UNICAF UNIVERSITY

MASTER OF SCIENCE IN HEALTHCARE MANAGEMENT

DISSERTATION TITLE: How Hospital Management Operational & Strategic Skills Affect Health Care Output Quality

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V. Abbreviations

LMICs	-	Low – and Middle – Income Countries
QP	-	Quality Performance
SDA	-	Secondary Data Analysis
TQM	-	Total Quality Management
WHO	-	World Health Organization
US$	-	United States of America dollar Currency

VI. Abstract

The paper examines the extent to which operational and strategic planning skills of managers affect the quality of healthcare outputs. The healthcare output measurables include mortality and morbity rates. Poor healthcare output quality translates to high morbidity and mortality rates. Managers being designers of organizational structures and developers of policies and procedures and processes, the depth and width of their knowledge on the subject may affect the outcomes either positively or negatively. From a study of five, it is reasonable to generalise that the management skills affect the healthcare output quality. Managers with good operational and strategic plannings skills can better develop and monitor and evaluate their processes for better healthcare output quality. Such managers can better receive feedback and utilize it for continual improvement of their services. Managers with operational and strategic skills can better decide on such factors as organizational culture, leadership style, organizational designs and information management that best suit the organizational needs and abilities for best outcome results.

1. Introduction

WHO, 2020 defines quality of healthcare as "*is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with evidence-based professional knowledge."* The timely reception of the patient, understanding their needs and their state of being; including that of their significant others, the appropriate assessments and ultimate accurate diagnosis and appropriate, client centred management plan with cost consideration is what the client needs when visiting a health facility for services.

Health care quality seem to be one of the neglected aspects of the healthcare service spectrum. Most health facility managers assume that timely health services delivery translates to quality services. This often leads to patients and clients receiving substandard health care services in time leading to poor outcomes. This result in them visiting the health facility too often and standing the risk of drug over use. This translate to high medical bills on the side of the customer and the facility being mistaken for a busy facility due to frequent hospital visits by users. Zuckerman, (unknown) states that strategic plan in healthcare seem to have failed to evolve to match the standard outside the healthcare sector.

Failing to understand what quality healthcare services are by management makes it difficult to monitor and evaluate the services. Having healthcare services that are effective, safe, client-centred, timely, equitable, integrated, and efficient are what translate to quality healthcare services. Missing any of these characteristics of quality care disadvantages the recipients. The greatest question is how great the impact of limited understanding by management is, more especially operational managers (those assigned to monitor the healthcare output) on the facilities' clients.

Lack of medical background by strategic and/or operational managers of health facilities limits their health care strategic planning. Having health professionals who know and/or understand little about strategic planning and operational management creates a gap for strategic developments and monitoring their implementation. In Botswana, strategic planers/managers seat at the national level and healthcare professionals are expected to monitor and implement strategies at district level. The hospital manager (clinical) seat at the referral hospitals (being the highest hospitals

in the country) while hospital managers (finance and administration) at district level who would otherwise understand strategies have little influence on medical matters such as monitoring healthcare outputs. They are rather charged with the responsibility to ensure that the hospital administration runs smoothly.

Butler *et al*, (1996) states that there is not enough research on integrating operational management and strategic planning in healthcare. This communicates that there is a gap between operations and strategic planning within the health sector. This brings about the question of whether the poor quality of health services delivery in hospitals is brought about by lack of medical knowledge of managers or lack of integration of the strategic planning and operational management. The practice in Botswana is that strategic planners/managers develop the national health strategy and present it to the operational managers and leave them to run with it.

Healthcare services are offered by human being in collaboration with machines, most of which are operated by humans. This brings in the possibility of human errors compromising the quality of services offered. Factors such as skill, attentiveness, fatigue, attitude, accuracy, literacy affects human outputs in their daily work hence compromising the quality of services. Carayon *et al*, (2014) acknowledges that human factors compromise health care services quality and patients' safety.

Acknowledging all the challenges that maybe there that may compromise the quality of health care services, in this research, I intend to investigate

"How hospital managers' strategic and operational management skills can affect the quality of health care services delivered."

To improve health care quality, this research strives to identify the obstacles at management level that can hinder healthcare output quality within a hospital. Reporting or complaining about health care quality to management that does not understand it, or its importance cannot benefit the users or the health facility. On the other hand, complaining about health care quality to a management that understands and appreciates its value will greatly help both the facility and its user to improve the services.

2.0 Methodological Approach of Literature Review

Healthcare services aims at improving the health status of individuals with compromised health status. The healthcare needs differ with individuals' different health needs. Health needs may be psychological, physical, social, or physiological. According to Kelly *et al* (2005), healthcare quality is the art of ministering the right intervention at the right time in the right way for the right client and having the best results possible. The main thing about healthcare services is having the best results possible and this has been a challenge almost all around the world.

Despite numerous research conducted through different methods around the world, there continue to be a decline in the health care quality. Glickman *et al,* (2007) sited that, a decline in health care quality is a universal concern but the road to get to better healthcare quality is not well understood by all. Managers continue to try different strategies to achieve better healthcare service. In most cases management blames the implementors for the poor quality of healthcare, failing to objectively evaluate their policies and their input into the processes as management. Glickman *et al*, (2007) stated that Avedis Donabedian, who is an expert in the field of healthcare quality, developed a framework to guide an effective quality improvement effort. This framework emphasizes that, first there are organizational attributes (structure), that directly influences and/or determines the medical processes inputs that determines the medical outcomes/outputs. If the organizational attributes are wrong, then we are assured of poor outcomes. Diagram 1 below depicts the flow of the process as adopted from Glickman *et al,* (2007).

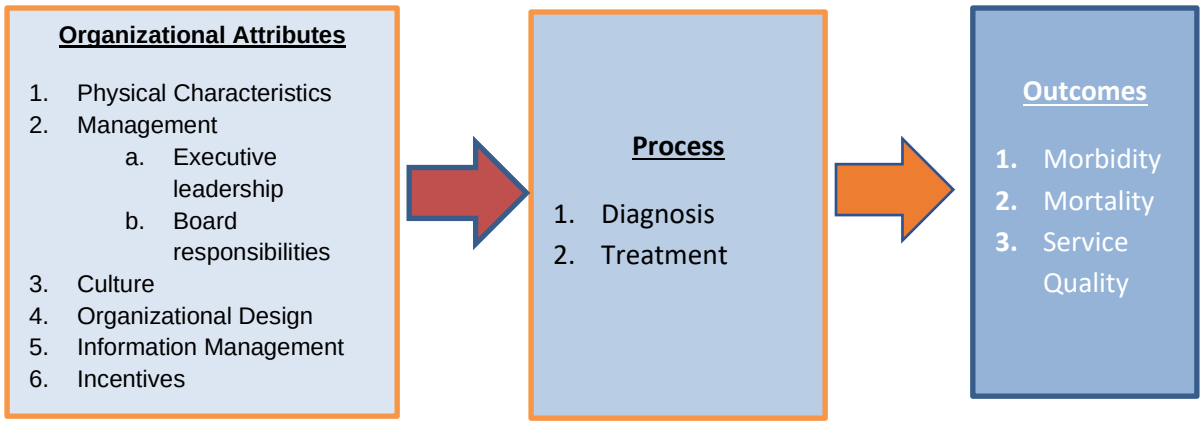


Diagram 1

Considering the flow diagram 1, it is apparent that when organizational attributes are functioning well in support of healthcare quality, the processes will be well developed and informed and will give desired outcomes.

The organizational attributes define policies, procedures, personnel qualifications, specialties needed, renumerations, suppliers, the target population, the systems, and machinery to be used within the health center and the general portfolios of every professional. These, being the inputs into the process determines the process outputs. The organizational attributes set and decides on the system outputs.

Nembhard *et al*, (2009), also acknowledges that the United States of America health system was found to have healthcare quality crisis in 1999 and efforts have been developed and implemented to address the crisis. Nembhard *et al,* (2009) further elaborates that their analysis points out to repeated strategies implementation failures. Taking into consideration diagram 1, we can deduce that process failure is mainly due to organization attributes.

Andel *et al,* (2012) indicates that for three decades, the health care system has been struggling with healthcare quality and cost saving. Andel *et al*, (2012) further states that strategies were presented to facilities' management, and the managements that received the strategies, overcame their fears, and correctly experienced drastic quality improvements. Some managers failed to overcome their fears, some failed to accept the strategies and their organizations are still struggling with healthcare quality.

Mosadeghrad, (2014) acknowledged the achievements of the ministry of Health in Iran, he however, also stated that the sector is struggling with serious challenges more especially health outcomes; quality, and efficiency. Mosadeghrad, (2014) highlights the need for a better understanding of healthcare quality to improve healthcare services delivered.

Leadership style embraced by hospital management plays an important role in influencing the processes and ultimately the outcomes. The leadership styles include task-focused, formal leadership and informal leadership. A study by Sfantou *et al*, (2017) demonstrated that indeed leadership style affects the outcomes and quality. A manager who pays attention to what his staff is doing can better guide and correct

their team in time. Formal leadership positively influences outcomes whereas informal leadership plays no role in the outcomes.

WHO, (2020) states that about 60% of the deaths in low- and middle-income countries (LMICs) are attributed to poor health care quality. This communicates to the high need for more research to identify where we could be missing the point. It is important to note that any initiative that the management does not value or support can never be fruitful in any organization. WHO, (2020) further states that LMICs incur annual financial losses of between US$1.4 and 1.6 trillion due to poor health quality. Considering that more than half of the people that die per year should otherwise be alive, and more money is lost in productivity, all due to poor health care quality, this calls for more research on how to improve the health care quality and save lives. In developed countries, WHO, (2020) records that, 10% of the patients is harmed while receiving healthcare services and 0.7% of the admitted patients is expected to develop hospital acquired diseases. All these are due to poor quality of health care service. Conducting research on the influence of management in health care quality is therefore a high priority, taking into consideration aspects such as the management skills, their support, monitoring and appreciation for policies supporting improvement of healthcare quality and the effects of leadership style in healthcare quality.

2.1 Summary

The data from previous research indicates that organizational management is the beginning of every organizational process and have direct influence on the quality of healthcare services. Research further demonstrates that the health sector is still struggling with healthcare outcomes signified by high mortality and morbidity rates. Acknowledging other challenges to healthcare quality, it is important to assess for obstacles within the organizational attributes that hinder healthcare quality. It is the management that when impowered can identify and resolve all other limitations within the system.

3. Aims and Objectives

This research seeks to address the following objectives.

a) Establish how lack of understand of health care quality by hospital/health center managers affects quality of healthcare services delivered
b) Establish how management understanding of strategic and operational management influences health quality policy development and implementation.
c) Evaluate the response of the management about health quality complaints from users
d) Evaluate how management style affects healthcare quality
e) Assess how health care costs affect health care quality from a management perspective

3.1 Research Hypothesis

This is casual research, and the hypothesis aims to establish the relation of the hospital leaderships knowledge and health care quality to establishes;

i. If hospital management that understands strategic and operational management improves the health care services quality and reduce mortality, morbidity and improve quality of services
ii. If managers that understands the values of health quality will support development and implementation of health quality policies and procedures will give better medical treatment outcomes
iii. If hospital management leadership strategy can help improve health care output quality.

3.2 Conditions and Limitations

As a secondary study, the research will entirely depend on data available online. Any data that has not been captured in any study with the healthcare sector will not be used in this study. This research will only focus on articles/journals released from the years 2021 to date and written in English language.

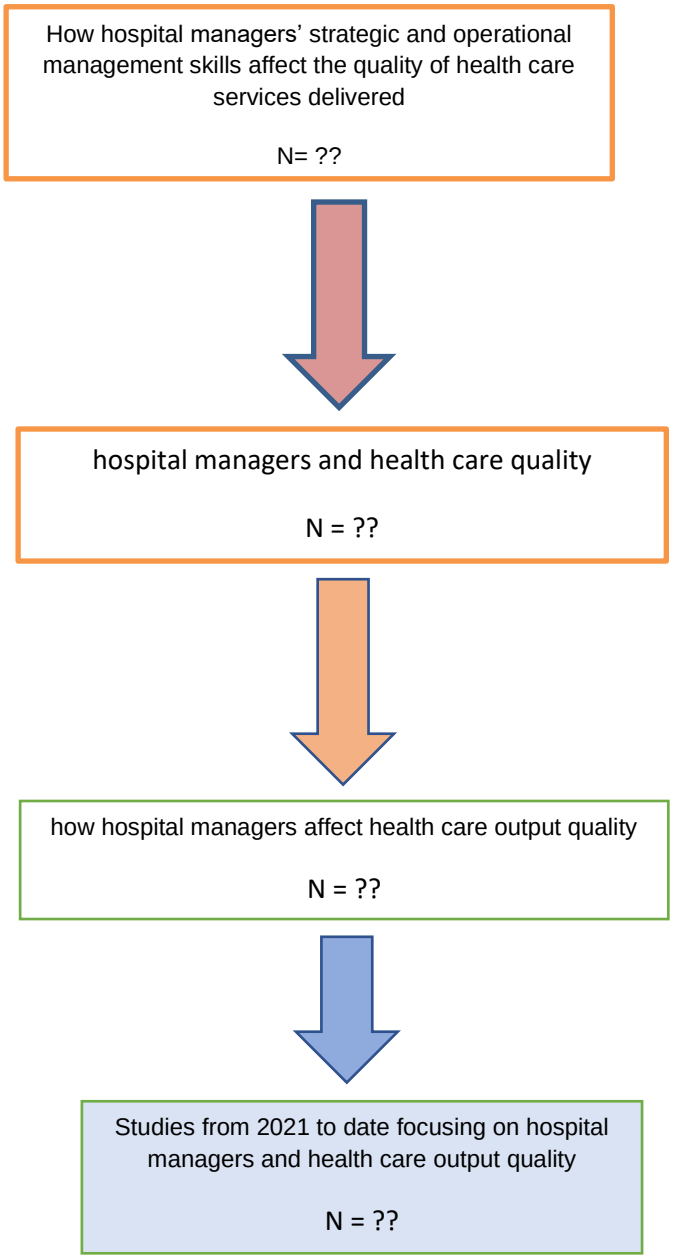
4. Material And Method

This section of the dissertation is characterised by explanations of how the research will carried out, where the data and/or information will be collected from and the data gathering technique that will be used. In this secondary research, the data that I will collect is the data that have been collected and used by other researchers in their projects. McCombes, (2019) supports this as she states that secondary data is the data that has been collected and used.

The data to be collected in the research is qualitative. According to Bhandari, (2020) qualitative research means analysing text, videos and/or audios which are not numbers to understand opinions, concepts, or experiences. The qualitative data will be collected online from a couple of databases including PubMed, google scholar, and Cochrane Library. The reason for the choice of reviewing qualitative data is to narrow the focus on management role which was one of the findings and recommendation in numerous primary studies as I am convinced that the role of management in ensuring health quality improvement was overlooked. This is supported by Ruggiano & Perry, (2017) as they state that secondary data analysis (SDA) may focus on a point that might not have sufficiently been analysed in the primary analysis.

4.1Data Collection Procedure

Data will be collected from the data basis with the same phrases. The phrase will be “How hospital managers’ strategic and operational management skills affect the quality of health care services delivered.” Following the findings, the phrase will be changed to read “hospital managers and health care quality” and finally “how hospital managers affect the healthcare output quality”. The studies that would be found will now be limited by the year of study – from 2021 to date. At this point, I will only focus on studies that were focusing on healthcare quality and not necessarily all health care outputs and/or any other variable. Diagram 2 depicts the flow of data collection from all databases.



From the final articles selection will be the ones that will be critically analyzed for the effect of management's strategic and operational skills on healthcare quality. All the effects, negative neutral or positive effects will be analyzed and documented.

4.2Research Design

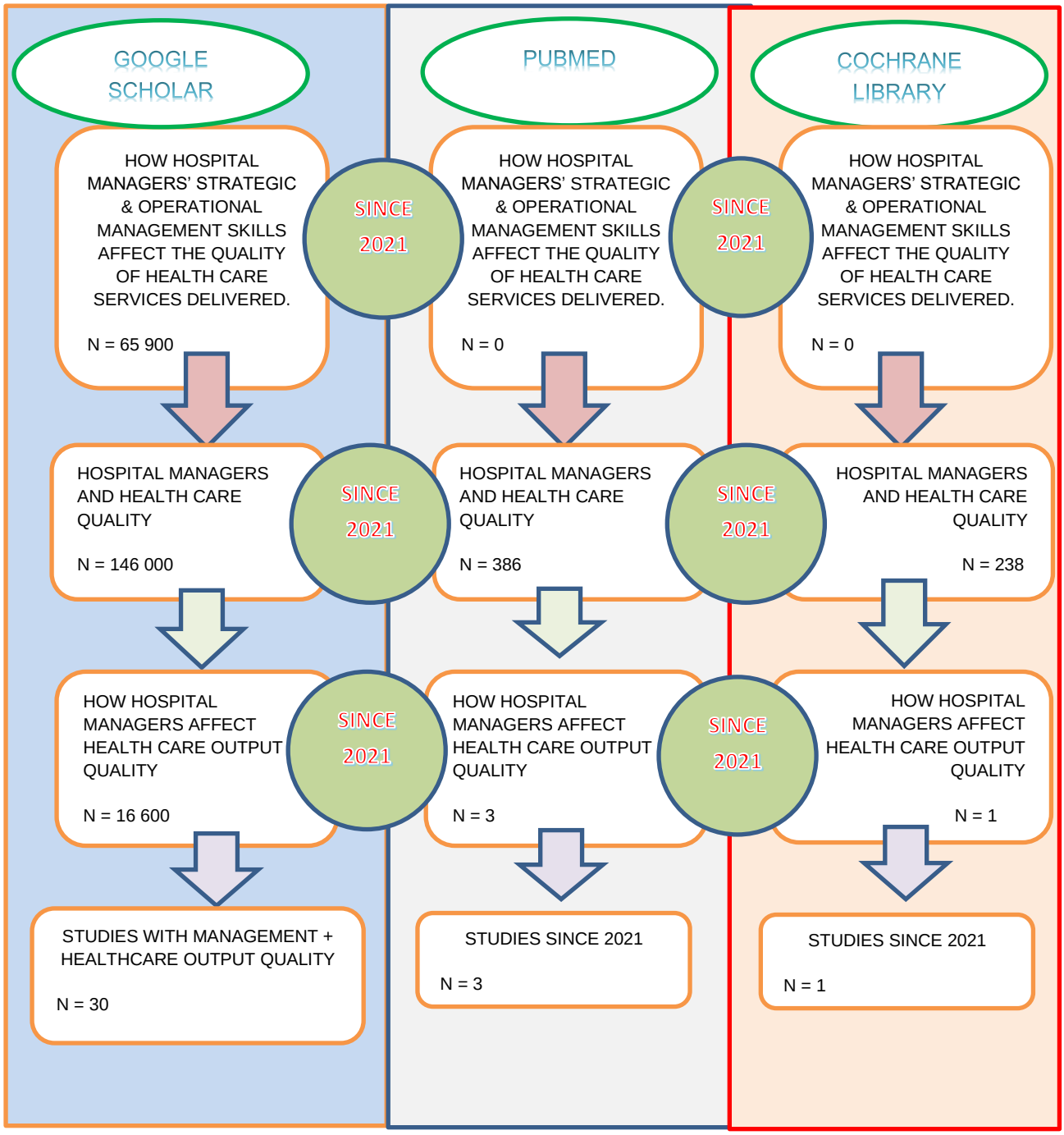
Research design is where the method or way of answering the research question using evidence is outlined. McCombes, (2021) defines research design as the strategy for answering research problem with evidence-based data. In this research, the independent variable will be the patients on whom the services are

offered to. The dependent variable will be the healthcare quality. The skill (operational and strategic) of the hospital leadership has no influence on the patients but directly affects the health care outcomes (healthcare quality). The healthcare output (healthcare quality) is measured by the health status of the patients at the end of the medical treatment process. In other words, the reaction of patients and/or their response to medical treatment communicates the quality of healthcare services.

4.3 Ethical Issues

Using data that was collected by someone else has a lot of ethics attached to it as it reduces the burden of being asked the same questions again by another group of researchers. Data big & small, (2015) agrees with this statement and further states that this maximizes the value of any public investment in data collection. Great transparency of research procedures and integrity of research work. It is important to note that the value of secondary data is fully achieved when the benefits outweigh the risks of particularly that of disclosure of sensitive information. The most important ethical conditions that must be met include that data must be de-identified before release to the researcher, the outcomes of the analysis must not allow re-identification of participants and this data's use must not result in any damage or distress.

5. Findings



Flow diagram 3 shows how data was collected online from three data base sources.

The journals from the google scholar search engine were further analysed on the bases on the content of the journals – articles with either how management decisions affect the efficiency of health professionals in implementing the health

procedures and health processes and how that affects the health outcomes, particularly health quality.

5.1 Case # 1

Ravaghi *et al,* (2020), noted that selecting appropriate and relevant training methods and proper assessment of their impact on the outcomes is very key. Ravaghi *et al,* (2020) further stated that identifying and filing the knowledge gap of managers can be very instrumental in improving the effectiveness and efficiency of the system under review. In their review, Ravaghi *et al,* (2020) focused on how training managers on three groups of skills, being: technical, interpersonal, and conceptual skills of managers. Their findings were that trainings focusing on technical skills (strategic and operational planning) bore more positive results than trainings on other skills.

5.2 Case # 2

Alshourah, (2021) states several reasons that makes healthcare delivery a challenge in this century, and they include competitiveness, complexity of care, ever changing environment of operation, sophistication of leaders, suppliers, and the workforce. Alshourah, (2021) also states that it is always necessary to implement Total Quality Management (TQM) in hospitals and healthcare centers as it will assist the institution to recognize customer needs, set standards for best practices and how to improve processes of providing suitable care and reducing the severity of medical errors. Alshourah, (2021) suggests that the implementation of TQM increases the potential achieving high quality care, which translates to improved patient satisfaction, improved employee morale, better productivity and running a profitable healthcare service center. Alshourah, (2021) also states that hospital managers have increasingly applied TQM dimensions to improve the quality and efficiency in hospitals.

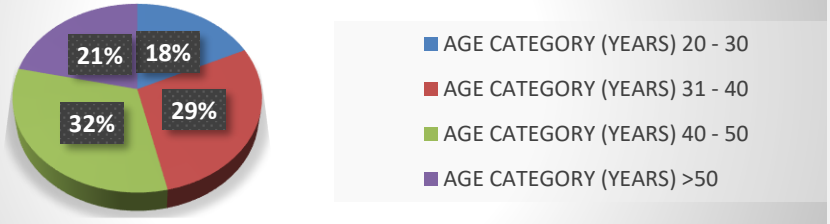
In Alshourah, (2021) study, there were one hundred and forty respondents (140). Alshourah, (2021) grouped the respondents in to four groups which were according to age, management position, work experience and educational qualification. Table 1 below gives the distribution of the respondents according to categories.

AGE CATEGORY (YEARS)			
20 – 30	31 – 40	40 – 50	>50
25	40	45	30
MANAGEMENT POSITION			
LEAGERSHIP	MIDDLE MANAGEMENT	SENIOR STAFF	OTHERS
25	40	60	15
EDUCATIONAL QUALIFICATION			
DIPLOMA	BACHELORS	MASTERS	PhD
19	70	40	11
WORK EXPERIENCE (YEARS)			
<5	>5		
63	77		

Table 1 showing the distribution of participants according to categories of work experience, educational level, managerial positions, and age.

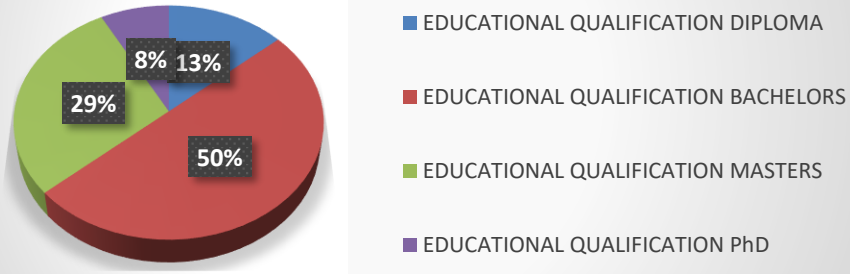
Diagram 4 on page 18 summarizes the information on table 1 in pie charts format of the distribution of the respondents.

AGE CATEGORY (YEARS)



Management Position

Educational Qualification



Work Experience (Years)

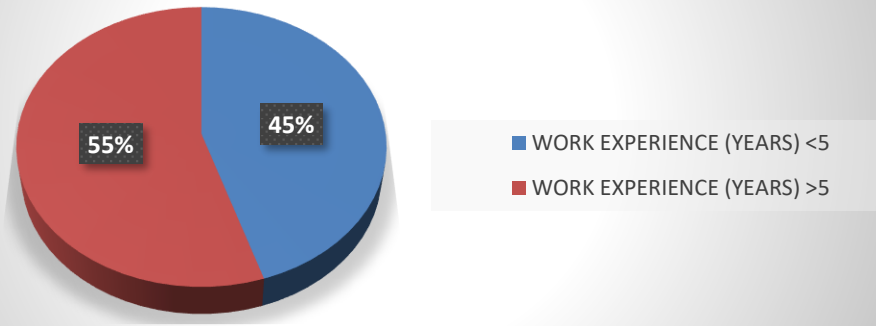


Table 2 below gives the responses to the variables in descriptive statistics format as provided by Alshourah, (2021). The scores are classified as low, medium, or high. Any score below 2.33 which is obtained by four divided by three then add one which is the minimum score possible (4/3+1) is classified as low. The highest score is five minus four divided by three (5-4/3) which is anything equivalent to and/or above 3.67. scores between 2.33 and 3.66 are classified as medium.

DIMENSIONS	MEAN	STD. DEV.
Quality Performance	3.19	0.8
Leadership Commitment & Support to Quality	3.68	0.62
Quality Strategic Planning	3.90	0.74
Training & Participation	4.41	0.56
Information & Data	3.82	0.65
Process Management	3.87	0.82
Supplier Quality Management	3.99	0.68
Customer Focus	3.72	0.85
Continuous Improvement	3.80	0.59

According to Alshourah, (2021), the results communicated that the level of TQM is high, according to managers with a mean score of 3.92, communicating that, managers have high consideration for TQM to improve customer service quality.

Alshourah, (2021) used the linear-Regression analysis to evaluate the relationship between dimensions of TQM and performance from quality standpoint. Alshourah, (2021) used table 3 to summarise the relationship between TQM and quality Performance (QP) which displayed that the relationship is significant (F = 33.807; Sig = 00). Alshourah, (2021) found that dimensions of TQM are responsible for 73% of the variations in QP. Leadership Commitment and Support to Quality, Quality

Strategic Planning, Information and Data, Management of Process, Customer Focus, and Continuous Improvement are key dimensions of the TQM that greatly influence and are predictors of QP.

Table 3 below communicates the relationship between TQM and QP as adopted from Alshourah, (2021).

MODEL	UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS		COLLINEARY STATISTICS		
	B	STD ERROR	BETA	T	SIG	TOLERANCE	VIF
Constant	275	304	-	904	386	-	-
Leadership Commitment & Support to Quality	0.160	0.060	0.211	2.682	0.009	0.521	1.920
Quality Strategic Planning	0.396	94	0.434	4.234	0.000	0.307	3.252
Training & Participation	0.047	0.098	0.045	0.481	0.000	0.371	2.694
Information & Data	159	0.092	0.146	1.717	0.003	0.450	2.222
Process Management	0.328	80	0.392	4.091	0.324	0.352	2.842
Supplier Quality Management	0.082	0.110	-0.330	-0.749	0.456	0.238	4.199
Customer Focus	0.178	0.056	0.243	3.167	0.002	0.549	1.823
Continuous Improvement	346	82	0.423	3.453	0.001	0.536	3.732

DV= QP, R= 0.848 (a), R= 0.73, F= 33.807, Sig= 0.00, Note; Sig levels, *** **p<0.01, *p<0.05

5.3 Case # 3

Mosadeghrad, (2020) states that hospital accreditation has been perceived as a strategy to assess hospital performance and accordingly improve health care quality and safety. Mosadeghrad, (2020) further notes that policy makers and hospital managers who wish to have the most competitive hospital advocate for hospital accreditation as it motivates them to develop policies of continuous improvement and implement such. Mosadeghrad, (2020) states that although hospital accreditation used to be a tool for private hospitals, some governments have seen it necessary to initiate hospital accreditation in public health facilities due to growing concerns of increased medical errors and unsafe practices. Mosadeghrad, (2020) notes that

hospital accreditation literature review revel mixed results, some suggesting that it is an important tool that can improve healthcare services quality, reduce hospital acquired infections and medical errors.

5.4 Case # 4

Specchia *et al,* (2021) states that studies have shown that managers' approach and their leadership style have the potential to staff performance and healthcare system metrics. Specchia *et al*, (2021) outlines seven (7) leadership styles that managers use. They are transformational, transactional, laisses-faire, servant, resonant, passive-avoidant, and authentic leadership styles. Table a show the number of studies that Specchia *et al,* (2021) reviewed and the effects they communicated on job satisfaction. Table 4 below summarizes all the data as provided by Specchia *et al,* (2021).

LEADERSHIP STYLE	POSITIVE EFFECT ON JOB SATISFACTION	NO EFFECT ON JOB SATISFACTION	NEGATIVE EFFECT ON JOB SATISFACTION	TOTAL PER LEADERSHIP STYLE
Transformational	9	0	0	**9**
Transactional	4	3	1	**8**
Laisses-faire	0	0	3	**3**
Servant	1	0	0	**1**
Resonant	1	0	0	**1**
Passive-Avoidant	0	0	3	**3**
Authentic	1	0	0	**1**
TOTAL STUDIES REVIWED	**16**	**3**	**7**	**26**

5.5 Case # 5

In a study conducted by Radevic *et al*, (2020) in which the aimed to establish the relationship between knowledge transfer, hierarchical organizational structure, and trust, forty-five (45) healthcare institutions were sampled, out of which thirty-two (32) were public facilities while thirteen (13) were private centres. The pool was further increased by including medical doctors from the doctor's union based in additional sixteen different facilities. Radevic *et al,* (2020) state that they gave out one hundred and fifty-one (151) questionnaires. Table 5 in the next page gives a breakdown of the

sample population and all variables relating to the one hundred and fifty-one (151) participants.

AGE CATEGORY (YEARS)			
31 – 39		50 – 59	
24.30%		37.50%	
MANAGEMENT POSITION			
BOARD MEMBERS	MEDICAL DOCTORS	MEDICAL TECHNICIANS	MEDICAL DOCTORS' UNION
29.80%	29.80%	29.80%	10.60%
EDUCATIONAL QUALIFICATION			
BELOW BACHELORS	BACHELORS & ABOVE		
17.60%	82.40%		
WORK EXPERIENCE (YEARS)			
<5	>5		
5.30%	94.70%		
WORK EXPERIENCE IN SAME ORGANIZATION			
<5	>5		
6.70%	93.30%		
GENDER DISTRIBUTION			
F	M		
60.30%	39.70%		

5.5.1 Knowledge Transfer

Questionnaires were issued that were focusing on establish on the opinion of the healthcare centres' strategies to identify and empower potential succession leaders. In knowledge transfer, $\alpha = 0.93$ from the eight-item scale.

5.5.2 Hierarchical Organizational Structure

The issued questionnaires aimed at assessing the extent to which the organizational structure delays or makes it difficult to share information. The three-item scale was used where $\alpha = 0.80$.

5.5.3 Trust

Using the three-point scale where α = 0.83, questionnaires were sent out to assess the level of organizational trust on employees.

5.5.4 Quality of Healthcare Services

The five-item scale was used to assess the level of healthcare services quality through questionnaires where α = 0.85. by Radevic *et al* (2020).

Table 6 below shares the information on the correlations between the variable that were measured in the experiment as shared by Radevic *et al,* (2020).

VARIABLES	MEAN	SD	1	2	3	4	5	6
AGE	48.82	10.76	-					
Highest Level of Education	4.72	0.64	-0.60	-				
Knowledge Transfer	3.89	0.94	0.01	0.01	(0.93)			
hierarchical Organizational Structure	2.21	0.92	-0.60	-0.1	-0.59**	(0.80)		
Trust	2.04	0.79	0.17*	-0.05	-0.4**	0.62	(0.83)	
Quality of Healthcare	3.8	0.8	-0.01	-0.11	0.65**	-0.51	-0.43	(0.85)

Reliability indicators (Cronbach's alphas) are on the diagonal in the parentheses. **p < 0.01 and *p < 0.05 Legend: SD = Standard Deviation, p = significance

The data on table 6 shows a significant and positive correlation between the quality of healthcare services and knowledge transfer at a reading of 0.65. the readings as shared by Radevic *et al* (2020) indicates that quality of healthcare services had a significant and negative correlation with both hierarchical organizational structure and trust at -0.51 and -0.43 respectively. Radevic *et al,* (2020) went a step further to establish whether there are any direct relationships between the variables. Radevic *et al,* (2020) established that there is a significant and positive relationship between knowledge transfer and the quality of healthcare services. Also, Radevic *et al*, (2020)

establish a significant and positive relationship the two-way interaction of knowledge transfer and trust on the quality of healthcare services. Radevic *et al* (2020) also noted that for the highest level of quality of healthcare to be achieved, trust has a role to play. They also found out that better knowledge transfer improves quality of healthcare services.

Table 7 as provided by Radevic *et* al (2020), gives a summary of Hierarchical regression analysis predicting the quality of healthcare services – Models 1–4.

Variables	Model 1				Model 2				Model 3				Model 4			
	B	s.e.	ß	t	b	s.e.	ß	t	b	s.e.	ß	T	b	s.e.	ß	t
Age	0	0.01	0.01	0.09	−.00	0.01	−.02	−.25	0	0.01	0.01	0.15	0	0.01	0.01	0.08
Highest Level of Education	−.16	0.08	−.13	−1.95*	−.21	0.1	−.16	−2.14*	−.14	0.08	−.11	−1.74	−.16	0.09	−.13	−1.74
C_KNOT	0.48	0.06	0.56	7.84**					0.43	0.06	0.51	6.93**				
C_ORGSTR					−.36	0.09	−.41	−4.20**					−.30	0.09	−.34	−3.53**
C_TRUST	−.21	0.07	−.21	−2.87*	−.18	0.1	−.18	−1.80	−.15	0.08	−.15	−2.03*	−.11	0.1	−.11	−1.07
C_KNOTxC_TRUST									0.17	0.06	0.21	2.89*				
C_ORGSTRxC_TRUST													−.18	0.06	−.26	−3.06**
R2	0.469				0.303				0.503				0.353			
F(df)	27.14(123)				13.39(123)				24.68(122)				13.31(122)			
ΔR2	0.469				0.303				0.034				0.05			

*P<0.05 **P<0.01

In model 1, the results suggested that there is a significant and positive relationship between knowledge transfer and quality of healthcare services. Model 2 results showed a significant and negative relationship between hierarchical organizational structure and quality of healthcare services. Models 3 and 4 had trust as a mediator to establish how variables affect healthcare services quality. Model 3 showed significant and positive relationship between two-way interaction of knowledge transfer and trust on quality of healthcare services while model 4 showed a significant and negative relationship between two-way interaction of hierarchical organizational structure and trust on quality of healthcare services.

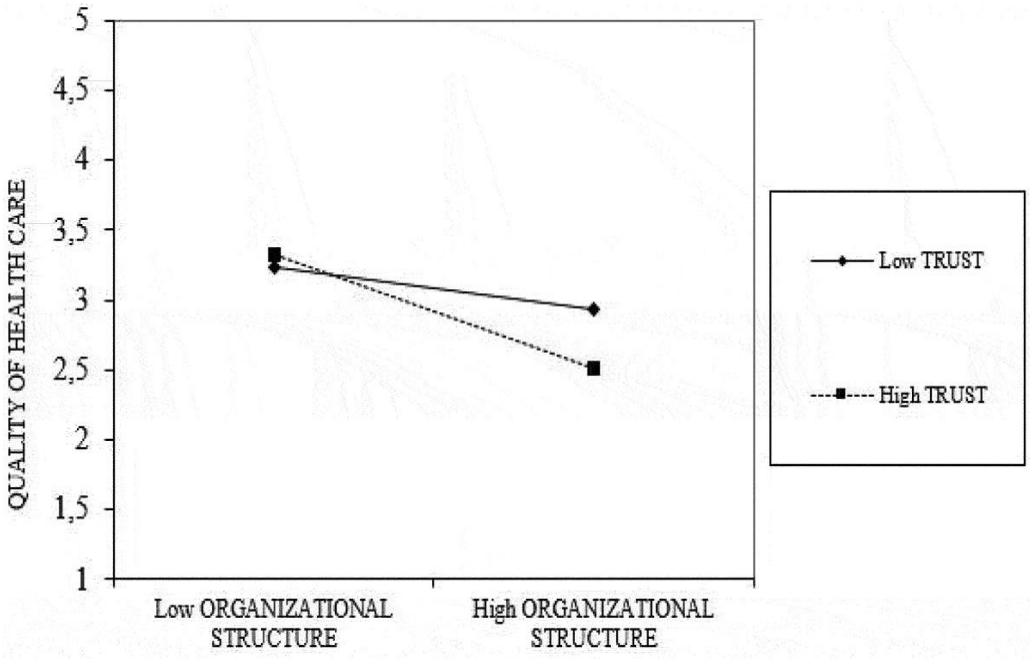


Figure 1 above summarises how low organizational structure, high organizational structure, low trust, and high trust against quality of healthcare.

The results show that trust of employees is lower at high organizational structure. High organizational structure relates to low quality of health care with high trust and relatively better quality of care with low trust. Low organizational structure scores better on quality of health care with both low and high trust compared to high organizational structure.

5.6 PUBMED AND CONCHRANE LIBRARY

The articles that were retrieved through these two search engines did not address the issues of interest and hence were discarded.

6 Discussion

6.1 Case # 1

At the end of the journal written by Ravaghi *et al* (2020), improving the managers' strategic and operational skills positively improves healthcare quality output. Their finding of importance to this dissertation is that training focusing on technical skills bore more positive results.

6.2 Case # 2

The results obtained by Alshourah, (2021) in relation to quality performance demonstrated a high score with mean results of 3.92. by the management. The high perception of quality by management allows good, more effective interactive, response to improve healthcare management quality, reducing medical errors and focusing on patient centered care. Bearing in mind the statement by Glickman *et al* (2007), suggesting that all processes originate or are greatly influenced by organizational attributes such as organizational design and information management, it becomes clearer that the quality perception by management plays a critical role in organizational processes and hence its outcomes.

In relation to managerial support and commitment to quality initiatives, the score of 3.68 was obtained. Management support and commitment is very key in ensuring that the processes are positively affected. Managerial training and participation obtained a high score of 4.41. This is a very good score as this shows that prioritizing training and management participation in most workplace activities greatly improves quality of care. Management participation and advocacy for training may to some degree communicate the principle of management buy-in of the strategy and determination to ensure quality.

Process management by management scored a high score of 3.87. With reference to Glickman *et al* (2007) that management is responsible for developing processes, a committed management to the strategies, supporting quality initiatives and managing the process, guarantees best outcomes provided they have the appropriate knowledge. Scoring 3.80 for continuous improvement and 3.72 for customer focus continues to support that the management have an influence in the high quality of healthcare services that the Jordan hospitals are known for.

This study approves hypothesis i and ii.

6.3 Case # 3

The study by Mosadeghrad (2020) conducted concluded that hospital accreditation is a tool perceived by some managers for medical output quality improvement. Managers that understand strategic and operational planning will value the hospital/health facility accreditation to ensure continual improvement of their systems

to reduce medical errors, improve customer satisfaction due to better healthcare process output. This study demonstrates that management skills and strategic planning can either improve the healthcare processes or destroy them.

6.4 Case # 4

Studies by Specchia *et al*, (2021) shows that management's approach and leadership style can affect employee performance either positively, no effect or negatively. Out of a total of twenty-six (26) studies reviewed by Specchia *et al* (2021), 61.5% demonstrated positive effect on job satisfaction, 11.5% showed no effect while 26.9% showed negative effect on job satisfaction. Transformational leadership style, 100% of the studies demonstrated a positive effect on job satisfaction, whereas transactional leadership, 50% showed positive effect on job satisfaction, 37.5% showed no effect whereas 12.5% showed negative effect.

100% of the studies on laisses-faire showed negative effect. 100% of the servant, authentic and resonant leaderships style demonstrated a positive effect, whereas all the passive-avoidant leadership style demonstrated negative effective on job satisfaction. A study on authentic leadership style gave positive effect on job satisfaction. This study clearly supports hypothesis (iii) that suggest that how management leads the team affects their satisfaction and ultimately their performance in the workplace. Happy employees perform and implements processes better hence obtaining best process outputs. Tables 2 and 3 of this study were excluded because they summarised the details of the studies reviewed such as year of publication, study design and country of study and the quality of the study. These data, though important, but does not help us in achieving the objectives of this dissertation.

6.5 Case # 5

In a study by Radevic *et al* (2020), they found that the organizational structure affects a couple of elements that affects the quality of healthcare output. They discovered that when trust of employees is low either due to high organizational structure or high due to low organizational structure, the quality of healthcare is affected. High organizational structure also affects the sharing/transfer of information ultimately affecting quality of care. It is important to remember that factors such as

organizational design, organizational culture, information management and incentives are greatly if not entirely dependent on the board of directors, executive managers according to Glickman *et al* (2007). They (Radevic *et al* (2020)) also noted that knowledge transfer also affects quality of health care. This therefore supports hypothesis (i) and (ii).

With research revealing that healthcare output quality is a world concern, governments and individual private healthcare companies spending of Dollars to achieve an improved output quality without much success, I suggest that, research should be carried out to establish if the companies are not spending so much on developing the middle managers and leaving out the most important part of the system; the organizational attributes, (physical characteristics, organizational culture, organizational design and information management). Considering the recommendation by Glickman *et al*, (2007), which suggests that for an effective system to be established, organizational structures play a major role.

7 Conclusion

Findings from different studies supports the idea of managerial role in determining the healthcare output quality. This does not mean that other stakeholders do not play a role in healthcare output quality. The findings appreciates that the skills and knowledge of managers play a major role as they (managers) are policy developers, and they are the ones who decide on management styles, incentives, and the portfolios of all professionals in the organization. Managers develop strategies, select leadership styles, decide the rate of growth of the company, decide the target market and their needs, and guide their implementation, making them the most valuable members of the team in influencing the process. Findings from different studies support the idea that organizational attributes have a greater influence on organizational functioning; output quality, process efficiency and cost effectiveness that was proposed by Glickman, (2007).

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