITAL LEADERSHIP**

#### **5.1. INTRODUCTION**

This chapter speaks to the seventh specific objective: strategy to improve effectiveness of hospital leadership. The researcher has so far presented findings from the study's first and second phases and made triangulation of the two phases. The researcher's focus in the first phase (both for public and private hospitals of Addis Ababa) of his study was on: leadership styles, health workers' satisfaction, empowerment, patient safety culture, patient satisfaction, relationship among health workers' satisfaction, empowerment and patient safety; and correlation among all these variables at hospital level, as well as the contextual factors affecting effectiveness of hospital leadership, health worker job satisfaction and empowerment, patients safety and quality of health care. The second phase dissected the situation on the ground and made strategic recommendations to improve the general hospital situation, specifically on matters related to hospital leadership and the quality of health care.

#### **5.2 CONTEXTUAL ANALYSIS OF HOSPITAL LEADERSHIP AND QUALITY OF CARE IN ADDIS ABABA**

The researcher used a phased approach to make a contextual analysis on hospital leadership and quality of care rendered in Addis Ababa hospitals. The first phase engaged in a quantitative analysis of hospital leadership and its relationships with health worker satisfaction, empowerment, patient safety culture and patient experience of quality of care both in public and private hospitals of Addis Ababa. The findings from this phase were further analysed in the second phase of the study based on a qualitative study using content analysis. The researcher, in the second phase, gathered interview responses on the same factors, as in phase one, in an attempt to understand the views about and experiences on the ground. The second phase helped the researcher to understand clearly the situation on the ground and make strategic recommendations to improve the hospital leadership and the quality of health care. As a result, the strategic priority areas are presented below, first a summary finding of phase one, and then the second summarising phase to findings.

## **5.3 STRATEGIC INTERVENTIONS TO IMPROVE HOSPITAL LEADERSHIP EFFECTIVENESS AND QUALITY OF CARE IN ADDIS ABABA**

### **5.3.1 Introduction**

The researcher's previous discussion on phase one study findings, which are expanded using the qualitative method in phase two, noted that hospital leadership and governance is the wider context (framework) for job satisfaction, health worker empowerment, patient safety and quality. The researcher also observed the centrality of patient safety and quality as an outcome, and that health worker empowerment and job satisfaction (through the sub-function of participation and creating accountability) can be viewed as part of hospital governance. Thus, the researcher outlines the strategies that should be implemented to improve health worker job satisfaction, empowerment, patient safety and quality. The framework outlined below is a decision-making process framework in hospitals, which makes it necessary for the researcher to recommend what hospital governance should do to improve all the above-noted thematic areas and outcomes of governance.

### **5.3.2 Methodology for proposing strategic priority areas and key interventions**

As explained above, all recommendations and suggestions made by key informants are integrated with findings from phase one of the study and these inform the strategic interventions suggested by the researcher. All the interventions outlined below drawn from the findings made in the second phase. The researcher asked key informants to suggest their recommendations on how to improve leadership effectiveness. Leadership effectiveness was viewed from the perspective of improving health worker satisfaction and empowerment, patient safety and quality of health care. The researcher established the strategic priority areas and key interventions after extensively categorising the initial codes created from key informants, reducing the codes in to themes, and finally stipulating the strategic priority areas and key strategic interventions. It should be noted that these strategic priority areas and interventions are aligned with the five year Health Sector Transformation Plan's strategic objectives and activities (Ministry of Health 2015b:84-97).

### **5.3.3: Strategic priority area one: Enhance empowering and enabling the workforce environment**

#### **5.3.3.1 Description**

The main purpose of this strategic priority area is to create an environment in which a health worker engages in easily and is satisfied. This intervention assists a health worker to

enhance his/her satisfaction and empowerment. Such a work force environment recognises the contribution and is responsive to the concerns of individual health worker. The environment, which is a supportive and fulfilling environment, also provides necessary resources to care for patients. Finally, this environment also gives due emphasis on health workers' financial and personal concerns because these affect their job satisfaction and empowerment significantly.

### **5.3.3.2 Outcomes**

Create motivated, retained, engaged and productive health workforce who will work towards the realisation of quality care in Ethiopia, and hence, improved the health status of the society.

This strategic priority area will be implemented by regional health bureau and hospital senior management.

### **5.3.3.3 Key interventions**

- Making the health care environment friendly, attractive and fulfilling: the health care environment must make health workers at ease and friendly. As they expend most of their life time, it should be designed in a way that enables health workers to get rest and work in a friendly way. The health workers need to have a comfortable cafeteria, staff room, and, in the case of senior health workers and department heads, offer adequate and suitable offices.
- Provide adequate resources (supplies, medical equipment, drugs etc) which enable health workers to function well and leave them fulfilled: a majority are dissatisfied y due to lack of adequate medical supplies and equipment. Therefore, urgent attention must be given to provide these supplies and equipment. In addition, a system that forecasts the necessary input must be established in order to improve efficiency.
- Establish performance-based recognition and remuneration for each individual health worker: the system should differentiate those who work hard from those who are reckless and underperforming. Based on their performance, health workers should be recognised, incentivised and get promotion. The current system of performance is nominal and, as such, a performance-based recognition and remuneration should be carried out in transparent and accountable ways.
- Compressive incentive package: it could be both economical and non-economical. Health workers should get adequate salaries for their effort and these should cover their life expense including: shelter, clothes, food, transport, and family expenses

such as children school fees. In addition, the health workers must access long term education based on their performance. The provision of adequate long-term education indirectly reduces health workers' life expense as most (especially young) professionals cover their education expense personally since they do not get adequate educational access from government. As part of comprehensive incentive packages, hospitals should also arrange a leisure time for health workers. This will promote togetherness and lessen burnout. A further suggested incentive relates to a fair and transparent provision of government guarantees and credit facilities for the purchase of properties such as houses and cars. Access to government guarantees and credit facilities motivates and assists in retaining health works on their position.

- Open and candid communication: leadership should establish open and candid communication with health workers to improve the workers' satisfaction and empowerment. Being realistic about what can and cannot be done and what is and is not is part of candid communication. Concerns raised by health workers should be answered urgently and in a transparent and accountable way. The open and candid communication should also take into account leadership's capacity, as this helps to avert high expectations within health workers.

#### **5.3.4 Strategic priority area two: Enhance transparent accountable and effective hospital governance and leadership**

##### **5.3.4.1 Description**

This priority area is meant to affect all other variables in this study: job satisfaction, health worker empowerment, patient safety and quality of care. This strategic priority area contains principles of good governance explained in section two of this strategy document: transparency and accountability are the sub-functions of governance. Leadership and governance could be interchangeably used and the researcher's articulation of strategies seeking to improve the effectiveness of hospital leaders and managers aimed at the general hospital governance and leadership: the over-all decision-making process and context in which this decision making occurs. Thus, the researcher outlines the over-all context in which the decision-making process will occur. This section discusses: "rule of law, transparency, inclusiveness and equity, responsiveness, efficiency and effectiveness and participatory engagement of citizens".

### **5.3.4.2 Outcomes**

A new and reinvigorated hospital leadership with outcome features of transparency, accountability, and empowerment. Ultimately, the hospital will have an efficient and effective health system that has the potential to deliver high quality care and improve the health of patients.

This strategy priority area will be implemented at multiple levels: at hospital, regional health bureau, and ministry of health.

### **5.3.4.3 Key interventions**

1. Revisit policies, regulations, proclamations and procedures governing hospital functions: it is explained in detail as a separate strategic priority area, even if it is part of hospital governance (please see below).
2. Foster transparency on hospital leader's recruitment, placement and promotion: this will help to attract competent people to the position and encourage competition. Professionals must have a say in the recruitment system. One way of doing this is that the prospective leaders must present their intentions, vision and missions for the larger hospital community; then the community should vote for candidates of their interest.
3. Foster competency-based leadership: as hospitals are complex and need specialised knowledge, just as hospital leaders should be recruited based on relevant knowledge. Profound and subject matter knowledge on leadership is necessary. Subject matter knowledge comprises of: medical, business, finance, and management knowledge while profound knowledge consists of system thinking and knowledge on data, human psychology and behaviour.
4. Rejuvenate system of "management by objective" (mission driven leadership): management by objective, coined by Peter Druker in 1954, is "a process whereby the employees and the superiors come together to identify common goals, the employees set their goals to be achieved, the standards to be taken as the criteria for measurement of their performance and contribution and deciding the course of action to be followed." The main intention behind management by objective is to make sure that missions, aims and objectives will be understood and owned by both leaders and employees; as well as creating awareness of employees' roles and responsibilities regarding fulfilment of the organisation's mission (Ofojebe and Wenceslaus 2014:3). Management by objective will help to curb lack of

empowerment within health workers by encouraging participatory leadership throughout the hospital. Its only disadvantage is its time intensiveness. The MBO processes are:

- a. Define organisational goals
- b. Define employees' objectives
- c. Continuous monitoring of employee's performance and progress
- d. Performance evaluation/reviews
- e. Providing feedback
- f. Performance appraisals

This management by objective (MBO) system in a hospital seeks to spur managers and empowered employees to implement and achieve their organisational mission and vision. The current system of planning must be carefully examined, and aligned with the principles of management by objective.

5. Design an attractive incentive package for leadership positions, as the current ones are not adequate: In order to attract capable people to the position; curb corruption and minimise high turnover of leaders. The package should be fair and just for all senior, middle and lower level management positions.
6. Create a strong and vibrant hospital board: the current hospital board is inefficient and ineffective; in fact, it hampers the mission of hospitals. Board composition must be from different background and very limited (not more than 9 people); avoid those busy higher government officials from the board. Adding people having finance and business skill will help a lot for hospital boards. Making hospital boards effective will help hospitals to achieve their mission.
7. Performance based financing at hospital levels: hospitals should get enough budgets to function well. At the same time a lot of resources are inefficiently squandered in those hospitals. Therefore, performance-based financing at institution, department and individual level must be implemented and these should be accompanied by an existing supportive legal framework and systems. This will help to ensure accountable leadership in hospitals: a recommendation by all key informants.
8. Leadership and succession planning with coaching: one of the functions of the incumbent leadership must be to prepare a prospective leader. A shadow leader, under the incumbent, should be continuously coached so that continuity of leadership and management will be in place. In addition, a uniform and consistent management

policy manual is another intervention suggested by key informants to ensure continuity leadership functions.

9. Re-brand engagement frameworks: one of the functions of good governance is engagement of the public and health workers, as stipulated in the health sector plan. Different engagement mechanisms have and should continue to be implemented. These include public forums meant to engage the larger public (citizen) and different engagement frameworks for health workers in hospitals (one to five network, case team, directorate forum etc). Currently, such frameworks are perceived as political tools, rather than seeking to improve health care, and are mostly dysfunctional. Hospitals need to make sure that these frameworks are real, far from politics, and show the constituents that the primary purpose of these frameworks is to improve quality of care. Hence, these frameworks need to be re-examined and find a way to improve their effectiveness: rebrand these engagement frameworks.
10. Foster authentic leadership (a major theme emerging from the study) underscoring that hospital leaders should be realistic, transparent and ethical. They must and plan, communicate and perform based on the resources and capacity they have. Health workers and people expect more because leaders make claims and targets without considering the real context, which is catastrophic to the system. Practicing authentic leadership and leadership based on leader's ethical behaviour is recommended in hospitals. These leaders have the following characteristics: transparency, consistency, integrity, listening, motivational and visionary skills (Covelli, Francis, Mason and Iyana 2017:1-10; Mulder, 2018).
11. Establish leadership incubation centre: this is suggested in the health sector transformation plan. The centre is generally a knowledge translation unit as well as conduct research and make recommendations on leadership and governance in hospitals and other public health institutions. This centre is enlisted as one of the key interventions to improve leadership and governance for hospital leaders. This incubation centre may facilitate dissemination of best practice, support coaching of incumbent and shadow leaders, and facilitate experience sharing between local and international hospitals.
12. Rethinking new governance and structure for university hospitals: a serious governance problem exists in university hospitals, for they are accountable and reporting to both ministry of education and ministry of health. This situation hurts health services provided by these hospitals and they do not get adequate budget for

the provision of hospital services to the public: currently the Ministry of Education allocates budget for these hospitals. These university hospitals have triple missions: health service, education and research. Making health service an anchoring point for the other two missions is mandatory and their governance and structure must be reimagined based on evidence generated by a panel of experts/researchers.

### **5.3.5 Strategic priority area three: Reinvigorate health science education and continuing professional development**

#### **5.3.5.1 Description**

Health science education encompasses medical, nursing, health officers, pharmacy, laboratory, physiotherapy and midwifery learning, which produces health professionals for hospital services. These professionals include medical doctors, nurses, laboratory professionals, health officers, midwives, anaesthesiologists, mental health, and physiotherapists. It encompasses both basic and post graduate health science educations. All key informants underlined that having quality health science education is the prerequisite for a competent, productive and motivated health workforce. Giving due emphasis for health science education is the starting point for quality health care. Thus, it is necessary to make health science education stronger, inclusive and contextualised to the country situation, and able to produce health professionals who could lead health systems professionally and competently. Ultimately a highly competent and professional health worker will have an improved job satisfaction, become empowered and provide health services that is safe and of high quality.

Another area of education is continuing professional development (lifelong learning). It includes learning activities such as: in-service trainings, workshop, research publication and reviewing, lecturing as a guest, online educational activities, attending and conducting seminars, grand rounds, management sessions, conducting quality audits and quality improvement projects. These activities must be done after long term education by professionals on practice. Continuing professional development directive was enacted on 2013, and re-enacted in 2018; but it is not yet enforced. The directive stated a that total of 150 Credit Earning Points must be accumulated by a health worker before claiming his/her license renewal (Ministry of Health 2018a:1-15). The purpose of CPD is to empower through improved knowledge, skill and attitude of professionals on practice, and hence, enhance safety, quality of care and job satisfaction.

### **5.3.5.2 Outcome**

Having a health professional whose competencies are built. These state-of-the-art competencies will enable the health professional to be empowered and satisfied and yield the provision of quality and safe health service. The health worker will have a leadership competency with profound and subject matter knowledge.

### **5.3.5.3 Key interventions**

1. Rethinking health science student's recruitment system: all students who are going to join health science must be recruited based on both their high school scores and other criteria that determine students' readiness to provide service, compassion and understanding of the context. Those who love to serve are most likely to be compassionate respectful and caring.
2. Revamp medical education and other health science education program: the health science education curriculum must be revamped to align it with the country's contexts, make it skill based (increase students' exposure to practice), control the number of students accepted into programs, and have a continuing capacity enhancement program for tutors. In addition, health science colleges and medical schools should be well equipped with necessary resources to enable students to the requisite skills, knowledge and attitude.
3. Balanced focus for subject matter and profound knowledge: current health science colleges only focus on subject matter knowledge in biomedical and clinical areas. All health science colleges must develop students into the future leaders of the health sector. This must start from revisiting the education curriculum and providing a balanced focus to develop both subject matter knowledge and profound knowledge.
4. Disentangle the current organisational culture of health science colleges: mould cultures of health science colleges to script behaviour of the new prospective health workers into a behaviour that seeks to provide compassionate and respectful care. An organisational culture is "a wide range of social phenomena, including on organization's customary dress, language, behaviour, beliefs, values, assumptions, symbols of status and authority, myths, ceremonies and rituals, and modes of deference and subversion; all of which help to define an organization's character and norms"(Palmieri, Peterson, Pesta, Flit and Saettone 2015:101). Therefore, disentangling those bad organisational cultures which cultivate those untoward behaviour, attitude and practice must be addressed.

5. Hospital leadership education program: The Master of Hospital Administration (MHA) program should be free from political influence and equip leaders of hospitals with state-of-the-art knowledge, skill and attitude. In addition, the MHA program must be expanded to various colleges so that every leader can study hospital management skills.
6. Start the implementation of continuing professional development: continuing professional development must be need based (at individual and organisational level); its effectiveness must be continuously monitored and evaluated and it should be competency based. Currently, in-service trainings (one component of CPD) do not fulfil these criteria. As a country we are unaware of the amounts invested on in-service trainings and their impact on service quality. A proper implementation of continuing professional development will equip health workers with updated knowledge, skills and attitude.
7. Initiate onsite, medium to short term, special leadership training and coaching programs: this program may help the current hospital leaders to continuously learn, be coached and revive their performance. A properly planned training programs may rectify the current profound knowledge gap of hospital leaders. The new leadership incubation centre may also help to implement this initiative. However, this must be carefully planned, needs identified, and competences formulated to enable the training to facilitate the coaching.

#### **5.3.6 Strategic priority area four: Enhance just organisational culture and people centred care to promote patient safety and quality**

##### **5.3.6.1 Description**

Traditionally, health care organisations hold their employees accountable for medical error sustained on patients. The easiest way of rectifying errors is to make individuals accountable and punish them. But the bad news is that, most of the time, errors happen due to system limitations (in fact individuals are the collective outputs of that system). Removing individuals without rectifying the system does not help the mishaps and as such the errors are likely to occur again. A just culture recognises that individuals should not be accountable for errors due to system failure, it acknowledges that even competent professionals can make medical error, and that errors and mishaps are likely to occur during human and system interactions. At the same time, the culture should have a zero tolerance for individual's reckless behaviour. A just culture encourages an open and honest reporting environment, and an

organisation that has a culture of continuous learning with ultimate objectives to improve patient safety and quality. It embraces balanced accountability between system and individuals. Finally, a just culture emphasises system design and management of the behavioural choices of all employees; rather than on errors and outcomes (Boysen 2013:400-406).

An integrated people centred health services framework was enacted in 2016 by the 69<sup>th</sup> World Health Assembly. One of the strategies suggested, among the five, was empowering and engaging people and communities (World health organization, 2016c:1-12). Thus, patient and family centred care must be practiced in order to have better quality of care. For that, patients and their families must be at the centre of hospital performances: plans must be people centred, experience of care must be measured, etc. Ultimately, quality must be perceived from the perspective of patients' experience of care to ensure quality of care.

The researcher treats patient safety as one dimension of quality of care as stipulated in Institute of medicine quality definition (Ministry of Health 2018b:16). Therefore, both concepts are fused together as one strategic priority area. In addition, interventions suggested to improve patient safety will help to improve the general quality of care.

#### **5.3.6.2 Outcome**

Creating a health system that consists of a just culture, prioritising quality and safety, providing a people centred care and being ready to ensure patient safety and high quality of care is the outcome of this strategic priority area.

Hospitals, regional health bureaus, ministry of health and other regulatory organisations take part in cascading the following key interventions.

#### **5.3.6.3 Key intervention**

1. Patient safety and quality of care must be a priority: the motto "do not harm, benefit only" is a saying of antiquity ever since medicine has been practiced from the time of Hippocrates. The health system's first motto must be safety, rather than rationing health services at the expense of the former. Ethiopia has done a lot on improving access to health care; but this must not be at the expense of safety and quality. Ardent and rigorous standard regulation, the provision of adequate resources towards care, and continuous quality check must be implemented to ensure quality and safety.
2. Strong quality and safety structures embedded in the existing health care system: recently, there has been a move to establish quality structures starting from the

Ministry of Health, regional health bureau, woredas and institutions. This system must be strengthened with the necessary human resource, policies, strategies and procedures. The system must be rigorous and include a monitoring and evaluation system. One of the major focus areas for that structure must be safety: without safety, it is not possible to realise quality, “first do not harm” must always be the motto of health care here.

3. Data driven decision making must always be upheld: quality and safety without data nor decision making is unthinkable. Data and feedback systems were given due emphasis among the four strategic priority areas of the national quality strategy. One of the four transformation agendas of the health sector transformation plan is information revolution. However, there is a need to change our culture of data use and making sure that data is generated and used at a heightened level. Real time data is very critical to improving patient safety and quality, hence, strong quality structures must exist at hospitals.
4. Regulations must be enforced consistently and at all times: improve quality and safety on private facilities; public hospitals must be monitored using EFMHACA facility standards. Failure by the ministry to apply and enforce the standards fairly amounts to a double standard and likely to harm those coming to public hospitals. Other regulations which help to improve safety and quality are: license renewal and continuing professional development. Those working in public hospitals do not regularly renew their licenses unlike those in private hospitals. In addition, continuing professional development regulation is not yet on effect; if well implemented, it will help to update necessary competencies of professionals. The field of health care is very dynamic and ever changing, hence, providing professionals with continuing professional development will improve both the health workers’ skills and the patients’ quality of care.
5. System thinking and system engineering: as human error happens due to system failure, promoting the principle of just culture (and one of the interventions of just culture is system engineering) is the current thinking seeking to promote patient safety, and ultimately improve quality of care. The culture of blaming others must be avoided while reckless professionals must be accountable, because it is totally unacceptable and has legal consequences.
6. Design learning and accountable organisation: one of the principles of a just culture is balanced accountability. The existence of an accountable and learning

organisation will work towards patient safety and quality by creating a just organisational culture. In addition, an accountable and learning organisation will be responsive to the concerns of individual workers and take immediate actions, which are the necessary steps to improving safety and quality of care.

7. Put in place a system of continuous standardisation: the standardisation of services and procedures must be done continuously to improve the efficiency, accountability and effectiveness of health care. Standardisation includes: what necessary steps each procedure will take, what resources it needs, who will do that and the approximate time the procedure or service will take. There must be a continuous updating of patient treatment protocols and guidelines as part of standardization. As the work of preparing protocols and treatment guidelines is very intensive, this must be delegated to other parties such as professional associations or by establishing a dedicated body whose work would be to prepare and update protocols and guidelines.
8. Define scope of work and put it in practice immediately: one serious problem in health care is lack of a professional scope of work, consequently, anybody can do whatever he/she desires without his/her educational scope. This seriously hampers quality and safety in health care. Therefore, practicing health care with a known scope of work is mandatory and should be in practice urgently.
9. Team-based care and inter-professional communication: in public hospitals, team-based care and inter-professional communication is seriously damaged, as the researcher learned from key informants. Therefore, a redesigning of the system in order to facilitate team-based care and inter-professional communication must be thought of. In addition, short term trainings are helpful and likely to improve communication skills (communication with other colleagues and patients).
10. Strengthen tailored, need-based, and competency-based capacity building programs on quality and safety: there is a severe knowledge and skill gaps on patient safety and quality of care. Therefore, there is need for an emphasis on competency and need-based capacity building programs.
11. Revive learning collaborations among hospitals (both public and private hospitals): learning collaborations will help if their objectives for learning are very limited, achievable, and well supported. Care must be taken to define learning concretely, make it simple, and have a tool which supports learning.

12. Quality and safety appraisal and recognition system: a quality and safety appraisal system linked with recognition of those high performing hospitals should be established or reinvigorated at the country level. This kind of initiative will help to heighten people's awareness and elevate the agenda at the national level. But care must be taken regarding the measurement system. The appraisal system must work in a transparent way and measure quality and safety in an objective and verifiable way. It is good to focus on outcome measurement, rather than focusing on inputs.
13. Increase society's health literacy: a way must be created to engage societies and increase their literacy. The establishment of a two-way communication between patients and health workers is most likely to increase their literacy. It is a patient that has concerns for his/her health than health professionals, thus, patients have the right to know and understand their problems and this can be achieved by engaging in two-way communication. Health workers do not communicate with patients well with the majority failing not ask patients their exact problems. This "I know for you better than you do" mentality must be changed. The ultimate responsibility of health workers is to help patients understand their problem and engage in the management of their health problems. The previous health care model should leave the place for a person-centred health care model: patients will be at the driving seat in the production of their health (Sillars 2015:1). In fact, health goes beyond a person centred care; currently, the collaborative care model is in practice because determinants of diseases are multifactorial in nature, social, behavioural, spiritual and biomedical (Ivbijaro, Enum, Khan, Lam and Gabzdyl 2014:1-12). Hence, the society, using frameworks discussed above, could be engaged and co-produce their health.
14. Long term education on quality and safety (second and third degree): long term education in quality and safety (especially in second and third degree) will broaden system literacy and the health system will get experts who will work on it. It is better to give attention and broaden access to education.

### **5.3.7 Strategic priority area five: Rethinking health care financing role in quality of care**

#### **5.3.7.1 Description**

As previously explained, health care financing is a system that generates and utilises funds to create universal access to health care. Currently health care is inaccessible and marked by a huge inequity and out of pocket expenditure is the major source of health care financing

(Ali 2014: 37-40). The Ministry of Health enacted health care finance reform, whose major objective is to improve access to health care. The researcher understood from the second phase of study that health care is in serious jeopardy due to underfunding. The major driver for health worker dissatisfaction and leadership apathy stems from lack of input resources due to this underfunding. Health care insurance, currently at the pilot phase, is believed to improve both access to and the quality of care as well: it will help to enforce standards of care and guideline compliance.

#### **5.3.7.2 Outcome**

A well-funded health care with improved efficiency is the outcome of this strategic priority area.

The main implementer of this priority area is the health insurance agency and health institutions.

#### **5.3.7.3 Key intervention**

1. Government must fund health care adequately: this is the key driver to ensure quality of care and as such there is need to increase its current allocation of 6.65% of the total budget to 15% in accordance with the Abuja declaration.
2. Health insurance must link institutions' finance reimbursement with the care given according to the prescribed protocols or standard: recently, compliance of care to guidelines is very low and as such, the health insurance agency needs to make sure that care is given according to the prescribed guidelines.
3. Efficiency of care must be rewarded by the health insurance agency: if care given according to the prescribed guidelines and in an efficient way, the particular health institution must be rewarded and experience must be shared to others.
4. The standardisation of inputs must be encouraged, recognised and rewarded by the insurance agency: this will improve the efficiency of care without compromising effectiveness.

### **5.3.8 Strategic priority area six: Foster use of technology and innovation to improve service quality**

#### **5.3.8.1 Description**

Technology and innovation will hasten business processes or invent new ways of doing things. Ultimately, technology and innovation will improve quality and operational efficiency and create empowerment and transparency.

### **5.3.8.2 Outcome**

This will enable the generation, utilisation and sharing of data and improve hospital service quality. In addition, innovations generated from this will improve efficiency, effectiveness, transparency and outcome of care.

### **5.3.8.3 Key interventions**

1. Establish information technology networks in hospitals: this will enable the flow of daily briefings and messages from leadership, assist in making calls for meetings with middle and lower level leaders etc. One of the current problems in hospitals is that there is communication gap and this can be rectified using information technology networks in a hospital. The other important thing is that it will create transparency between health workers and patients. For instance, video conference technology will help in the sharing of knowledge between hospitals, if appropriately utilised. Generally, the technology will facilitate business communication, continuing professional development, and the sharing of messages from leadership.
2. Strengthen the use of electronic medical records and IT-based supply and demand forecasting of drugs and medical supplies.
3. Encourage innovations: hospitals should be encouraged to make innovative means of generating funds and ways of doing business that improve efficiency. The innovative ways must be evaluated before implementation. The environment must be conducive for the desired creativity with hospitals, regional health bureaus and the Ministry of Health being facilitative rather than barring the innovations.
4. Generate evidence and uses through research on available patient data, quality improvement projects, and quality audit to improve health services: this will improve service quality, utilisation and patient experience of quality of care.

## **5.3.9 Strategic priority area seven: Revitalise the role of private health sector**

### **5.3.9.1 Description**

The private health sector here means all private health institutions whose primary purpose is to provide health care: diagnostics, outpatient and inpatient care, prevention and promotion. These include both profit and non-profit health institutions. The private sector can play a larger role, if government focuses on key enablers and challenges faced by this sector and act accordingly.

### **5.3.9.2 Outcomes**

A strong and vibrant private health sector that is harmonised as one health system with public health system is the outcome of this strategic priority area.

### **5.3.9.3 Key interventions**

1. The first focus is on eliminating the double standards that the private health institutions are complaining about.
2. Consider private health institutions as part of one system with public hospitals: they can be viewed and embraced as one health system in which a patient could navigate. Further negotiation and resource harmonisation could be made and private health facilities made to provide advanced services. Government could include them in the new health insurance that the country intends to start. A harmonisation of both the public and private hospitals will create an accountable and highly efficient health system.
3. Public private partnership: private health institutions could be engaged with under the new modality called public private partnership. A certain type of services could be outsourced with controlled negotiations, and efficiency and effectiveness could be imparted and maximised. Private health institutions are by far more efficient and public hospitals could benefit from that leading to an improvement of continuity of care and quality and responsiveness.
4. Create a conducive environment for private health sectors: government must see private institutions as a partner, rather than as a competitor. They should be seen as part of one system. In addition, the government must create an enabling and comfortable environment in which private health sectors could function, survive and thrive.
5. Immediately annul the previous health institution standards enacted by the Ethiopia Food Medicine Health Care Administration and Control Authority (EFMHACA) after consultation with private health sectors and replace it with new health institution standards.
6. Grant access to reforms, short term trainings and other initiatives to private health institutions.
7. Create access to long term education for private health practitioners: one area of grievance for the private health sector is the limited access to long term education suffered by their professionals. The private health sector should have an arrangement

that enables it to get access to long term education if we consider the sector as one and harmonised health system.

### **5.3.10 Strategic priority area eight: Revisit policies, regulations, laws and procedures governing hospital functions**

#### **5.3.10.1 Description**

These policies, regulations, laws and procedures are meant to establish legal frameworks that will facilitate and run the day to day functions of hospitals. They are enacted by different government bodies: policy and law (proclamation) by parliament, regulations by council of ministers and directives by ministry of health, where procedures could be enacted by the Ministry of Health and hospitals. The current hospital system is in jeopardy because these legal frameworks are not adequate, create a red tape, or the capacity of these hospitals is low in implementing and understandings these laws. The researcher inferred that these legal frameworks are creating obstacles rather than making the system transparent, accountable and efficient.

#### **5.3.10.2 Outcome**

The outcome of this strategy priority area is to create a legal context that will hasten the day to day activities of hospitals.

Implementers of this strategic area are diverse: starting from Parliament to hospitals.

#### **5.3.10.3 Key interventions**

1. Procurement and labour law: these laws, which have been used by hospitals are the same laws applicable to the whole public service organisations, create excessive organisational red tape and are not adaptable to almost all the time emergency nature of hospital functions. Specifically, procurement laws are creating challenges instead of hastening transparency and accountability in the public service procurement process. Labour law is undermining the hospital leader's empowerment because a hospital leader cannot take immediate actions on public servants if that person fails to execute tasks given to them as public servants. The law gives excessive tolerance for mistakes made and this can result in lives being lost due to those mistakes. Therefore, procurement and labour law should be customised to hospital functions with different procurement and labour policies crafted for these hospitals.
2. Design Policies that foster Performance based financing: if the Ministry of Health wants to implement performance-based financing at institution and individual level,

all those laws and policies which hamper performance-based financing must be removed and new laws and policies be promulgated.

3. Design policies and laws that promote innovation: the existence of various hospital challenges, and meagre resources demands that the establishment of policies promoting innovation in order to tackle the challenges faced by hospitals. Innovation, such as the private wing, is needed in the future to engage, motivate and improve efficiency of hospital functions.
4. Design hospital management policies which promote balanced empowerment and the decentralisation of power at multiple levels of organisation: one of the problems of federal hospitals (especially university hospitals) is that power is concentrated with the top leadership (even in the case of university hospitals, power is in the hands of university presidents). There should be decentralisation of power and responsibility at multiple level of leadership: at the top, middle and lower hierarchy to empower leaders. This hospital management policy must dictate who will do what, what will be done, and where it will be done. It must be prescriptive regarding: finance, human resource, supplies, equipment and on relations with outside organisations and thus promote balanced empowerment.

#### **5.4 PROPOSED IMPLEMENTATION OF IDENTIFIED KEY INTERVENTIONS**

The next Ethiopian fiscal year, 2012EC, starts from July 7, 2019. The following year will be appropriate for the preparation of the new health sector transformation plan, the second health sector transformation plan will start on July 7, 2020. The researcher will be at an advantageous position to sell these proposed strategic interventions so that they can be included in the coming five-year health sector transformation plan II.

In addition, Ethiopia is at a transition time with health workers demanding change in hospitals. Health workers are demanding that government must allocate necessary resources to improve quality of care, and change the health workers' working environment and quality of life. Therefore, this research findings and proposed strategies will have utmost influence on hospital service delivery. Some recommendations are already taken by government in the already started negotiation between health workers and the Ministry of Health. The researcher will share this document with the Ministry of Health, the Addis Ababa Regional Health Bureau, and hospitals from which the researcher collected his data. In addition, the research findings will be shared with professional associations, abstracts will be presented at annual scientific conferences and publications made in professional

associations' scientific bulletins. The Ministry of Health's directorates (departments) have their own bulletin, and some of the findings will be published there to reach out to various professionals and policy makers.

An acceptance of this study's findings by the Ministry of Health and inclusion in the new health sector transformation plan, will render this study a success. Furthermore, the researcher will communicate and work with any concerned body (especially public and private hospitals) seeking to implement those key strategic interventions.

## **5.5 IMPACT EVALUATION**

Each strategic priority area is suggested with the possible outcomes to enable monitoring and evaluation of the interventions. The researcher will prepare a detailed monitoring evaluation plan and grant to the Ministry of Health, regional health bureaus and hospitals whether the expected outcome is really achieved or not.

## **5.6 CONCLUSION**

This chapter outlines the detailed blue print on how the researcher went through the preparation of this strategic document. The chapter also summarises the first phase of the study, and expanded and deepened those findings in the second phase. It also considered the current situations and challenges in the previous sections and articulated the recommendations given by these 11-key informants into 8 strategic priority areas and key interventions: with the description of each strategic priority area and outcome that is expected after the implementation of the suggested key intervention.

## **CHAPTER 6**

### **DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 INTRODUCTION**

This chapter discusses the thesis' findings in view of the study's theoretical framework. It also compares the findings with previous studies, current policies and strategies. The discussion, particularly based on the findings from the second phase of the study, is followed by an outline of the study's conclusion and recommendations. Finally, the researcher highlights the limitation of this study briefly.

The purpose of this study was to explore and propose strategies to improve the effectiveness of hospital leadership in order to enhance quality of health care provided in hospitals through improving health workers' empowerment, job satisfaction and patient safety culture. The researcher explored hospital leadership styles, job satisfaction and empowerment, patient safety culture and patient experience of quality of care. He also tested a model on job satisfaction, empowerment, and patient safety. In chapter five, the researcher broadened the findings of the first phase, using qualitative methodology and detail contextual analysis, and finally suggested strategic priority areas along with key interventions to improve the current hospital problems regarding the above-mentioned variables.

#### **6.2 RESEARCH DESIGN AND METHODS**

The study employed the sequential explanatory mixed method research design. It had three phases. The first phase was a descriptive correlational study, while the second phase was qualitative and consisted of a content analysis, and the third phase focused on a strategic formulation.

The nature and significance of each phase needs further explanation. The first phase of the study was quantitative and specifically descriptive and correlational. Data was collected using structured questionnaires from hospital leaders, health workers and patients. Data quality assurance was made as per the protocol. Data were entered to EPI info version 7.2.2, transferred to SPSS version 25 for analysis, cleaned and made ready for analysis. Descriptive, bivariate and multivariate analysis was carried out to answer all specific objectives and a model created using the SPSS AMOS software version 25.

The second phase was qualitative in nature. It specifically involved content analysis. Key informant interviews were made, data was transcribed, translated, and entered to Atlas.ti version 8.4.15, coded, thematic analysis were made.

The third phase of the study sought to prepare strategic documents on hospital leader's effectiveness improvement. It identified key challenges, strategic priority areas and key interventions, and stipulated, in the strategy documents, how to improve hospital leader's effectiveness.

### **6.3 SUMMARY AND INTERPRETAION OF THE RESARCH FINDINGS**

This section presents the interpreted and compared findings of the study based on the specific objectives articulated in the results section of this study.

#### **6.3.1 Socio demographic variables**

Both health worker and patient response rates were commendable: 542 (86%) and 532 (82%) respectively. The individual hospital response rate for health workers varied from 61% to 120% while the patients' response was from 43% to 110%. This variation occurred as a result of variation of hospital leadership's positive cooperation in facilitating data collection. The response rate for the leadership questionnaire was also commendable: 75 (86%). All in all the response rate is acceptable at hospital levels (Morton, Robinson and Carr 2012:106-108).

Three out of ten and four out of ten, both in public and private hospitals, respectively, were surgical cases. This is expected because most of the time people visit tertiary care for surgical problems with other cases having been managed at the lower level.

The health workers, from both the public and private hospitals, included in the study were predominantly females, with almost six out of 10 in public and private hospitals. This is because a majority of health worker respondents were nurses from both hospital sectors and nurse profession tends to be a profession of females. Nonetheless, the other demographic observation is that more than 8 out of 10 in public and six out of 10 in private hospitals' respondent were younger than 40 years of age. This has its own pros and cons as younger health workers may lack of experience and thus, lead to the lowering of quality at the hospitals. At the same time, the contexts in health service provision have a lot of gaps and constantly demand the adoption of new ways of doing things, young professionals easily amenable to change and embracing new technologies, policies and procedures. Finally, the

major observation is that almost half of the health workers, from both the public and private hospitals, 45.9.6 % and 51.9 %, respectively, had experience of not more than five years.

Existing research notes that the health workers' work overload is one of the driving factors for poor patient safety ). Nonetheless, the study observation was that nine out of 10 health workers worked less than 39 hours/week, which is a commendable work load to promote patient safety and quality as a more than 40 hours work/week increases risks of care error by 40% (Hours 2015:16-25). The Ethiopian health sector context may not be affected by overburden, and yet there are concerns over common cases of inefficient health care; as the researcher observed from the qualitative part of this study that inefficiency in hospitals is common.

### **6.3.2 Leadership style of public and private hospital leaders in Addis Ababa**

A multifactor leadership questionnaire, which has two kinds of items, the leaders and follower form, on which the leaders fill their and self-identify their leadership style, while the followers of leaders assess their immediate leaders' leadership style in the follower form. The researcher preferred the leader form owing to the fear that health workers might not be cooperative as the health worker questionnaire would be bulkier: the health worker questionnaire comprised of job satisfaction, structural and psychological empowerment and patient safety culture and amounted to 12 pages. Therefore, the researcher distributed 88 leaders form for hospital top and middle managers who were part of the management group, to self-assess their leadership styles. Seventy-five leaders (30 from public and 45 from private hospitals) returned the completed questionnaires and this amounted to 86% return rate.

The overall observation is that, hospital leaders considered themselves more transformational (M=2.98, SD=0.41) than transactional (M=2.85, SD=0.46). Their score on passive leadership was low (M=1.43, SD=0.87) compared to the transformational and transactional leadership score. However, the style differences were not statistically significant. This trend is common in existing studies as noted in a study conducted at Jimma University, Ethiopia, which showed that nurse managers perceived themselves as more transformational with this perception followed by transactional and lassis-faire (Nebiat and Demissie 2013:54). A further study conducted in Nigeria has the same trend as this study (Olu-abiodun and Abiodun 2017:22-27).

The study also measured the perceived outcomes of leadership between public and private

hospitals. The measurement determined whether leaders were satisfied, effective or imparting extra effort. Accordingly, leaders from private hospitals perceived themselves as more satisfied, effective and imparting more extra effort than their public counterparts (3.28 vs. 3.15; 3.15 vs. 2.99; 3.1 vs. 3.01, respectively). Nonetheless, the differences were not statistically significant.

Generally, there is no difference between the leadership style and outcome at both public and private hospitals. This could be due to environments and contexts that are more or less similar or the fact that similar people work in private and public hospitals, especially senior health workers. In fact, most of private hospitals are opened by people who used to work in public hospitals and cultivate almost similar private hospital environments as public hospitals. In addition, while private hospitals have a competitive advantage, their sizes are manageable (small to medium), they pay better salaries for their health workers, and benefit from the competitive atmosphere existing in the private environment. The study noted that the major source of leaders for private hospitals are public hospitals. In addition, while private hospitals are slightly better on performance across the board, the study observed that public and private hospitals have the same challenges, as inferred from qualitative part of this study.

Furthermore, a positive and moderate correlation existed between transactional and transformational leadership ( $r=0.583$ ,  $P<0.01$ ). Transactional leadership had significant ( $p<0.01$ ) and moderate correlation with the three leadership outcomes: extra effort, effectiveness and satisfaction ( $r=0.453$ ,  $0.452$  and  $0.376$  respectively). Transformational leadership had a stronger relationship with these leadership outcomes ( $p\text{-value}<0.01$ ) with a Pearson correlation coefficient ( $r$ ) =  $0.571$ ,  $0.488$  and  $0.407$ , respectively. This finding is in agreement with other study. A study carried out in Pakistan shows that both transformational and transactional leadership had a direct and positive correlation with leadership outcomes (Khan, Bukhari and Channar 2016:2-7).

### **6.3.3 Health worker job satisfaction in the public and private hospitals of Addis Ababa**

It can be generally inferred from this research that private hospital health workers have better job satisfaction compared to their public counterparts. The analysis shows that the relationship with management stood at 2.76 vs. 2.56 with job content at 3.15 vs. 2.47, and the relationship with co-worker at 3.28 vs. 3.04. The two general job satisfaction scales were also high for private hospitals' health workers than the case with their public counterparts and noted statistical significance. Interestingly, the rating of hospitals on the scale of 10 (the

fifth variable in this study) is reported and it shows that health workers' in private hospitals scored 70.8% on job satisfaction, while public hospital health workers scored 57.1 %. Private hospital health workers also had a statistically significant difference on all the five job satisfaction measurements considered in this study ( $P$ -value $<0.001$ ). Multiple studies in Ethiopia showed that a general health workers' satisfaction in public hospitals was comparable to this study (Deriba, Sinke, Ereso and Badacho 2017:2-7; Ethiopia Strengthening Human Resources for Health Project 2015:30). The job satisfaction of health workers in hospitals, noted in the above studies, were 41.6% and 51.3 %, respectively. However, the availability of data on health workers' job satisfaction in Ethiopia's private hospitals is limited. But, comparable health worker satisfaction was observed in a study carried out at Jimma Hospital, a public university hospital; It showed that the job satisfaction of university hospitals workers was 77% ( Assefa, Mosse and Hailemichael 2011:101-109).

This low job satisfaction among public sector health workers is reflected in their tendency to leave their working place in the coming one year as reflected in the above strengthening of human resources study as well as a study by Assefa *et al* (2016:285-295) that demonstrates that the specialist physicians attrition rate were very high and stood at 21.4% in the Dire Dawa and 43.3% in the Amhara region.

This variation in job satisfaction score between public and private hospitals is expected in that the private hospitals, are by nature small to medium and have a better chance to engage their health workers than public hospital counterparts. In addition, they do have better payment scheme than public hospital health workers. Generally, private hospitals they do have competitive advantage to public hospitals; which is responsive to their need.

“Relationship with management” and “job content” have been predictors of general job satisfaction, as measured by a rating of the hospital of a scale of 10 (both predictors are statistically significant at  $P$ -value 0.001). This is explainable in that job satisfaction's powerful predictors are the inherent behaviour of the job and the way management treat health workers and give response to their concern. This explanation was endorsed by key informant interviews of the second phase of this study.

#### **6.3.4 Health worker empowerment in public and private hospitals of Addis Ababa**

All structural empowerment dimensions and psychological empowerment, just as with health worker job satisfaction, showed that private hospital workers had a higher score in structural

and psychological empowerment than their public hospital counterparts as in all cases, statistically significant P-value of 0.001 for all structural empowerment dimensions and P-value of 0.028 for psychological empowerment were noted. The mean scores of global empowerments, by the two variables, were high for private health workers with the differences statistically significant (P-value=0.001). Private hospital health workers had more empowerment than their public counterparts, however, an average total score of structural empowerment of both sectors were moderate (18.45 in public and 20.55 in private hospitals). A higher score of structural empowerment is considered to be more than 22.1 to 30 (average score is calculated based on the six dimensions of structural empowerment). The average of structural empowerment is better than one observed in a study carried in Iran (Ebrahim, Hanan, Mohammed, Babkeir and Hassan 2017:35-46). This trend is in line with health worker satisfaction of public and private hospitals in Addis Ababa. In addition, the results suggest that private hospital set ups create more access on information, support, and resources, formal and informal powers. Finally, private hospital workers feel more recognised and autonomous, give meaning to their jobs, and feel more competent, which amounts to psychological empowerment.

However, it is unusual in that private hospitals felt they had better opportunities than public hospitals. This is unusual because the private hospital workers' access to education (basic and short-term trainings opportunity) is very limited, and yet the respondents reported that they had better access to opportunity. This could be due to the limitations on access to education (especially long-term education). Almost all of public sector health workers, other than physicians, cover the tuition fee of their education as noted by the researcher from the gathering and analysis of data from the qualitative study.

Four variables were found as predictors of the global empowerment of health workers. These were: access to information ( $\beta=0.11$ , P-value=0.03); access to resources ( $\beta=0.15$ , P-value=0.01); formal power ( $\beta=0.11$ , P-value=0.01); and psychological empowerment ( $\beta=0.14$ , P-value=0.01). Therefore, private hospitals have more empowering structures as noted in the belief that there is a capacity to be empowered and acceptance that power exists in the relationship (Manojlovich 2007:1-9). Empowerment from the qualitative study was felt and related to decision making power, access to information about the organisation, readily available standards and with regards to helping patients with adequate resources.

Health workers within the age category of 31-40 years perceived their access to opportunity was higher than those whose age was greater than or equal to 50 years (P-value=0.04,

mean difference was 0.5). This could be due to those who are in the age 31-40 years who have strong convictions to pursue their education and search for different opportunities.

Finally, access to information and support had a significance difference among professional categories ( $P$ -value=0.01 and 0.02, respectively). In both cases, nurses had a higher mean score than specialist physicians: the mean differences between the two professional categories were 0.34 and 0.48 respectively). These nurses may have more networks and perhaps the structural support (access to information and support) targets them rather than specialist physicians. In addition, these hospitals may not have an adequate informational and support system for specialist physicians.

### **6.3.5 Patient safety culture in public and private hospitals of Addis Ababa**

The public and private hospitals' mean total patient safety scores were 3.58 and 3.77 respectively. At the same time, the mean total patient safety score difference between public and private hospitals were 0.19 with the independent sample t-test showing that the difference was statistically significant ( $p=0.02$ ). Finally, the public hospital health workers' mean score were lower than their private counter parts in all the eleven dimensions except for staffing.

Furthermore, the mean scores of all patient safety dimensions in Addis Ababa are higher than those obtained from studies on other parts of Ethiopia. Two studies take the mean scores of "positive responses" in each patient safety dimensions (Wami, Dessie, Wassele and Ahmed 2016:1-10; Mekonnen, Mclachian, Brien, Mekonene and Abay 2017:1-11). This difference could be the result of a methodological variation in calculating these values.

Nonetheless, private hospital health workers were of the view that their hospitals had a better overall grade of patient safety culture than that of public hospital health workers. The study results show that the mean difference was 0.19 and the difference was statistically significant ( $P$ -value=0.02). The researcher understood that private hospitals made their hospital decision making process very efficient and responsive on matters of patient safety and quality. The reasons favouring private hospitals are their size and the fact that they are in competition. Competition is a major push factor for private hospitals. The sector cannot survive in the competition if their system is inefficient and non-responsive, hence patient safety and quality health care are always on the private hospitals' top management's agenda.

The non-punitive response to medical error was not statistically different in both public and private hospitals. The observation was that both types of hospitals have the same environment regarding the non-punitive attitude. Key informants in the second phase pointed out that the current hospital environment (both in public and private) is punitive and reactionary on patient safety. In addition, low scores were recorded for staffing and non-punitive response for patient safety culture, which is similar in other studies (Arslan, Bakan and Erkan 2015:78-83).

Another observation is that communication openness had a negative relation with the overall patient safety grade given by health workers. This contrasts the current opinion on patient safety that communication openness improves patient safety and is one of the pillars in “just organizational culture” (Boysen 2013:400-406).

Finally, the two dimensions, “management support for patient safety” and “supervisor/manager expectation and actions promoting safety” had a direct and positive relationship with the dependent variable “overall grade of patient safety. The study noted the significance of hospital leadership and management attempts at improving patient safety. Nonetheless, one of the problems in current public Addis Ababa hospitals is that hospital leadership focuses on improving access to quality care without duly considering safety and quality of care.

Low score were recorded for staffing and non-punitive response for patient safety culture; which is similar in other studies(Arslan, Bakan and Erkan 2015:78-83).

### **6.3.6 Patients’ perception on quality of health care in public and private hospitals of Addis Ababa**

The “Overall rating of hospital” was better for private hospitals as it stood at 8.48 and 8.84 (or 84.8% and 88.4 %). The difference is statistically significant, P-value=0.03). This finding is better as previous patient satisfaction studies recorded perception rates that ranged from 52% to 77% (Assefa, Mosse and Michael 2011:101-109; Eyasu *et al* 2016:2-8).

Private hospital patients gave a better and favourable response regarding the care they received than public hospital patients except on the point on “willingness to recommend that hospital”. Instead, public hospital patients recommended the hospital better than private hospital patients. This could be due to high costs of care in private hospitals and the reality that clients are not happy about the costs of health care, as affirmed in the findings from the qualitative study.

In addition, private hospital patients were of the view that doctors and nurses treated them better than patients treated in public hospitals. The analysis arrived at a mean difference of 0.14 and 0.1, respectively with the differences being statistically significant (P-value=0.001). In addition, pain management, communication about medicine and the hospital environment were better in private hospitals with mean differences standing at 0.1, 0.43 and 0.22, while the P-values were less than or equal to 0.05.

Finally, the scores of the two dimensions of patient satisfaction, communication about medicine and Family and patient centred medical decision making, were lower. Both dimensions are interlinked in that one cannot engage or make the care patient-and-family-centred without communication. In addition, although private hospitals are better in “communication about medicine”, the score in both types of hospitals were low. One of the key findings of the qualitative study is that hospitals are not responsive to the needs of patients owing to the health workers’, (especially public hospitals) poor communication.

### **6.3.7 Effects of hospital leaders’ transformational, transactional and ineffective leadership on health workers’ empowerment, job satisfaction, patient safety culture and patient satisfaction**

The researcher could not model the relation between the above variables within three different population groups. The level of analysis could have been at unit or hospital level to create the model. However, there were no adequate data sizes because , the sample size should have been at least 200; or 10-20 cases per variable in order to make a structural equation model (Higgins 2015:80; Schumacker and Lomax 2016:126). Therefore, analysis at unit and hospital level is not possible because there are only 36 units and 9 hospitals and thus, below the adequate sample size.

Therefore, a simple non-parametric correlation was made at hospital level and the following observations were made from the analysis. Transformational leadership had strong and direct correlations with structural and psychological empowerment ( $r=0.70$ , P-value=0.04 and  $r=0.83$ , P-value=0.01, respectively). This is not surprising in that the two most important criteria to label a magnet hospital are transformational leadership and structural empowerment. A magnet hospital has an environment, which keeps nurses creative, sustains them for long period of time, and engages patients and their families in the care they garner (Lippincott solutions 2017; García and Fernandez 2018:2809-2819). Psychological empowerment could act as a mediator between transformational leadership

and organisational citizenship behaviour; or transformational leadership could directly affect psychological empowerment (Mohsen, Heydari, Mohammad and Davoodi 2012:224-230; Attari 2013:71-76; Jha 2014:18-35). Hence, transactional leadership had also a strong correlation with psychological empowerment.

Surprisingly the three measures of full range leadership measures did not show any significant correlation with patient satisfaction score. This could be due to the small sample size that fails to show any correlation between both variables.

### **6.3.8 Effects of health workers' job satisfaction, structural and psychological empowerment on patient safety culture**

A structural equation modelling was used to determine the effect of health worker job satisfaction and empowerment (both structural and psychological empowerment) on patient safety culture. The analysis showed that health worker job satisfaction had a strong and positive correlation with structural empowerment (correlation coefficient=0.73). The covariance between health workers' job satisfaction and structural empowerment was 0.15 and it was statistically significant ( $P$ -value<0.01). It also has predicted psychological empowerment, which had a statistically significant effect on psychological empowerment ( $\beta$ =0.14,  $P$ -value=<0.05). These observations concurred with observations made in similar studies. For instance, a systematic review by Cicolini, Comparcini and Simonetti (2013:1-17) shows that empowerment has a correlation with job satisfaction. The same study notes that a change in the characteristics of structural empowerment affects psychological empowerment and job satisfaction, and that structural empowerment has a direct and positive correlation with job satisfaction. Another systematic review by Zhang, Ye and Li (2018:9-16) shows a moderate correlation between nurses' structural and psychological empowerment ( $r= 0.5717$ ).

As already noted, the effect of job satisfaction on psychological empowerment was modelled in this study. Various studies arrived at a contrary view on the impact of psychological empowerment on job satisfaction. Nonetheless, it is plausible to think that psychological empowerment (competency, meaning, pride in one's job and thinking that the input one makes creates a difference) will affect job satisfaction. Other studies (Saif and Saleh 2013: 250-257; Ouyang, Zhou and Qu 2015:80-91) also demonstrate this.

Health worker job satisfaction also has a direct effect on patient safety culture ( $\beta$ =0.44,  $P$ -value=<0.01). Health workers' job satisfaction has had a strong and direct correlation with

patient safety culture as well as with structural empowerment ( $r=0.83$ ,  $P\text{-value}=0.005$  and  $r=0.78$ ,  $P\text{-value}=0.013$  respectively). At the same time, structural and psychological empowerment has a strong and direct correlation ( $r=0.82$ ,  $P\text{-value}=0.007$ ). Some existing studies, such as Janicijevic, Seke, Djokovic and Filipovic (2013) and Wagner, Hammer, Manser, Martus and Sturm (2018), also show that job satisfaction has a minimal to moderate correlation with patient safety culture and it is one of the predictors of patient safety culture.

Psychological empowerment has had a direct and statistically significant effect on patient safety culture ( $\beta=0.19$ ,  $P\text{-value}<0.01$ ). This is plausible in that health workers who have pride and give meaning to their job, feel competent, and think that action could make a difference has a positive impact positively affect patient safety culture. This is because these workers are proactive and take actions in improving the safety of the organisation. Hence, such workers work cooperatively and their efficacy is very high.

### **6.3.9 Factors affecting hospital leadership effectiveness, health worker job satisfaction and empowerment, patient safety and quality of health care**

This objective, the sixth objective, is answered by the results obtained the qualitative study. The researcher explored the main contextual factors, which affect leadership effectiveness, job satisfaction and empowerment, patient safety and the quality of health care. He identified seven priority areas, which need attention in order to provide better health care services in hospitals. Each of these identified priority areas is discussed below in light of the current country's strategy.

#### **6.3.9.1 Empowering and enabling workforce environment**

This theme mainly focuses on health worker satisfaction and empowerment. Various factors, such as working environment, resources, incentive packages, performance-based recognition and financing, respect for the profession and communication, emerged during the consideration of this theme. More than 80% of the study participants categories were dissatisfied with their salaries. The participants were also not broadly satisfied with the working and living conditions. The health workers pointed out their dissatisfaction with workload, work-related risks and hazards, the lack of equipment and supplies, water and power supplies at work and home and that safe transport from home to work and vice versa, and limited access to children's schools. The findings of this study are in agreement with other studies. The Jhpiego HRH project on job satisfaction and factors affecting health workers' retention notes that the major contributing factor to low job satisfaction is related to

incentives and working conditions. The Ethiopia Strengthening Human Resources for Health Project and Ababa (2015:8-9) states that three quarters of the health care manager respondents were not satisfied with their working and living conditions. Finally, the Ministry of Health National Human Resource for Health Strategic Plan (2015-2025) captures, among its priority areas, the strategic objective of “staff motivation and retention”, both financial and non-financial, thus indicating the need to improve the Ethiopian health sectors’ working conditions. The strategy document also noted lack of adequate inputs is one of the reason for low productivity in health care settings (Ministry of Health 2016b: 38-39).

#### **6.3.9.2 Transparent accountable and effective hospital governance and leadership**

There are different standards, policy and procedures that are on hospitals. Various guidelines and regulation standards have been existence or are currently emerging. The Ethiopian Hospital Transformation Guideline, EFMHACA’s health facilities regulation standards, and treatment guidelines at health centres’ primary and general hospitals are of notable importance here. However, the policies and procedures, which determine power and responsibilities of each leadership position are either lacking or not known. For instance, the Ethiopian Hospital Transformation Guideline has multiple standards divided into 20 chapters with chapters that focus on finance, human resource, and leadership and governance, being some of the chapters, which provide information on how to govern the administration part of the hospital. Nonetheless, the guide only puts standards and not the power and authority of each line of leadership (Ministry of Health 2016g:70-90).

The research identified high turnover of the leadership position. The major reason for the high turnover is that it offers little rewards. In addition, the researcher found out that the hospital board is not strong. This finding is in agreement with the health sector transformation plan mid-term review (Ministry of Health 2018c:45-47).

A further finding notes that governance and accountability of university hospitals are creating a problem. This is because public and university hospitals are dually reporting to both Ministry of Health and Ministry of Education thus leading to the creation of confusion. The good governance index report on hospitals demonstrated this situation (Ministry of Health 2019:20).

#### **6.3.9.3 Health science education and continuous professional development**

The main points raised in the findings are related to the recruitment of students, ensuring quality of health science education, long term leadership education and continuous

professional development. The 10-year human resource development plan underscored the importance of recruiting health science students based on high school grades and the applicant's motivation to join the field. In addition, the quality of health science education and long-term leadership program is underscored in the strategic document. The accreditation of health science education colleges and training institutions is one of the interventions written as a strategic objective on the strategy document (Ministry of Health 2016b:33-35). The mid-term review on the health sector transformation plan indicated the main challenges encountered by the current health science education colleges include: lack of practicing places for students, high variability in quality of curricula, shortage of faculty and quality, and lack of infrastructure. The flooding strategy, which the government adopted, has created various problems regarding the quality of health science education (Assefa *et al.*, 2017; Ministry of Health, 2018b).

A further finding is that continuing professional development should be emphasised and enforced on all practicing health care workers. The strategy envisioned linking continuing professional development with career advancement and re-licensure (Ministry of Health 2016b:33-35). However, the existence of the legal framework has not been met with an introduction of continuing professional development for all practicing health workers.

#### **6.3.9.4 Strengthening quality and safety systems**

A major finding is that quality and safety recently started to receive priority with the country's Health Sector Transformation Plan being one of the new guidelines aiming at achieving quality as one of the transformation agenda (Ministry of Health 2015b:111). Ethiopia also prepared a quality strategy document in 2015. The four major focus areas of the 2015 strategy document are: developing an integrated approach to planning, improving and controlling quality, activating key constituencies particularly to motivate the workforce, building leadership across all levels to meet patient and community demand for quality, driving the improvements in quality by explicitly linking the Universal Health Coverage (UHC) strategy with quality, and supporting strong data systems and feedback loops as "backbone" of all improvement actions (Ministry of Health 2016e:16). The emerging points from this research are to some extent seeking to fulfil elements of this strategy document.

The study found out that one of the reasons for the lack of both quality and safety in hospitals is system overburden and fragmentation. Hospitals in Addis Ababa work beyond their capacity. This finding is in agreement with the general observation on the challenges faced by public hospitals. In addition to over burden , the current Addis Ababa public hospitals do

not function up to optimal capacity due to lack of coordination among units (Ministry of Health, 2016h:17). One of the research findings-linked recommendation is that hospitals should be considered as a system in an attempt to resolve the existing lack of system harmony. In addition, the study recommends the introduction of system thinking to this system fragmentation.

A further finding relates to the limitation observed in the existing quality and safety structure. The study noted that a quality and safety structure, starting from the Ministry of Health to the health centre level, is currently in place. However, the existing structure is not strong and the necessary human resource, policies and guidelines are not adequate (Ministry of Health 2018c:13).

The researcher's observation lead to the identification of data driven decision-making as one of the areas that need to be strengthened. The 2016 quality structure identified this as one area of focus and yet the performance of data driven decision making is not strong. In fact, the health sector transformation plan envisions an "information revolution" as one of the areas of the transformation. However, the mid-term review of the HSTP revealed still that there is a weak linkage between evidence generation and use of that information for action (Ministry of Health 2018c:17).

One of the problems in quality and safety improvement is lack of accountable organisation, which is one of the sub-themes that emerge from this study. One of the reasons could be lack of professional scope of practice, thus the Ministry of Health must act swiftly to enforce professional scope of practice. Medical students and practicing residents in university hospitals should always work under senior physicians' discretions. Just as societal engagement and patient-centred care should be one area of focus and needs an improvement (Ministry of Health, 2016h:15). The country's quality strategy identified the improvement of societal literacy and provision of patient-centred care as a priority area (Ministry of Health 2016e:16-18, thus indicating the need to improve accountability and quality.

#### **6.3.9.5 Strengthening health care financing**

The study also found out that, while the health care budget has been increasing with successive years, health care is not adequately funded. The health sector transformation plan mid-term review states that the government share of total health care expenditure was 7% and below the expected 10% (Ministry of Health 2018c:17). The WHO recommends

that each country should invest 60 USD per capita, but the figure for Ethiopia plunged to 28.5 USD per capita (Avila, Connor and Peter 2013:1). This study observed that there is a severe deficiency of health care funds, especially in public hospitals, as affirmed by most respondents in this study. The study noted the hospitals contend with both inadequate finances and severe inefficiency such that adding more finances without revitalising the system creates further inefficiency.

The quality strategy document identifies the national health insurance agency as a driver of quality and enforcer of guidelines and protocols on hospitals and health centres. Those which comply with the regulatory standard will get refunded and rewarded (Ministry of Health 2016e:26). Therefore, strengthening the health insurance will help to, in addition to mobilizing the necessary funds for health care, improve quality and safety of health care.

#### ***6.3.9.6 Use of technology and innovation***

Improving health infrastructure and enhancing use of technology and innovation were the two strategic objectives identified in the five year health sector transformation plan (Ministry of Health 2015b:108-109). One of the problems in hospitals is that they do not have improved Information technology infrastructure so that they could easily communicate using the net. The midterm review of the health sector transformation plan cited deployment of computers to the health facilities, and, yet, it did not comment functionality of information technology (Ministry of Health 2018c:73).

#### ***6.3.9.7 Enhance role of private health sector***

The finding here is that private sectors are mentioned in the health sector transformation plan's focus on health science education and the expansion of access to medical services to the public (Ministry of Health 2015b:108-111). In addition, public private partnership is one area identified as a strategy to establish medical city and children's hospital in Addis Ababa. However, the findings show that private hospitals face enormous challenges that need government attention and support in order to create a favourable environment.

### **6.4 CONCLUSION**

Therefore, the following conclusions are made based on the first and second phase of this study.

The majority of the current hospital workforce is very young and less experienced. In addition, nurses are the major contributor of health workforce in hospitals.

The perceived leadership style of public and private hospitals is more or less the same. In all other dimensions, private hospitals have better performance in health worker satisfaction, empowerment, patient safety culture, and patient experience of quality of health care.

The study also concludes that the major influencer of health worker satisfaction is the relationship with management and job content. Phase two of this study elaborates this further. Health workers are dissatisfied because of various reasons. The reasons for dissatisfaction include, the hospital environment's failure to provide the necessary inputs to treat patient, health workers are non-recognition of their performance, health science students who do not join the field based on their interests, the receipt of low salaries, and exposure to a lower quality of health science education. Hence, health workers are not overly satisfied due to various reasons.

Health worker empowerment is generally low in public hospitals compared to the private sector. The major determinants of structural empowerment are access to information, resources, formal power and psychological empowerment. Psychological empowerment is associated with giving meaning to one's job, feeling competent, self-determination (self-initiation and autonomy) and sense of meaningful impact (employee believes he/she can influence outcome of the job). Given the current situation, access to resources and information is very limited; almost autonomy and power are almost non-existent (especially in federal hospitals). Middle and lower level managers do not believe that they can influence their job because their power in decision making is very restricted. This phenomenon prevents able people from taking an interest in occupying management positions, because they think that their impact would not be significant.

It is also concluded that patient safety culture and patients experience of quality of health care are better in private hospitals. The better experiences and safety culture in private hospitals does not however translate to higher hospital care standards. In fact, the observation here, regarding patient safety and quality, is that both the public and private hospitals share the same challenges, although these vary to a limited extent.

Nevertheless, it is not possible to create accountable and responsive organisations for patient safety and quality in public hospitals. This because the hospital environment is not attractive to work in and thus, leading a low job satisfaction and ultimately poor quality of care and safety. Lack of interdisciplinary teamwork is the hall mark of public hospitals. In addition, individual health workers and leadership have little awareness for patient safety

and possess a low literacy level over patient's rights and responsibilities. Thus, the general conclusion is that system inefficiency is the hall mark of public hospitals which result in poor patient safety.

Furthermore, the safety and quality are poor due to various reasons. The factors accounting for the observed poor quality include the existence of a non-standardised care provision, a fragmented and not patient centred services, low data usage that hinders the improvement of quality and safety, a low societal awareness generally and existence of a culture that is generally not supportive of safety and quality premises.

Another conclusion based on phase one and two of the study concerns leadership and governance. Accountability, empowerment and autonomy is very low in the hospital care sector. There is a lack of standards, policies and procedures and this has created excessive organisational red tape. In addition, lack of transparency and excessive political interference has left hospital leadership in jeopardy as professionals do not assume the leadership positions based on their merit. In fact, most health care professionals are not interested in taking these positions in the first place owing to meagre incentive packages and the prevalence of corruption in hospital management. In addition, there is no system to mentoring future leaders nor are there enough leadership training centres in the country.

The final conclusion is that private health sector is facing difficulties because of the double standards from the government noted in its favouring of public hospitals, and the fact that the Ethiopian Food, Medicine and Health Care Administration Standard and Labour Law create an obstacle. Generally, there is an unfavourable policy environment for the private sector where the sector does not get much attention like the hotel and tourism sector. The double standards could be expressed in the issuing of patient board certificates, medical examination, in applying the standard of EFMHACA, biased release of foreign currency to procure drugs, and the restriction of private hospital practitioners from accessing long term education. Despite all these favouritism, the private sector's practicing health workers scored more in health worker satisfaction, empowerment, patient safety culture and patient experience of quality of health care.

## **6.5 RECOMMENDATIONS**

The most important factor in improving health worker satisfaction is to develop the job content and relationship with management. The creation of more access to information,

support, formal power and psychological empowerment also makes it possible to improve global empowerment.

In addition, patient safety culture could be directly affected by health worker satisfaction; and structural empowerment could affect patient safety culture through the mediating effect of psychological empowerment. Therefore, the recommendation is that health workers' satisfaction, psychological empowerment and structural empowerment should be prioritised as very critical in order to improve the safety culture of hospitals.

To improve effectiveness of hospital leaders a strategy document was prepared in chapter five to alleviate hospital challenges related to job satisfaction, empowerment, patient safety, patient experience of quality of care, and to improve the larger context of hospital leaders' outcomes on effectiveness. This phase broadens the findings of the first phase of study. As a result, key recommendations are presented as practices and education. Practices should be upheld, policies need to be adopted, and education should be revamped in a way that improves both knowledge and skills acquisition and people's attitudes.

### **6.5.1 Practices**

Health worker satisfaction can improve through the placing of accountable, candid and responsive leadership and establishing open communication with health workers. Environmental factors play a great role in improving health worker satisfaction. The provision of necessary resources and improvement of the general working condition will assist greatly towards advancing health worker satisfaction and empowerment.

Much must be done to improve leadership and governance of hospitals. Leadership must be authentic and create smooth communication with health workers and other stakeholders. Management, by objective, must be in place so that leaders could be mission driven. In addition, hospital leaders should establish leadership succession planning so that when they leave the position, the shadow leaders can easily replace them.

Furthermore, rebranding the current engagement frameworks is important to make real engagement with health workers and community. Health workers can promote patient safety and quality through a "just organizational culture" and people centred care. Patient safety and quality must be the top priority of the health care system; currently it is not. Access to care must be balanced with quality and safety, as one definition of equity is equal access of quality of care for all.

System thinking and system engineering should be in place and have strong quality and safety structure. System thinking is basic especially for patient safety promotion, and avoiding blame culture. At the same time, the structure must be strengthened to promote and work on it systematically. In addition, this structure must be strengthened with the necessary policies, procedures, human resource and adequate budget to maximise its effectiveness.

Decision making and communication are also significant practices in enhancing health care. Data based decision making is one of the practices that should be promoted in hospitals to improve efficiency and effectiveness. In addition, strengthening people centred care by improving people's health literacy and engaging them in the production of their health is very critical. Thus, improving communication with patients is a central pillar to strengthening people-centred care.

Huge investments in the health care sector are necessary. The investment on health care, currently marked by the country's less than 7% of its budget investment, should be increased. Health insurance could lead to a massive improvement of the quality of care. Thus, the role of the national health insurance agency in improving quality of care must be worked out and made clear from the outset. Furthermore, the private health sector could play a vital role in improving access and especially advanced health care, which also means that the sector must be given urgent attention to bring private health hospitals on board.

### **6.5.2 Policies**

Numerous policies, laws, regulations and procedures must be enacted, or revived, to improve hospital performance, accountability and transparency in Ethiopia. The proposed changes should occur in the laws related to finance, on matters related to procurement and labour administration, with regard to policies related to performance-based financing and recognition (both for health workers and hospital leaders), and in attempts at innovations particularly procedures related to hospital management, patient safety and quality.

The profession, standards and policies should also be considered here. The Ministry of Health must determine the professional scope of work and give urgent attention to promote accountability and transparency in hospitals. Thus, regulation and continuous standardisation of all major hospital activities will help to improve the institutions' efficiency and effectiveness. Finally, policies and laws, which promote engagement with the private

hospitals should be enacted in addition to abrogating those laws and policies which prevent their engagement.

### **6.5.3 Education**

One area that must be reinforced is the quality of health science education and continuing professional development. The current health science recruitment system and culture of health science education colleges should be redesigned as a critical step towards the improvement of the quality of medical education. This must be accompanied by a fully-fledged resourcing of health science education colleges. The health science students curriculum should strive at a balanced focus in order to achieve profound and subject matter knowledge. A system of continuing professional development must also be enforced soon with license renewal of health professionals. In addition, leadership training programs must be started soon so that leaders can get equipped with necessary competencies. Finally, the role of innovation and technology should not be overlooked in improving leadership effectiveness, quality of care and patient safety.

## **6.6 CONTRIBUTION OF THE STUDY**

This study is the first of its kind in that it compares multiple variables between public and private hospitals in Ethiopia. Most health system research marginalises the private health sectors and focus only on public hospitals. This study duly covered both sectors. Therefore, there now exists baseline data on both public and private hospitals' leadership styles, health worker satisfaction and empowerment, patient safety culture and patient experience of quality of health care.

In addition, the strategy formulated in this study and its suggestion to improve the effectiveness of hospital leadership makes a significant contribution to the body of knowledge on health worker satisfaction and empowerment, patient safety and quality. The strategy document scanned the current challenges of hospital leaders from the perspective of improving health worker satisfaction and empowerment, patient safety and quality as well as leadership and governance. The strategy document touches on every pillar of health system. As a result, a Ministry of Health acceptance of the valuable recommendations and inclusion in the new health sector transformation plan will lead to the betterment of health sector in Ethiopia.

The challenges and recommendations given on how to improve and harmonize the private health sector constitute a very valuable contribution of this study. The researcher is of the

view that this is the only study, so far, that comprehensively identify challenges of private health sector and give recommendations to improve the private health sector in Ethiopia.

### **6.7 LIMITATION OF THE STUDY**

The study is only based on Addis Ababa city council, which is one of the 11 administrative regions of Ethiopia. The researcher could not take samples from hospitals located in other regions. Therefore, caution must be taken not to generalize findings to hospitals in the country's other regions.

The researcher is aware that there were some limitations to understanding patient safety questionnaire items, and that it would have been better to translate all questionnaires into the local language.

Further limitations are related with the use of the MLQ questionnaire form. It would have been better to use a follower form of the MLQ questionnaire to followers that had filled questionnaire. It could also have been possible to identify the relationship between leadership styles and other variables with advanced modelling technique. However, the above was not possible in this study as the analysis was made at hospital level. In addition, a small number of hospitals were considered and these were not huge enough to carry out other advanced techniques, which all require at least 200 samples.

Finally, modelling was done at the level of health workers on variables (health workers satisfaction, empowerment and patient safety culture), which all were taken from health workers. Most of the research on transformational leadership and empowerment has focused on nurses; and referencing those studies were mandatory. Research on physicians and other cadres of health professionals are almost non-existent.

### **6.8 CONCLUDING REMARKS**

The hospitals in Addis Ababa, especially the public ones, are in a dire situation. They lack enough resources, health worker satisfaction and empowerment, patient safety and quality, and the hospital leadership is mostly inefficient. Major sources of grievances for these hospitals are: excessive political interference; lack of policies, procedures and manuals; and an obsession with expanding access by circumventing quality and safety.

The low quality of health workers' education is also a contributor to the difficulties faced the country's health care sector. The concerned bodies should focus on pre-service education in order to improve health care quality, safety, hospital leadership, health worker satisfaction and empowerment. In addition, failure to take due action on pre-service education will not

yield a health sector that is decent, peopled by hard working and trustworthy personnel, and accountable people. Thus, the study concludes that the public hospitals need reforms to survive and thrive, and give safe and acceptable quality of care.

Almost all areas private hospitals perform better as affirmed by the two phases of this study. Nonetheless, private hospitals in Ethiopia are currently working in an environment that lacks supports, suffers from double standards from government, and lacks equal attention as other sectors such as hotel and tourism. The conclusion here is that the private health sector must be viewed as one system that is working to promote the health of the nation and also in need of due attention from policy makers.

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## **ANNEXURES**

# ANNEXURE A: ETHICAL CLEARANCE CERTIFICATE FROM THE DEPARTMENT OF HEALTH STUDY, UNISA



## RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES REC-012714-039 (NHERC)

15 February 2017

Dear Dr Y Getachew

**Decision: Ethics Approval**

**HSHDC/627/2017**

Dr Y Getachew

Student: 5854-060-1

Supervisor: Prof ZZ Nkosi

Qualification: PhD

Joint Supervisor: *teigular Snip*

**Name:** Dr Y Getachew

**Proposal:** Strategies to improve effectiveness of hospital leadership in Ethiopia.

**Qualification:** DPCHS04

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted for the duration of the research period as indicated in your application.

*The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on 15 February 2017.*

*The proposed research may now commence with the proviso that:*

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



Open Rubric

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3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

4) *[Stipulate any reporting requirements if applicable].*

**Note:**

*The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.*

Kind regards,

Prof L Roets  
CHAIRPERSON  
[roetsl@unisa.ac.za](mailto:roetsl@unisa.ac.za)

  
Prof MM Moleki  
ACADEMIC CHAIRPERSON  
[molekmm@unisa.ac.za](mailto:molekmm@unisa.ac.za)

**ANNEXURE B: ETHICAL CLEARANCE LETTER FROM ADDIS ABABA ETHICAL REVIEW COMMITTEE TO ACCESS HOSPITALS**



አዲስ አበባ ከተማ አስተዳደር ጤና ቢሮ  
City Government of Addis Ababa Health Bureau

Ref. No ሰ/ሰ/ከ/ባ/ጤ/ሀ/፳፻፲፱/፳፻፲፱  
Date 22/5/2019

To :

- Zewditu Memorial Hospital
- Teremesk Beijing Hospital
- Ras Desta Dantewu Memorial Hospital
- Tekle Haymanot General Hospital
- Myungsoong Christian Medical Center
- Addis Ababa Food Medicine Health Care Administration and Control Authority
- Addis Ababa
- Betezeta General Hospital
- Girum General Hospital
- Saint Yared General Hospital
- Bethel 2 General Hospital
- Addis Hiwet General Hospital

**Subject: Request to access health facilities to conduct approved research**

This letter is to support **YENENENH GETACHEW HAILE** conduct research, which is entitled as "Strategies to improve effectiveness of hospital leadership in Addis Ababa"

The study proposal was dully reviewed and approved by Addis Ababa Health Bureau ERC, and the principal investigator is informed with a copy of this letter to report us if any changes in the study procedures and submit an activity progress report to the Ethical Committee as required. Therefore, we request your office and staffs to provide support to the Principal investigator.

With Regards



*OH*  
Kasayenew Amare

Ethical Clearance committee

CC

- **YENENENH GETACHEW HAILE**
- Ethical Clearance Committee
- Addis Ababa

## **ANEXURE C: INFORMATION LEAFLET AND CONSENT**

Consent for participation in a research interview for health workers who are working in hospitals

Title of the assessment: Strategies to improve effectiveness of hospital leadership in Ethiopia

**Name of Investigators: Yeneneh Getachew Haile**

Thank you for devoting your time to give this interview. I am, Dr Yeneneh Getachew, currently studying for Doctor of Literature and Philosophy (PhD) in Health Studies at the University of South Africa College Of Human Sciences, and I am expected to conduct a research as required for fulfilment. The purpose of this study is to propose strategies to improve effectiveness of hospital leadership which enhance health care quality in hospitals directly — or indirectly through the mediating effect of health workers' empowerment, job satisfaction and patient safety culture.

Ask the interviewer if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part in or not. Thank you for the time you have spent to respond every question in self-administered questionnaire.

**Possible harms:** There is no harm associated with participating in this assessment. It may take 30 minutes to fill this self-administered questionnaire.

**Benefits:** There is no direct benefit from involvement of this study. However, hospital leadership strategies synthesized from this study will help to improve quality of health care rendered in Ethiopian hospitals.

**Autonomy:** If you wish to discontinue the questionnaire at any time, you may. However, all the information you give us is highly valuable to the study. If you decide to take part, you will be asked to sign a consent form. If you decide to decline, you are still free to do so at any time, and without giving a reason. If you decide not to participate, it does not have any effect on you.

**Confidentiality:** All information which is collected about your career during the assessment will be kept on a password protected database and is strictly confidential.

Please read this form and sign it once the above named or his designated representative has explained fully the aims and procedures of the assessment to you.

1. I agree to participate in a research project led by Dr Yeneneh Getachew Haile from the University of South Africa as fulfilment of doctoral thesis. The purpose of this

document is to specify the terms of my participation in the project through being interviewed.

2. I have been given sufficient information about this research project. The purpose of my participation as an interviewee in this project has been explained to me and is clear.
3. My participation as an interviewee in this project is voluntary. There is no explicit or implicit coercion whatsoever to participate.
4. Participation involves being interviewed by principal investigator or a designated person by the principal investigator. The interview will last approximately 30 minutes.
5. I have the right not to answer any of the questions. If I feel uncomfortable in any way during the interview session, I have the right to withdraw from the interview.
6. I have been given the explicit guarantees that, if I wish so, the researcher will not identify me by name or function in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. In all cases subsequent uses of records and data will be subject to standard data use policies at the University of South Africa.
7. I have read and understood the points and statements of this form. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

**Telephone number:** .....

**Signature:** ..... **Date:** .....

I confirm that I have fully explained the purpose of the study and what is involved to.

**Investigator's Signature:** ..... **Name:** .....

Contact Address: Yeneneh Getachew Haile, principal investigator

Tell: +251923245142

## ANNEXURE D: HEALTH WORKER INTERVIEW QUESTIONNAIRE

### Part I: job satisfaction survey instrument for health workers

Hospital Name: -----

#### SECTION A: Your Work Area/Unit

In this survey, think of your “unit” as the work area, department, or clinical area of the hospital where you spend most of your work time or provide most of your clinical services.

What is your primary work area or unit in this hospital? Select ONE answer.

1. Many hospitals units/no specific unit	2. Emergency department	3. Internal medicine
4. Surgery	5. Obstetrics	6. Pediatrics
7. Intensive care unit	8. Psychiatry/mental health	9. Pharmacy
10. Laboratory	11. Radiology	12. Anesthesiology
13. Other----- ---		

**Instructions:** Listed below are a series of statements that represent possible feelings that individuals might have about the hospital for which they work. With respect to your own feelings about your hospital for which you are now working, please indicate the degree of your agreement or disagreement with each statement by checking one of the four alternatives below each statement. Please place an X in one of the four boxes after each statement as you believe it applies to you personally in this organization

Read each statement carefully	1	2	3	4
	Strongly disagree	Disagree	Agree	Strongly agree
1. The management of this organization is supportive of me	1	2	3	4
2. I receive the right amount of support and guidance from my direct supervisor	1	2	3	4
3. I am provided with all trainings necessary for me to perform my job	1	2	3	4
4. I have learned many new job skills in this position	1	2	3	4

5. I feel encouraged by my supervisor to offer suggestions and improvements	1	2	3	4
6. The management makes changes and based on my suggestions and feedbacks	1	2	3	4
7. I am appropriately recognized when I perform well at my regular work duties	1	2	3	4
8. The organization rules make it easy to do a good job	1	2	3	4
9. I am satisfied with my chances of promotion	1	2	3	4
10. I have adequate opportunities to develop my professional skills	1	2	3	4
11. I have accurate written job description	1	2	3	4
12. The amount of work I am expected to finish each week is reasonable.	1	2	3	4
13. My work assignments are always clearly explained to me	1	2	3	4
14. My work is evaluated based on a fair system of performance standards	1	2	3	4
15. My department provides all the equipment, supplies, and resources necessary for me to perform my duties	1	2	3	4
14. The buildings, grounds and layout of this facility are adequate for me to perform my work duties	1	2	3	4
15. My coworkers and I work together	1	2	3	4
16. I feel I can easily communicate with members from all levels of this organization	1	2	3	4
17. I would recommend this health facility to other workers as a good place to work	Definitely no	Probably no	Probably yes	Definitely yes
18. How would you rate this health facility as a place to work on a scale of 1(the worst) to 10(the best)	1..... .....10 Worst Best			

**Part II. CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE-II**

Please circle the number that indicates how much you experience in your job for each question

**HOW MUCH OF EACH KIND OF OPPORTUNITY DO YOU HAVE IN YOUR PRESENT JOB?**

		None		Some		A lot
1	Challenging work.	1	2	3	4	5
2	The chance to gain new skills and knowledge on the job.	1	2	3	4	5
3	Tasks that use all your own skills and Knowledge.	1	2	3	4	5

**HOW MUCH ACCESS TO SUPPORT DO YOU HAVE IN YOUR PRESENT JOB?**

		None		Some		A lot
1	Specific information about things you do well.	1	2	3	4	5
2	Specific comments about things you could improve.	1	2	3	4	5
3	Helpful hints or problem solving advice	1	2	3	4	5

**HOW MUCH ACCESS TO INFORMATION DO YOU HAVE IN YOUR PRESENT JOB?**

		No knowledge		Some knowledge		Know A lot
1	The current state of the hospital.	1	2	3	4	5
2	The values of top hospital management.	1	2	3	4	5
3	The goals of top management	1	2	3	4	5

**HOW MUCH ACCESS TO RESOURCES DO YOU HAVE IN YOUR PRESENT JOB?**

		None		Some		A lot
1	Time available to do the necessary paperwork.	1	2	3	4	5
2	Time available to accomplish job requirements.	1	2	3	4	5
3	Acquiring temporary help when needed.	1	2	3	4	5

**HOW MUCH OPPORTUNITY DO YOU HAVE FOR THESE ACTIVITIES IN YOUR PRESENT JOB?**

		None		Some		A lot
1	Collaborating on patient care with physicians.	1	2	3	4	5
2	Being sought out by peers for help with problems.	1	2	3	4	5
3	Being sought out by managers for help with Problems.					
4	Seeking out ideas from professionals other than physicians, e.g., Physiotherapists, Occupational Therapists, and Dieticians.	1	2	3	4	5

**IN MY WORK SETTING/JOB:**

		None		Some		A lot
1	The rewards for innovation on the job are	1	2	3	4	5
2	The amount of flexibility in my job is	1	2	3	4	5
3	The amount of visibility of my work-related activities with-in the institution is	1	2	3	4	5

**GLOBAL EMPOWERMENT**

		Strongly disagree				Strongly agree
1	Overall, my current work environment empowers me to accomplish my work in an effective manner.	1	2	3	4	5
2	Overall, I consider my workplace to be an empowering environment.	1	2	3	4	5

**Part III Survey of Psychological empowerment**

Listed below are a number of self-orientations that people may have with regard to their work roll. Using the following scale, please indicate the extent to which you agree or disagree that each one describes your self-orientation.

Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
0	1	2	3	4	5	6

1. I am confident about my ability to do my job.	0	1	2	3	4	5	6
2. The work that I do is important to me.	0	1	2	3	4	5	6
3. I have significant autonomy in determining how I do my job.	0	1	2	3	4	5	6
4. My impact on what happens in my department is large.	0	1	2	3	4	5	6
5. My job activities are personally meaningful to me.	0	1	2	3	4	5	6
6. I have a great deal of control over what happens in my department.	0	1	2	3	4	5	6
7. I can decide on my own how to go about doing my own work.	0	1	2	3	4	5	6
8. I have considerable opportunity for independence and freedom in how I do my job.	0	1	2	3	4	5	6
9. I have mastered the skills necessary for my job.	0	1	2	3	4	5	6
10. The work I do is meaningful to me.	0	1	2	3	4	5	6
11. I have considerable influence over what happens in my department.	0	1	2	3	4	5	6
12. I am self-assured about my capabilities to perform my work activities.	0	1	2	3	4	5	6

#### Part IV. Hospital Survey on Patient Safety

##### Instructions

**This survey asks for your opinions about patient safety issues, medical error, and event reporting in your hospital and will take about 10 to 15 minutes to complete. If you do not wish to answer a question, or if a question does not apply to you, you may leave your answer blank.**

- **An “event”** is defined as any type of error, mistake, incident, accident, or deviation, regardless of whether it results in patient harm.
- **“Patient safety”** is defined as the avoidance and prevention of patient injuries or adverse events resulting from the processes of health care delivery.

#### **SECTION A: Your work area/unit**

**Please indicate your agreement or disagreement with the following statements about your work area/unit. Circle**

<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Think about your hospital work area/unit...**

1. People support one another in this unit.	1	2	3	4	5
2. We have enough staff to handle the workload.	1	2	3	4	5
3. When a lot of work needs to be done quickly, we work together as a team to get the work done.	1	2	3	4	5
4. In this unit, people treat each other with respect.	1	2	3	4	5
5. Staff in this unit work longer hours than is best for patient care.	1	2	3	4	5
6. We are things to improve patient safety.	1	2	3	4	5
7. We use more agency/temporary staff than is best for patient care.	1	2	3	4	5

<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**SECTION A: Your Work Area/Unit (continued)**

8. Staff feel like their mistakes are held against them.	1	2	3	4	5
9. Mistakes have led to positive changes here.	1	2	3	4	5
10. It is just by chance that more serious mistakes don't happen around here.	1	2	3	4	5
11. When one area in this unit gets busy, others help out.	1	2	3	4	5
12. When an event is reported, it feels like the person is being written up, not the problem.	1	2	3	4	5
13. After we make changes to improve patient safety, we evaluate their effectiveness.	1	2	3	4	5
14. We work in "crisis mode" trying to do too much, too quickly.	1	2	3	4	5
15. Patient safety is never sacrificed to get more work done.	1	2	3	4	5
16. Staff worry that mistakes they make are kept in their personnel file.	1	2	3	4	5
17. We have patient safety problems in this unit.	1	2	3	4	5
18. Our procedures and systems are good at preventing errors from happening.	1	2	3	4	5

**SECTION B: Your Supervisor/Manager**

Please indicate your agreement or disagreement with the following statements about your immediate supervisor/manager or person to whom you directly report.

1. My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures.	1	2	3	4	5
2. My supervisor/manager seriously considers staff suggestions for improving patient safety.	1	2	3	4	5
3. Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking short cuts.	1	2	3	4	5
4. My supervisor/manager over looks patient safety problems that happen over and over.	1	2	3	4	5

**SECTION C: Communications**

Never                  Rarely                  Some times                  Most of the time                  Always                  How

1	2	3	4	5
---	---	---	---	---

often do the following things happen in your work area/unit?

Think about your hospital work area/unit...

1. We are given feedback about changes put into place based on event reports.	1	2	3	4	5
2. Staff will freely speak up if they see something that may negatively affect patient care	1	2	3	4	5
3. We are informed about errors that happen in this unit.	1	2	3	4	5
4. Staff feel free to question the decisions or actions of those with more authority.	1	2	3	4	5
5. In this unit, we discuss ways to prevent errors from happening again.	1	2	3	4	5
6. Staff are afraid to ask questions when something does not seem right.	1	2	3	4	5

**SECTION D: Frequency of Events Reported**

In your hospital work area/unit, when the following mistakes happen, how often are they reported?

Never                  Rarely                  Some times                  Most of the time                  Always

1	2	3	4	5
---	---	---	---	---

1. When a mistake is made, but is caught and corrected before affecting the patient, how often is this reported?	1	2	3	4	5
2. When a mistake is made, but has no potential to harm the patient, how often is this reported? .	1	2	3	4	5
3. When a mistake is made that could harm the patient, but does not, how often is this reported?	1	2	3	4	5

### **SECTION E: Patient Safety Grade**

**Please give your work area/unit in this hospital an overall grade on patient safety.**

*A. Excellent      B. Very good      C. Acceptable      D. Poor      E. Failing*

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### **SECTION F: Your Hospital**

**Strongly disagree**

**Disagree**

**Neutral**

**Agree**

**Strongly agree**

1	2	3	4	5
---	---	---	---	---

**Please indicate your agreement or disagreement with the following statements about your hospital.**

**Think about your hospital.....**

1. Hospital management provides a work climate that promotes patient safety.	1	2	3	4	5
2. Hospital units do not coordinate well with each other.	1	2	3	4	5
3. Things “fall between the cracks “when transferring patients from one unit to another.	1	2	3	4	5
4. There is good cooperation among hospital units that need to work together.	1	2	3	4	5
5. Important patient care information is often lost during shift changes.	1	2	3	4	5
6. It is often unpleasant to work with staff from other hospital units.	1	2	3	4	5
7. Problems often occur in the exchange of information across hospital units	1	2	3	4	5
8. The actions of hospital management show that patient safety is a top priority.	1	2	3	4	5

9. Hospital management seems interested in patient safety only after an adverse event happens.	1	2	3	4	5
10. Hospital units work well together to provide the best care for patients.	1	2	3	4	5
11. Shift changes are problematic for patients in this hospital.	1	2	3	4	5

### **SECTION G: Number of Events Reported**

**In the past 12 months, how many event reports have you filled out and submitted?**

- A. No event reports
- B. 1 to 2 events
- C. 3 to 5 events
- D. 6 to 10 events
- E. 11 to 20 events
- F. 21 events and more

### **SECTION H: Background Information**

**This information will help in the analysis of the survey results.**

1. How long have you worked in this **hospital**?

<b>a. &lt; one yr.</b>	<b>b. 1 to 5 yrs.</b>	<b>c. 6 to 10 yrs.</b>
<b>d. 11 to 15 yrs.</b>	<b>e. 16 to 20 yrs.</b>	<b>f. &gt;21 yrs</b>

2. How long have you worked in your current hospital **work area/unit**?

<b>a. &lt; one yr.</b>	<b>b. 1 to 5 yrs.</b>	<b>c. 6 to 10 yrs.</b>
<b>d. 11 to 15 yrs.</b>	<b>e. 16 to 20 yrs.</b>	<b>f. &gt;21 yrs</b>

3. Total years of experience

<b>a. &lt; one yr.</b>	<b>b. 1 to 5 yrs.</b>	<b>c. 6 to 10 yrs.</b>
<b>d. 11 to 15 yrs.</b>	<b>e. 16 to 20 yrs.</b>	<b>f. &gt;21 yrs</b>

4. Typically, how many **hours per week** do you work in this hospital?

<b>a. &lt; 20 hrs/wk.</b>	<b>b. 20-39 hrs/wk.</b>	<b>c. 40 to 59 hrs/wk.</b>
<b>d. 60-79 hrs/wk.</b>	<b>e. 80-99 hrs/wk.</b>	<b>f. &gt; 100 hrs/wk.</b>

5. How long have you worked in your current specialty or profession?

<b>a. &lt; one yr</b>	<b>b. 1 to 5 yrs.</b>	<b>c. 6 to 10 yrs.</b>
<b>d. 11 to 15 yrs.</b>	<b>e. 16 to 20 yrs.</b>	<b>f. &gt;21 yrs</b>

6. In your staff position, do you typically have direct interaction or contact with patients?
- Yes, I typically have direct interaction or contacts with patients
  - NO, I typically do NOT have direct interaction or contact with patients

<b>7. Gender</b>	<b>1. Male</b>
	<b>2. Female</b>
<b>8. Age in completed Years</b>	
<b>9. Marital status</b>	<b>1. Single (Never married)</b>
	<b>2. Married, separated, divorced, widowed....</b>
<b>10. Profession</b>	<b>1. Meical doctor</b>
	<b>2. Specialist</b>
	<b>Nurse</b>
	<b>Laboratory professional</b>
	<b>Pharmacy professional</b>
	<b>Radiology professional</b>
	<b>Public health officers</b>
	<b>Dentistry</b>
	<b>Other(specify)</b> ----- ---
<b>11. Level of education</b>	<b>Certificate</b>
	<b>Diploma</b>
	<b>Degree</b>
	<b>MSc or Mph</b>
	<b>MD +Speciality</b>
	<b>Phd</b>

**SECTION I: Your Comments**

Please feel free to write any comments about patient safety, error, or event reporting in your hospital.

**ANNEXURE E: TRANSLATED INFORMATION AND CONSETN FORM FOR PATIENTS**

በሕክምና ተቋም ውስጥ ተኝተው የሕክምና አገልግሎት የተደረገላቸው ሕመምተኞች በጥናትና ምርምር ውስጥ ለመሳተፍ ፈቃደኝነታቸውን የሚያረጋግጡበት ቅጽ

የጥናቱ ርዕስ:- በ አዲስ አበባ ውስጥ ያለውን የሆስፒታል አመራር ውጤታማነት ለማሻሻል የሚረዱ ስልቶችን መቀመጫ

የአጥኝው ስም: ዶ/ር የኔነህ ጌታቸው ኃይሌ

በዚህ ቃለመጠይቅ ለመሳተፍ ጊዜዎን ስለሰጡ እናመሰግናለን። እኔ ዶ/ር የኔነህ ጌታቸው ኃይሌ፣ ሳውዲ አፍሪካ ዩኒቨርሲቲ ሕዩማን ሳይንስ ኮሌጅ ውስጥ በጤና ምርምር የዶክተር አፍ ሊትሬቸር ኤንድ ፊሎሶፊ (PhD) ተማሪ ስሆን ጥናቴን ለማሟላት የምርምር ሥራ በመራት ላይ እገኛለሁ። የዚህ ጥናት ዓላማ የጤና አገልግሎት ጥራትን በቀጥታ (ወይም ጤና ባለሙያዎችን በሁለንተናዊ ዘርፍ በማጎልበት ፣ የሥራ እርካታ በመፍጠር፣ እና የበሽተኛን ደህንነት በማረጋገጥ በተዘዋዋሪ ) ለማሳደግ ሊረዱ የሚችሉ የሆስፒታል አመራር ውጤታማነት ለማሻሻል የሚጠቅሙ ስልቶችን ለማቅረብ ነው።

ተጨማሪ መረጃ ወይም ግልጽ ያልሆነለዎት ነገር ካለ ቃለ መጠይቅ አድራጊውን ይጠይቁ። ለመሳተፍ ወይም ላለመሳተፍ አስበውበት ይወስኑ። በቃለመጠይቅ አድራጊው(ዋ) አማካኝነት ለቀረቡት ጥያቄዎች ምላሽ ለመስጠት ጊዜዎን ስለሰጡን ከልብ እናመሰግናለን።

ይህንን ቃለ መጠይቅ በማድረግ ሊፈጠሩ የሚችሉ አደጋዎች : በዚህ የጥናት ዳሰሳ ውስጥ መሳተፍ ለአንዳችም ጉዳት አያጋልጥም። ይህንን በቃለመጠይቅ አድራጊ አማካኝነት የሚቀርብ መጠይቅ ለመሙላት 30 ደቂቃ ያህል ሊወስድ ይችላል።

ይህንን ቃለ መጠይቅ በማድረግ የሚገኝ ጥቅም: በዚህ ጥናት ውስጥ መሳተፍ ለተሳታፊው ቀጥተኛ ጥቅም አያስገኝም። ሆኖም ከዚህ ጥናት ውጤት የሚገኙ የሆስፒታል አመራር ውጤታማነትን ለማሻሻል የሚረዱ ስልቶች በአዲስ አበባ ባሉ ሆስፒታሎች ውስጥ የሚደረገውን የጤና ክብካቤ አገልግሎት ጥራት ለማሳደግ አስተዋጽኦ ያደርጋሉ።

ነጻነት: በማንኛውም ሰዓት በመጠይቁ መሳተፍዎን ማቋረጥ ቢፈልጉ፣ ማቋረጥ ይችላሉ። ነገር ግን የሚሰጡን መረጃ በሙሉ ለጥናታችን እጅግ አስፈላጊ ነው። ለመሳተፍ ወይም ላለመሳተፍ መወሰን የእርስዎ ድርሻ ነው። ለመሳተፍ ቢዋስኑ፣ ይህ የመረጃ ቅጽ ይሰጥዎት እንዲፈረሙ ይደረጋል። መሳተፍ ባይፈልጉ በማንኛውም ሰዓት ምክንያት እንዲያቀርቡ ሳይጠየቁ የማቋረጥ ነጻነትዎ የተጠበቀ ነው። ለመሳተፍ ፈቃደኛ አንዳችም ተጽእኖ የለውም።

ምስጢር መጠበቅ: በጥናቱ ወቅት ሥራዎን በተመለከተ የሚሰበሰቡ መረጃዎች በሙሉ በምስጢር ቁልፍ በተዘጋ የመረጃ ቋት ውስጥ በጥንቃቄ ተጠብቀው ይቆያሉ። የእርስዎን ማንነት የሚገልጹ መረጃዎች ከጥናት ማዕከሉ ወጥተው ይፋ በሚደረጉ ጊዜ ሁሉ ስምዎ ስለሚሰረዝ መረጃው ስለእርስዎ መሆኑ በፍጹም ሊታወቅ አይችልም።

ከላይ በስም የተጠቀሰው አጥኝ ወይም ወኪሉ የዚህን ጥናት ሒደት በሚገባ ከገለጸልዎ በኋላ ይህንን ቅጽ አንብበው ይፈረሙ።

1. ዶ/ር የኔነህ ጌታቸው ኃይሌ በሳውዲ አፍሪካ ዩኒቨርሲቲ ሕዩማን ሳይንስ ኮሌጅ የዶክተር ቴሲስ ለማሟላት በሚያከናውነው ጥናት ውስጥ ለመሳተፍ ተስማምቻለሁ። የዚህ ሰነድ ዓላማ ቃለመጠይቅ በመስጠት በፕሮጀክቱ ውስጥ የምሳተፍበትን ዝርዝር ሁኔታዎች ለመወሰን ነው።
2. ይህንን የጥናት ፕሮጀክት በተመለከተ በቂ መረጃ ተሰጥቶኛል። በዚህ ፕሮጀክት ውስጥ እንደ ቃለመጠይቅ ሰጭ የእኔ ተሳትፎ ዓላማ በግልጽ ተብራርቶልኛል፤ እኔም ገብቶኛል።
3. በዚህ ጥናት ውስጥ እንደ ቃለመጠይቅ ሰጭ የማደርገው ተሳትፎ በፈቃደኝነት ነው። እንደሳተፍ በግልጽም ሆነ በስውር የተደረገብኝ ጫና የለም።
4. ተሳትፎዬ በዋናው አጥኝ ወይም ዋናው አጥኝ በመረጠው ወኪል አማካኝነት ቃለመጠይቅ መስጠትን ያካትታል። ቃለመጠይቁ የ30 ደቂቃ ያህል ጊዜ ይፈጃል።
5. የፈለግሁትን ጥያቄ ያለመመለስ መብት አለኝ። ቃለመጠይቁ እየተካሄደ ሳለ በማንኛውም ሰዓት ደስ ባይለኝ ቃለመጠይቁን የማቋረጥ ነጻነት አለኝ።
6. እኔ ፈቃደኛ ካልሆንኩ በቀር ቃለመጠይቅ አድራጊው ከጥናቱ በኋላ በሚዘጋጁ ዘገባዎች ውስጥ በቃለመጠይቁ አማካኝነት የተገኙ መረጃዎችን በመጠቀም በስሜ ወይም በሥራዬ እንደማይጠቅሰኝ እንዲሁም በዚህ ጥናት ውስጥ የግል መረጃዎቼ

በምስጢር እንደሚጠበቁልኝ ሙሉ ዋስትና ተሰጥቶኛል። በሁሉም አጋጣሚ ተመዝግበው የተያዙ መረጃዎች አጠቃቀም በዩኒቨርሲቲ ኡቭ ሳውዝ አፍሪካ የመረጃዎች አጠቃቀም ፖሊሲ መሰረት ይወሰናል።

7. በዚህ ቅጽ ውስጥ የሰፈሩ ሃሳቦችን እና ነጥቦችን በሚገባ ተረድቻለሁ። ለጥያቄዎቼ በሙሉ አጥጋቢ መልስ ተሰጥቶኛል። እኔም በዚህ ጥናት ለመሳተፍ ፈቃደኝነቴን በፈርማዬ አረጋግጣለሁ።

ፊርማ: ..... ቀን: .....

የጥናቱን ዓላማ እና ጥናቱ ምን እንደሚጠይቅ በግልጽ አረጋግጣለሁ።

የአጥኝው/ተወካዩ ፊርማ: .....

ስም: .....

የሆስፒታሉ ስም-----

**ANNEXURE F: PATIENT EXPERIENCE OF QUALITY OF CARE QUESTIONNAIRE**

**የሆስፒታል ቆይታዎን በተመለከተ የሚከተሉትን የዳሰሳ ጥያቄዎች ይመልሱ**

<p><b><u>በነርሶች የተደረገልዎ እንክብካቤ</u></b></p> <p>1. በዚህ የሆስፒታል ቆይታዎ ምን ያህል ጊዜ ነው ነርሶች በጥንቃቄ እና በአክብሮት ያስተናግዳሉ?</p> <ol style="list-style-type: none"> <li>1. . በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p>2. በዚህ የሆስፒታል ቆይታዎ ምን ያህል ጊዜ ነው ነርሶች በጥንቃቄ ያደመጡዎ?</p> <ol style="list-style-type: none"> <li>1. . በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p>3. በዚህ የሆስፒታል ቆይታዎ ምን ያህል ጊዜ ነው ነርሶች ለእርሶ ግልጽ በሆነ መንገድ ነገሮችን ያስረዱዎ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p><b><u>በዶክተሮች የተደረገልዎ እንክብካቤ</u></b></p> <p>4. በዚህ የሆስፒታል ቆይታዎ ምን ያህል ጊዜ ነው ዶክተሮች በጥንቃቄ እና በአክብሮት ያስተናግዳሉ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol>	<p>5. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ዶክተሮች ምን ያህል ጊዜ ነው በጥንቃቄ ያደመጡዎ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p>6. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ምን ያህል ጊዜ ነው ዶክተሮች ለእርሶ ግልጽ በሆነ መንገድ ነገሮችን ያስረዱዎ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p><b><u>የሆስፒታሉ አካባቢያዊ ሁኔታ</u></b></p> <p>7. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ምን ያህል ጊዜ ነበር መኝታ ክፍልዎ እና መጻጻፊያ ቤትዎ የጸዳልዎ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol> <p>8. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ምን ያህል ጊዜ ነበር በመኝታዎ አካባቢ ያለው ቦታ በሌሊት ጸጥታ የተጠበቀልዎ?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol>
<p><b><u>በሆስፒታሉ ውስጥ የነበርዎ ቆይታ</u></b></p> <p>9. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ለሕመምዎ ማስታገሻ መድሃኒት አስፈልጎዎት ነበር?</p> <ol style="list-style-type: none"> <li>1. አስፈልጎኛል</li> <li>2. አላስፈልጎኝም &gt;&gt; አላስፈልጎኝም ካሉ ወደ12ኛ ጥያቄ ይሂዱ</li> </ol>	<p>13. አዲስ መድሃኒት ለእርሶ ከመስጠታቸው በፊት የሆስፒታሉ ሰራተኞች ምን ያህል ጊዜ ነው የመድሃኒቱን ጥቅም ግልጽ ባለ ሁኔታ ያስረዱዎት?</p> <ol style="list-style-type: none"> <li>1. በጭራሽ</li> <li>2. አልፎ አልፎ</li> <li>3. ብዙውን ጊዜ</li> <li>4. ሁልጊዜ</li> </ol>

10. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ ለሕመምዎ የሚገባ ማስታገሻ በሰአቱ አግኝተዋል?

1. በጭራሽ
2. አልፎ አልፎ
3. ብዙውን ጊዜ
4. ሁልጊዜ

11. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ የሆስፒታሉ ሰራተኞች ሕመምዎን ለማስታገስ ምን ያህል ጊዜ ነው አቅማቸውን ሳይቆጥቡ የሚችሉትን እርዳታ ያደረጉልዎ?

1. በጭራሽ
2. አልፎ አልፎ
3. ብዙውን ጊዜ
4. ሁልጊዜ

12. ሆስፒታሉ ውስጥ በነበርዎ ቆይታ ጊዜ በፊት ተጠቅመው የማያውቁት አዲስ መድሃኒት ታዘልዎት ነበር?

1. አዎ
2. አልታዘዘልኝም >> አልታዘዘልኝም ካሉ ወደ 15ኛ ጥያቄ ይሂዱ

**አጠቃላይ የሆስፒታል ምዘና**

በዚህ ሆስፒታል ውስጥ ስለነበርዎ ቆይታ የሚከተሉትን ጥያቄዎች ይመልሱ። በመልስዎ ውስጥ በሌላ ሆስፒታል ስለነበርዎ ቆይታ እንዳያነሱ።

17. ይህንን ሆስፒታል ሲመዘኑት 0 የመጨረሻ ዝቅተኛ ዋጋ ቢሆን 10 ደግሞ ከፍተኛ ዋጋ ቢሆን በሆስፒታሉ ስላሳለፉት ቆይታ ምን ያህል ዋጋ ይሰጣሉ?

- 0 እጅግ በጣም ብልሹ ሆስፒታል
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 እጅግ በጣም ጥሩ ሆስፒታል

14. አዲስ መድሃኒት ለእርሶ ከመስጠታቸው በፊት የሆስፒታሉ ሰራተኞች ምን ያህል ጊዜ ነው መድሃኑ ሊያስከትል የሚችለውን የሃንድ-ሽ ጉዳት እርስዎ ሊገባዎት በሚችል መንገድ ያስረዱዎ?

1. በጭራሽ
2. አልፎ አልፎ
3. ብዙውን ጊዜ
4. ሁልጊዜ

**ከሆስፒታሉ ከወጡ በኋላ**

15. ሆስፒታሉ ውስጥ በቆዩበት ጊዜ ከዶክተሮች፣ ከነርሶች ወይም ከሌሎች የሆስፒታሉ ሰራተኞች እርስዎ ሆስፒታሉን ለቅቀው ከወጡ በኋላ የሚያስፈልግዎን ድጋፍ ሊያገኙ እንደሚችሉ የነገርዎት አለ?

1. አለ
2. የለም

16. ሆስፒታሉ ውስጥ በቆዩበት ጊዜ ምን አይነት የበሽታ ምልክቶችን ወይም የጤና መታዎክ ለይተው ማወቅና ክትትል ማድረግ እንዳለብዎ ግልጽ በሆነ መንገድ ማብራሪያ አግኝተዋል?

1. አግኝቻለው
2. አላገኘሁም

**ሆስፒታሉ ሲወጡ ስላለዎት የጤና ችግር የነበረዎት ግንዛቤ**

19. ሆስፒታሉ ውስጥ በቆየሁበት ጊዜ፤ የሆስፒታሉ ሰራተኞች ከሆስፒታሉ ከወጣሁ በኋላ ምን አይነት የጤና እንክብካቤ እንደሚያስፈልገኝ ሲወስኑ የእኔን እና የቤተሰቦቼን ወይም የአስታማሚዎቼን ምርጫ ከግምት አስገብተዋል።

1. በፍጹም አልስማማም
2. አልስማማም
3. እስማማለሁ
4. በጣም እስማማለሁ

20. ከሆስፒታሉ ስወጣ ጤናዬን ለመጠበቅ ምን ማድረግ እንደሚጠበቅብኝ በሚገባ ተረድቻለሁ።

1. በፍጹም አልስማማም
2. አልስማማም
3. እስማማለሁ
4. በጣም እስማማለሁ

21. ከሆስፒታሉ ስወጣ እያንዳንዱን መድሃኒት ለምን እንደምወስድ በቂ ግንዛቤ አግኝቻለሁ።

1. በፍጹም አልስማማም

18. ይህንን ሆስፒታል ጥሩ ነው ብለው ለጓደኛ ወይም ለቤተሰብዎ ይጠቁማሉ?

- 1. በፍጹም አልጠቁምም
- 2. የምጠቁም አይመስለኝም
- 3. የምጠቁም ይመስለኛል
- 4. በሙሉ ልቤ እጠቁማለሁ

23. በአጠቃላይ ጤናዎ እንዴት ነው?

- 1. እጅግ በጣም ጥሩ
- 2. በጣም ጥሩ
- 3. ጥሩ
- 4. ምንም አይል
- 5. ጥሩ አይደለም

24. በአጠቃላይ አእምሮአዊ እና ስሜታዊ ጤናዎን እንዴት ያዩታል?

- 1. እጅግ በጣም ጥሩ
- 2. በጣም ጥሩ
- 3. ጥሩ
- 4. ምንም አይል
- 5. ጥሩ አይደለም

25. እዚህ ሆስፒታል ውስጥ ሲታከሙ የመጀመሪያዎ ነው?

- 1. አዎ
- 2. አይደለም
- 3. እርግጠኛ አይደለሁም

26. በሆስፒታሉ ውስጥ ስንት ቀን አሳለፉ?

-----

27. በሆስፒታሉ ውስጥ ለቆዩባቸው ቀናት ክፍያ ተጠይቀዋል?

- 2. አልስማማም
- 3. እስማማለሁ
- 4. በጣም እስማማለሁ
- 5. ከሆስፒታሉ ስወጣ ምንም አይነት መድሃኒት አልተሰጠኝም

**እርስዎን በተመለከተ**

22. ሆስፒታሉ ውስጥ በቆዩበት ጊዜ የትኛው የህክምና ክፍል ነበር የገቡት?

- 1. የውስጥ ደዌ ህክምና
- 2. የቀዶ ጥገና ክፍል
- 3. የማህፀን ህክምና ክፍል
- 4. ሌላ .....

29. የቀለም ትምህርት እስከ ስንተኛ ክፍል ወይም እስከ ስንተኛ ደረጃ ድረስ ተምረዋል?

- 1. አልተማርኩም
- 2. ማንበብና መጻፍ እችላለሁ እንጂ አልተማርኩም
- 3. እስከ 8ኛ ወይም ከዚያ በታች
- 4. ሁለተኛ ደረጃ (9-12)
- 5. ሰርተፊኬት/ዲፕሎማ
- 6. የ4 ዓመት ኮሌጅ ምሩቅ
- 7. ሁለተኛ ዲግሪ/ሦስተኛ ዲግሪ

30. ጾታ-----

31. ዕድሜ-----

32. የትዳር ሁኔታ

- 1. ላጤ ነኝ
- 2. ባለትዳር ነኝ
- 3. ፈትቻለሁ/ተለያይቻለሁ

33. ሐይማኖት

- 1. ኦርቶዶክስ ክርስቲያን
- 2. ሙስሊም
- 3. ካቶሊክ
- 4. ፕሮቴስታንት
- 5. ሌላ-----

<p>1. . ተጠይቆያለው</p> <p>2. አልተጠየቅሁም &gt;&gt; አልተጠየቅሁም ካሉ ወደ 29ኛው ጥያቄ ይሂዱ</p> <p><b>28. ለሆስፒታል ቆይታዎ የከፈሉት ዋጋ በጣም በዝቅተኛ ጠለው ያስባሉ?</b></p> <p>1. . አዎ በዝቅተኛ</p> <p>2. አልበዛም</p>	
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**ANNEXURE G: MULTIFACTOR LEADERSHIP QUESTIONNAIRE LEADER FORM**

## ANNEX H: INTERVIEW GUIDE FOR KEY INFORMAN INTERVIEWS, ENGLISH FORM

### Question Guide

Name-----

Date-----

Organization -----

Current position-----

Phone-----

#### **I. General perceptions of hospitals (both private and public in Addis Ababa)**

1. What do you think of the current situations of hospitals (both public and Private) in Addis Ababa?
2. What do you think about the prevailing situations in the areas of
  - a) Hospital leadership
  - b) Quality of health care rendered in hospitals (especially quality of health care in hospitals)
  - c) Health workers' general job satisfaction
  - d) Health workers' empowerment
  - e) Patient safety culture

#### **II. Challenges**

3. In your opinion, what are the critical challenges in the following areas:
  - a) Providing quality of health care in hospitals
  - b) Effectively managing/ leading hospitals
  - c) Improving health worker satisfaction and empowerment
  - d) In improving patient safety culture
4. In your opinion, what is/are the most important challenges of hospital leadership in general?

#### **III. Determinants of effective hospital leadership?**

5. Do you think hospital leadership determines quality of health care given in hospitals? If so in what way?
6. Do you think hospital leaders could affect the level of health workers' satisfaction and empowerment? If so in what way?
7. In your opinion in what way hospital leadership could affect hospital patient safety culture?
8. In your opinion, what are the most important determinant factors in improving hospital leadership?

#### **IV. Strategies to improve hospital leadership, health workers' general satisfaction and commitment**

9. What should hospitals do to improve
  - a) Health workers' general satisfaction and empowerment?
  - b) Hospital patient safety culture
  - c) Hospital experience of hospital quality

10. In general, what should be done to improve hospital leadership effectiveness?
11. General recommendations to improve hospital services in Ethiopia?
12. Is there anything that you would like to share, that we might have missed out?

**Your contributions are highly appreciated. Thank you**

**ANNEX I: INTERVIEW GUIDE FOR KEY INFORMAN INTERVIEWS, AMHARIC FORM**

በአዲስ አበባ የሚገኙ የግል እና የመንግስት ሆስፒታሎችን የአመራር ውጤታማነትን ለማሻሻል እና ስትራቴጂ ለመንደፍ የሚያግዝ የቁልፍ መረጃ ሰጪ ቃለ መጠየቅ

የቃለ-መጠይቁ መምሪያ

ሀ. ስለ እርስዎ ግላዊ መረጃ

ስም-----

ቀን-----

የመስሪያ ቤቱ ስም-----

አሁን የሚሰሩበት ሃላፊነት-----

ስ.ቁ-----

ለ. አጠቃላይ ስለሆስፒታሎቹ ያለዎት እይታ እና ተግዳሮቶች

1. በአ.አ የሚገኙ የግል እና የመንግስት ሆስፒታሎች በአጠቃላይ ያሉበት ሁኔታ ምን ይመስላል?
2. በነዚህ ሆስፒታሎች በሚከተሉት አንጻር ነጥቦች ያለው ሁኔታ ቢገልጹልን?
  1. በሆስፒታል አመራር (hospital leadership)
  2. በሆስፒታሎቹ የሚሰጠውን የጤና አገልግሎት ጥራት
  3. የጤና ባለሙያዎች ጠቅላላ የስራ እርካታ (General job satisfaction)
  4. የጤና ባለሙያዎች አጠቃላይ የስነ ልቦና እንዲሁም በመዋቅር የተደገፈ ሁለንተናዊ ተሳትፎ እና አቅም ግንባታ (Psychological and structural empowerment)
  5. በሆስፒታሎች ያለው የታካሚ ደህንነት አጠባበቅ ባህል(Patient safety culture)
  6. በእርስዎ አስተያየት በ አ.አ በሚገኙ የግል እና የመንግስት ሆስፒታሎች ውስጥ ያለውን አመራር ውጤታማነት ለማሻሻል ማነቁ የሆኑ ነገሮች ምንድን ናቸው ?

መ. በ አ.አ የሚገኙ የሆስፒታሎችን አመራር፣ የጤና አገልግሎት ጥራት ፣አጠቃላይ የጤና ባለሙያዎች እርካታ፣ አጠቃላይ የስነ ልቦና እና መዋቅራዊ ሁለንተናዊ ተሳትፎ እና አቅም ግንባታ፣ የታካሚ ደህንነት አጠባበቅ ባህል ለማሻሻል የሚረዱ ስልቶች

1. በእርስዎ አስተያየት የሚከተሉትን ዋና ዋና ነጥቦችን ለማሻሻል ምን እንዲደረግ ይመክራሉ?
  1. የሆስፒታሎችን የጤና አገልግሎት ጥራትን ለማሻሻል?
  2. አጠቃላይ የጤና ባለሙያዎች እርካታን ለማሻሻል?
  3. አጠቃላይ የስነ ልቦና እንዲሁም በመዋቅር የተደገፈ ሁለንተናዊ ተሳትፎ እና አቅም ግንባታን ለማሻሻል?
  4. የታካሚ ደህንነት አጠባበቅ ባህልን ለማሻሻል?

ሠ.የሆስፒታል አመራር ውጤታማነት ማሻሻል

1. በአጠቃላይ የሆስፒታል አመራር ውጤታማነትን ለማሻሻል ምን እንዲደረግ ይመክራሉ?
2. በአጠቃላይ የሆስፒታል አገልግሎትን ለማሻሻል ምን እንዲደረግ ይመክራሉ?
3. ለመጨመር የሚፈልጉት ወይም ከላይ ያልተነሳ ነገር ግን አንገብጋቢ ነው የሚሉት ካለ?

ስለቃለ መጠየቁ አመሰግናለሁ

## ANNEX J: PROOF READING AND EDITING CONFIRMATION PAPER

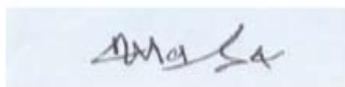
From : I. Manase (PhD UKZN)  
Department of English  
University of the Free State  
Bloemfontein

Date : 09 September 2019

Confirmation of proofreading and editing of Dr. Yeneneh Getacehw Haile's PhD thesis titled: "Strategies to improve effectiveness of hospital leadership in Addis Ababa"

This serves to confirm that I have proofread and edited Dr. Yeneneh Getacehw Haile's above-mentioned Doctoral thesis. The suggested sentence and language construction changes have been attended to, and as such, the thesis is ready for submission for examination.

Sincerely,



Email: [Manasel@ufs.ac.za](mailto:Manasel@ufs.ac.za) / [irimanase@gmail.com](mailto:irimanase@gmail.com)

## ANNEX K: TURNITIN ORIGINALITY REPORT

### Turnitin Originality Report

Processed on: 22-Sep-2019 16:15 SAST

ID: 1177390222

Word Count: 85367

Submitted: 1

STRATEGIES TO IMPROVE EFFECTIVENESS OF HOSPITAL  
LEADERSHIP IN ADDIS ABABA By Yeneneh Haile

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