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**TOTAL QUALITY MANAGEMENT PRACTICES AND SERVICE DELIVERY OF
PUBLIC HOSPITALS AND PRIMARY HEALTH CARE FACILITIES IN MOMBASA
COUNTY, KENYA**

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Strategy

TOTAL QUALITY MANAGEMENT PRACTICES AND SERVICE DELIVERY OF PUBLIC HOSPITALS AND PRIMARY HEALTH CARE FACILITIES IN MOMBASA COUNTY, KENYA

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Abstract

Purpose: The main purpose of this study was to find out the major influence of Total Quality Management on the Service Delivery of Public Hospitals and Primary Health Facilities in Kenya, a case of Mombasa County.

Methods: The Study used descriptive research design and a population of 55 respondents was considered. A census of the 55 respondents was done because the sample size was small. The study used structured and unstructured questionnaires with closed and open-ended questions for data collection. Analysis of the Quantitative data collected was done using SPSS (Version 22) and presented through percentages, means, standard deviations and frequencies. A multiple regression analysis was conducted to estimate the model for the study. The Data was then presented in graphs, frequencies, charts and tables.

Results: From the findings it was found that employee involvement positively and significantly affected service delivery, technology adoption had a positive and significant effect on service delivery, continuous improvement had a positive and significant relationship with service delivery and clients focus and service delivery was positively and significantly related.

Unique contribution to theory, practice and policy: The study recommended Public hospital management to adopting employee involvement culture by encouraging them to develop their career, involving them in all decision making as well as motivating them through rewards and performance appraisal.

Keywords: *Total quality management practices, employee involvement, service delivery client focus and continuous improvement*

1.0 INTRODUCTION

1.1 Background to the Study

Kenya has worked to improve the health of its population since independence, 75.19% of who live in rural areas (Country Profile, 2013). The Kenya health policy published in 1994 by the Government envisions the provision of acceptable, affordable and accessible healthcare to all Kenyans by 2010. The Ministry of health is responsible for development, formulation of standards and resources allocation for healthcare services across the Country. The Government acknowledges that the Country has more than 5,000 health facilities out of which 41% are Public health facilities, 15 % are run by NGOs and the private sector operates 43 % (WHO, 2014). There is a shortage of doctors with only 4,500 in the entire country. There is only one doctor per 10,000 people; which is way below the average ratio for Africa. Fifty percent of the country physicians are based in Nairobi, while the public sector employs only 1000 physicians. Nurses supplements physicians care assisted by traditional birth attendants, pharmacists and community health workers. Traditional doctors are the only “healthcare” workers in some areas (Country Profile, 2013).

Quality management in health system seeks to increase patients’ satisfaction with the services and improve effectiveness of treatment. With the increase in population, the need for healthcare increases. A health care comprises of medical clinics, pharmacies and hospitals. All these elements need to supplement each other for a strong health system. For Quality Management to be effective it should focus on the patients’ needs because their wellbeing determines the Quality of service delivery. Quality management emphasizes on continuous monitoring of patients condition and their satisfaction with services for example by use of medical tests, results and patients opinion of effectiveness of treatment. An effective quality delivery of healthcare also relies on motivated employees. Quality management is all about delivering continuity of quality with reliable processes. The Process needs the existence of performance goals, risk reduction procedures, quality improvement system and reward mechanism. Quality of health care is based on compliance with the external regulations and adoption of the latest technologies and competence (Sarkissian, 2008).

Service delivery has generated so much interest in the 21st Century and it has been highly researched by Researchers. A service is defined as a primary activity that does not result in the production of a physical product (Sethi, 2017). It is also defined by Khadka and Maharjan (2017) as a business component that defines the interaction between clients and providers where service is being provided and value is gained in the process. According to Al Mansour (2007) customer is at the heart of service delivery. Several studies have reported that service delivery is interlinked with quality. Therefore, customer is the main focus of service delivery and that quality, ability to meet customers’ expectations is important in service delivery. Zeithaml, Bitner and Gremler (2006) also emphasized that the Service providers need to improve their capacity to understand the demand and to identify the type of services which is responsive to different clients. Due to changing environment, it is important to assess the level of performance of different providers so that to pick the best for the job.

Total Quality Management, TQM, is a method by which employees and management become interdependent in the production of quality goods and services. It is comprised of management tools and quality aimed at improving processes and, waste reduction (Hashmi, 2010). Total Quality Management involves: attitude, culture and employee involvement in the satisfaction of clients' needs. The culture cut across the entire operations and processes of the company to achieve quality first time and waste reduction (Peters, 1994). Total quality management focuses on customer satisfaction. It demands firms to establish clients' oriented operations and achieving their needs as a means of profitability. An approach is therefore needed to align the corporate culture to achieve customer satisfaction. Effective change of corporate culture should compliment top management commitment, continuous improvement and effective communication. Top management implementing TQM systems need to establish: effective communication, effective employee development, employee involvement, and information use efficiently and effectively (Hashmi, 2010).

The World Health Organization (1978) defines Health as a condition of good physical, social and mental wellbeing and not just an absence of disease. The Right to the highest attainable standards of health is enshrined in the new constitution (GOK, 2010). In Kenya the healthcare services is being provided by Government Hospitals, industrial health units, private institutions, Muslim organizations, Church missions and individuals. The health care service delivery in Kenya is faced with numerous challenges such as: shortage of health workers, poor management of healthcare services, inadequate funding, and poor distribution of health care institutions among others (Government of Kenya, 1994). Most Hospitals are giving so much importance in service quality improvements which results to low operational costs hence improved service delivery and customer satisfaction (Stevenson & Tsui, 2002).

In Kenya, like most developing countries in Africa, premature deaths and preventable diseases still inflict a high toll in communities and its people. Inadequacy in access to basic health services is affecting distinct regions, areas, communities, and social groups in these countries. Most Public Hospitals in the recent past have witnessed employee dissatisfaction presented in terms of refusal to offer services due to failure of payment of dues, poor working environment, inadequate infrastructure and lack of commitment by the management to engage with employees. This gap in management of Public Hospitals has led to unwarranted suffering by the patients who peg their hopes on the services offered by these hospitals (Kenya Demographic & Health Survey, 2010).

Mombasa County is one of the counties located in the coastal part of Kenya. It has 6 constituencies namely: Mvita, Changamwe, Jomvu, Nyali, Kisauni and Likoni. It has a population of 939, 370 of which 486,391 are male and 452,109 are female (KDHS, 2009). The health service delivery in Kenya is organized around six levels of care. The health facilities in Mombasa comprises of 5 referral hospital, 6 health centers and 30 Dispensaries). The Coast Provincial General Hospital serves 33,000 in-patients and 197,810 out patients per year. Some of the challenges affecting the Provision of quality services include: Poor utilization of treatment guidelines, poor documentation, a weak supply chain, bureaucratic procurement procedures, poor distribution of health workforce, weak appraisal systems and inadequate funding for the health

sector (Kenya Health Sector Strategic and Investment Plan, 2014). The Maternal mortality rate (MMR) is 248.6 maternal death per 100,000 live births, a high under five mortality rate of 57 deaths per 1000 live births and a high infant mortality rate of 35.3 deaths per 1000 live births. The county has a total of 1,632 or 36.4% health workers against an ideal requirement of 4,483 health workers. The available ambulances are few and poorly maintenance. Three out of four sub-county health management committees lack offices. Supply of essential commodities is not adequately meeting the demands of the people (Kenya Health Sector Strategic and Investment Plan, 2014)

1.1 Statement of the Problem

The public sector in Kenya is continuously faced with challenges of operational inadequacies and poor quality of services and as a solution to the problems in the service delivery, the public organizations are implementing quality management to be efficient and effective in satisfying public needs (Omondi, 2016). The ministry of health has been faced with chronic challenges of poor management of facilities, funds, human resource and customer care. This calls for improved quality management to ensure all stakeholders are satisfied. Majority of the studies on quality management in public health facilities were mainly conducted in developed countries; therefore there is a research gap in developing countries (Maxwell, 2011).

Healthcare delivery systems in Mombasa County face various challenges including: poor quality of services, not being customers' oriented, poor accessibility and cost reduction measures (Kenya Health Sector Strategic and Investment Plan, 2014). Healthy life years are estimated at 48 years with 82% of the mortality caused by communicable diseases. The health centers in Mombasa County have a shortage of doctors, nurses and public health officers and clinical officers. Patients suffering from minor ailments have had to travel for long distances to the referral hospital because the health centers lack equipment, personnel and drugs to attend to them. The services provided by the hospital are therefore neither reliable nor are they responsive to the needs of the patients (Okwany, 2013).

2.0 LITERATURE REVIEW

Muzaffer(2009) stated that as a result of the rapid advances being made in science and Employees Involvement in TQM Implementation results in the achievement of organizational goals. Not only should organization involve its employees, but also empower their decision making abilities for continuous improvement of systems and processes. Organization should strive to tap the abilities, innovations and ideas for the success of the organization. Employee's involvement improves the productivity and service delivery through motivation (Besterfield-Sacre, Ozaltin, Robinson, Shuman, Shartrand & Weilerstein, 2013). Bilich and Neto (2000) emphasized on the significance of employees involvement to the achievement of quality service delivery. Organizations should continuously monitor, motivate and reward employee's involvement in quality management. A favorable environment for the involvement should also be created by the management of the organization. In addition to a good environment,

organization needs to communicate both individual and organizational goals and make work more interesting and challenging as a way of encouraging involvement (Van Zyl, Deacon & Rothmann, 2010)

Controlling escalation of costs and improving the healthcare of citizens is what every nation seeks to achieve. In 2010 alone, only 20% of ICT supported health services are in developing countries (Rudowski, 2009). Consultations which are done online using emails are known to save significant time for the hospitals in service delivery. This level of ICT in health has not been well adopted in developing countries by most professional and community users. Due to insufficient studies aimed at establishing relevance, applicability or cost effectiveness, most of these approaches are relatively new (Berland, Elliott, Morales, Algazy, Kravitz, Broder & Watkins, 2011). The Governments in these nations therefore find it complex to determine their investment priorities especially in ICT (Chandrasekhar & Ghosh, 2001).

To meet the current and future performances, training of employees is vital. In addition to imparting requisite skills by training to all levels of employees, management also aims at changing the behavioral patterns of the employees in a direction which is in line to achieve the organizational effectiveness, sustainability and growth (Argote, 2011). In this era of fast changing scenario, solid financial foundation is not enough for any public health care organization nor is state of the art technology, automated systems, because the cutting edge now remains the quality of the human resources, which at the end of the day decides whether the public organizations would ultimately survive in the long-run (Argote, 2011).

A close relationship with customer is important to in determining the clients' requirements and achieving their expectations. Client focus is the emphasis paced by organizations in achieving clients' needs (Das, Paul, and swierczek, 2008). Ramseook-Munhurrin, Lukea-Bhiwajee and Naidoo (2010) reported that the Service sector organizations are mandated to provide services that are clients focused. It is therefore important that clients' expectations are understood and the gaps between expectations and perceptions are identified and filled. According to Otieno (2004), increasing the number of health care facilities will not guarantee increase in utilization by the clients. Awuor and kinuthia (2013) also reported the importance of customer focus and satisfaction in improving service deliver in hospitals. According to the 2014 data, utilization of healthcare service by sick clients in Kenya stands at 77% (KDHS, 2014).

3.0 METHODOLOGY

The Study used descriptive research design and a population of 55 respondents was considered. A census of the 55 respondents was done because the sample size was small. The study used structured and unstructured questionnaires with closed and open-ended questions for data collection. A variety of questions were used for the respondents for each objective. Analysis of the Quantitative data collected was done using SPSS (Version 22) and presented through percentages, means, standard deviations and frequencies. A multiple regression analysis was conducted to estimate the model for the study. The Data was then presented in graphs, frequencies, charts and tables.

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 Demographic Data

4.1.1 Gender of the Respondents

The researcher asked the respondents to indicate their gender. The responses given are as presented in Figure 1 below.

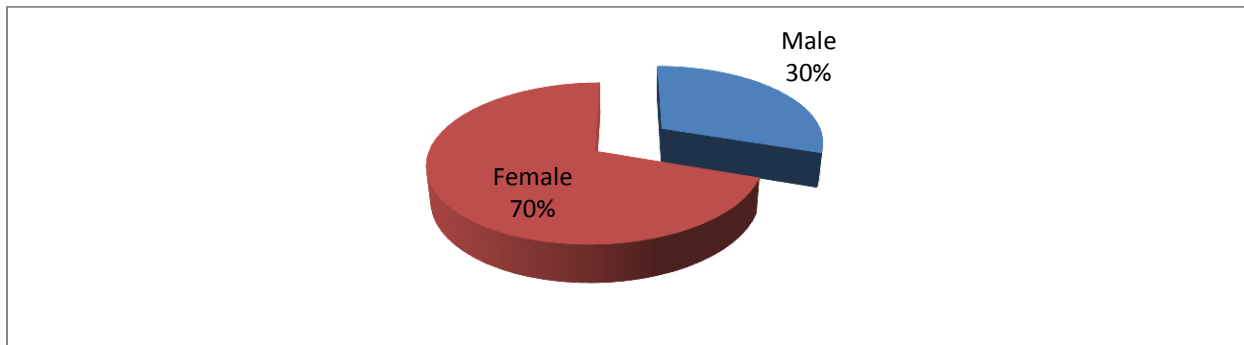


Figure 1: Gender of Respondents

Source: Survey Data (2018)

The results as presented in Figure 1 revealed that majority (70%) of the respondents were female while only 30% were male. This implied that the facilities in charges in Mombasa county hospitals were majorly female.

4.1.2 Level of Education of Respondents

The respondents were also asked to indicate the highest level of education they had attained. Figure 2 shows the results of the responses given.

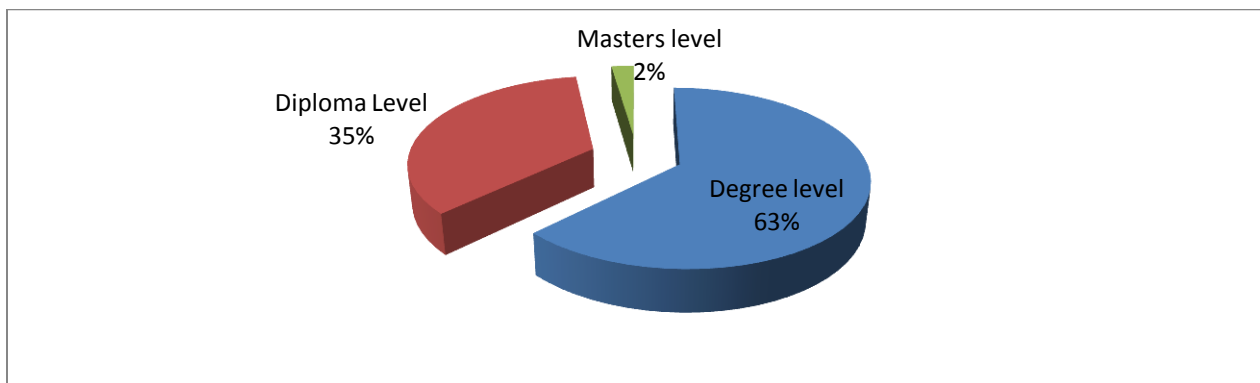


Figure 2: Level of Education of Respondents

Source: Survey Data (2018)

The results shown in Figure 2 revealed that majority (63%) of the respondents had attained a degree level of education. Secondly, 35% of the respondents had diploma level of education while only 2% had attained a master’s level of education. This implied that majority of the Public health facilities incharges in Mombasa County had the right qualifications and were skilled for the position.

4.1.3 Period of Time as In Charge

The respondents were asked to indicate the period of work as an in charge of the department/facility. The results are shown in Figure 3.

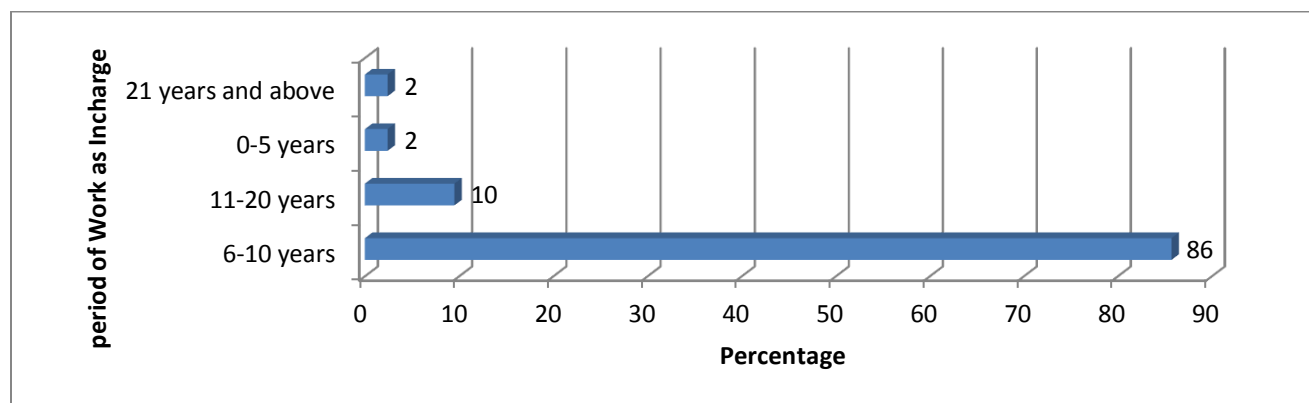


Figure 3: Period of Time as In Charge

Source: Survey Data (2018)

The results presented in Figure 3 indicated that majority of the respondents (86%) had worked as in charge for 6-10 years. In addition, the results revealed that 10% of the respondents had worked as in charge for 11-20 years, 2% had worked for 0-5 years while another 2% had worked for 21 years and above. This implied that the respondents had worked for a good duration of time in their position as in charge therefore had gained enough experience on the job and could easily adopt the Total Quality Management Practices.

4.1.4 Facility Level

Finally on the demographics, the respondents were asked to indicate the level of the facility they were working on. The responses given were as shown in Figure 4.

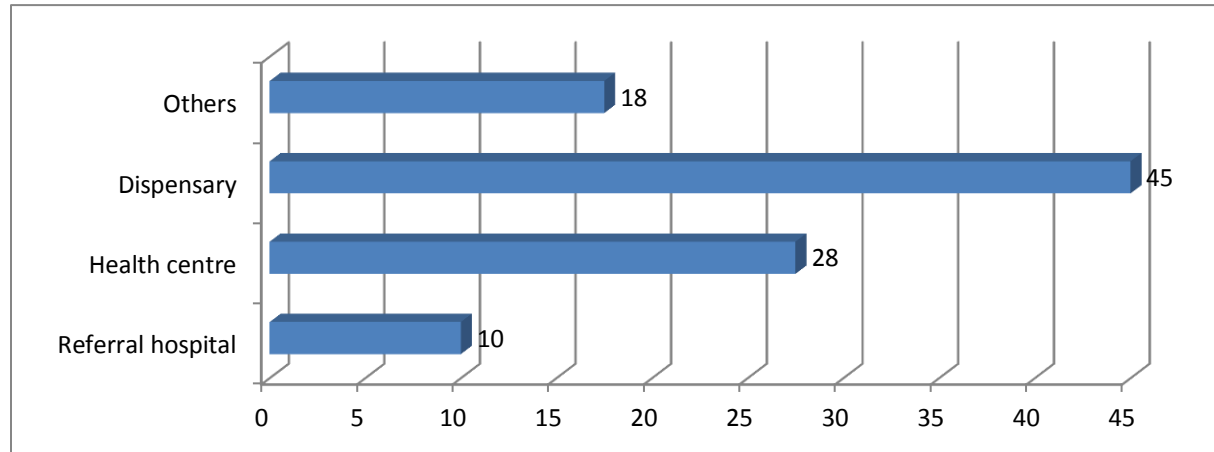


Figure 4: Facility Level

Source: Survey Data (2018)

The results given indicated that most 45% of the respondents were working in dispensaries, 28% were working in health centres, 18% were working in other facilities which included sub county hospitals and district hospitals while 10% were working in referral hospitals. Generally, in all the counties in the country, dispensaries are the majority with health centres following. Referral hospitals take the smallest percentage of the health facilities in each county. Therefore, the results implied that all the facilities were well represented in the study. Respondents were asked to state some of the total quality management practices that are practiced in their facility. Table 1 presents the themes of responses given.

Table 1: Total Quality Management Practices

| Themes | Percentages |
|-----------------------------------|-------------|
| Continuous improvement | 45 |
| Technology adoption | 10 |
| Strategic and systematic Approach | 5 |
| Process-centered | 5 |
| Clients focus | 15 |
| Employee involvement | 20 |
| Total | 100 |

Source: Survey Data (2018)

Table 1 indicated that most (45%) of the respondents were giving responses related to continuous improvement. Twenty percent gave employee involvement responses, 15% gave client's focus related responses, 10% gave technology adoption related responses, 5% were stating that their facility practice process centred practices while another 5% said strategic and systematic approach practices.

4.2 Descriptive Statistics

4.2.1 Employee Involvement

The researcher respondents were asked to indicate their level of agreement on the statement given concerning employee involvement. The results are as shown in Table 2

Table 2: Employee Involvement

| Statements | SD | D | N | A | SA | Mean | Std. Dev |
|---|------|------|-------|-------|-------|-------------|-------------|
| The Hospital/Facility human resource policy encourages employee involvement and gives authority in decision making | 7.0% | 7.0% | 16.3% | 60.5% | 9.3% | 3.58 | 1.01 |
| The Hospital/Facility encourages employee career development through training and education | 9.3% | 4.7% | 14.00 | 37.2% | 34.9% | 3.84 | 1.23 |
| The Hospital/Facility leadership motivates rewards and looks after the employee well-being | 2.3% | 4.7% | 32.6% | 41.9% | 18.6% | 3.7 | 0.91 |
| The Hospital/Facility conducts performance appraisal and gives feedback to employees | 2.3% | 7.0% | 32.6% | 30.2% | 27.9% | 3.74 | 1.03 |
| The Hospital/Facility encourages employees to set their own goals, judge their performance and take full responsibility for their actions | 9.3% | 9.3% | 18.6% | 34.9% | 27.9% | 3.63 | 1.25 |
| The Hospital/Facility leadership involves the employees in procurement and financial decisions | 9.3% | 2.3% | 9.3% | 44.2% | 34.9% | 3.93 | 1.18 |
| Average | | | | | | 3.74 | 1.10 |

Source: Survey Data (2018)

The results presented in Table 2 revealed that majority of the respondents who were 69.8% (60.5%+9.3%) agreed to the statement that the Hospital/Facility human resource policy encourages employee involvement and gives authority in decision making. Secondly, results indicated that majority (72.1%) of the respondents agreed to the statement that the Hospital/Facility encourages employee career development through training and education. The mean of the responses was 3.84 which were above average indicating that most of the respondents agreed to the statement. The results also indicated that 60.5% of the respondents who were the majority agreed to the statement that the Hospital/Facility leadership motivates rewards and looks after the employee well-being. The mean of the responses was 3.7 which was above average indicating that most of the respondents agreed to the statement. Further, the results showed that most of the respondents who were 58.1% agreed to the statement that the Hospital/Facility conducts performance appraisal and gives feedback to employees. The mean of the responses was 3.74 which was above average indicating that most of the respondents agreed to the statement. Furthermore, the results indicated that most (62.8%) of the respondents agreed to the statement that the Hospital/Facility encourages employees to set their own goals, judge

their performance and take full responsibility for their actions. The mean of the responses was 3.63 which was above average indicating that most of the respondents agreed to the statement. Finally, the results showed that majority of the respondents who were 79.1% agreed to the statement that the Hospital/Facility leadership involves the employees in procurement and financial decisions. The mean of the responses was 3.93 which was above average indicating that most of the respondents agreed to the statement. On a five point scale, the average mean of the responses was 3.74 which means that majority of the respondents were agreeing with most of the statements. However the answers were varied as shown by a standard deviation of 1.10.

The respondents were also asked to say in their opinion if employees' involvement influences service delivery in the Hospital/Facility. The results are as presented in Figure 5.

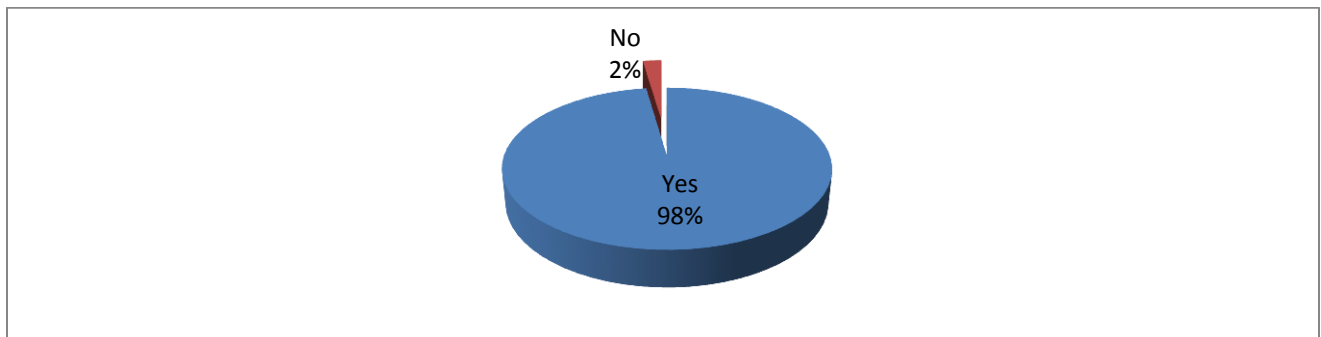


Figure 5: Influence of Employee Involvement on Service Delivery

Source: Survey Data (2018)

The results indicated that majority (98%) of the respondents were for the opinion that employee involvement had influence on service delivery. Two percent of the respondents said that employee involvement does not influence service delivery.

4.2.2 Technology Adoption

The researcher requested the respondents to indicate their level of agreement on the statement given concerning technology adoption. The results are as shown in Table 2.

Table 2: Technology Adoption

| Statements | SD | D | N | A | SA | Mean | Std. Dev |
|--|-------|-------|-------|-------|-------|-------------|-------------|
| The Hospital/Facility has workable technological facilities | 11.6% | 16.3% | 7.0% | 34.9% | 30.2% | 3.56 | 1.39 |
| The Hospital/Facility has computerized registration facility | 14.0% | 9.3% | 11.6% | 27.9% | 37.2% | 3.65 | 1.43 |
| The Hospital/Facility has a computerized pharmacy | 4.7% | 9.3% | 16.3% | 25.6% | 44.2% | 3.95 | 1.19 |
| The Hospital/Facility has a computerized billing system | 14.0% | 11.6% | 9.3% | 32.6% | 32.6% | 3.58 | 1.42 |
| The Hospital/Facility has a computerized consultation and diagnosis system | 9.3% | 7.0% | 14.0% | 34.9% | 34.9% | 3.79 | 1.26 |
| The Hospital/Facility Departments are connected using ICT | 11.6% | 14.0% | 9.3% | 27.9% | 37.2% | 3.65 | 1.41 |
| The Hospital/Facility has a reliable internet connectivity | 11.6% | 0.0% | 11.6% | 41.9% | 34.9% | 3.88 | 1.24 |
| Average | | | | | | 3.72 | 1.33 |

Source: Survey Data (2018)

The results presented in Table 3 revealed that majority of the respondents who were 65.1% (34.9%+30.2%) agreed to the statement that the Hospital/Facility has workable technological facilities. Secondly, results indicated that majority (65.1%) of the respondents agreed to the statement that the Hospital/Facility has computerized registration facility. The mean of the responses was 3.65 which was above average indicating that most of the respondents agreed to the statement. The results also indicated that 69.8% of the respondents who were the majority agreed to the statement that the Hospital/Facility has a computerized pharmacy. The mean of the responses was 3.95 which was above average indicating that most of the respondents agreed to the statement. Further, the results showed that most of the respondents who were 65.2% agreed to the statement that the Hospital/Facility have a computerized billing system. Furthermore, the results indicated that most (65.8%) of the respondents agreed to the statement that the Hospital/Facility has a computerized consultation and diagnosis system. The mean of the responses was 3.79 which was above average indicating that most of the respondents agreed to the statement. Additionally, results indicated that 65.1% of the respondents who were the majority agreed to the statement that the Hospital/Facility Departments are connected using ICT. The mean of the responses was 3.65 which was above average indicating that most of the respondents agreed to the statement. Finally, the results showed that majority of the respondents who were 76.8% agreed to the statement that the Hospital/Facility has reliable internet connectivity. The mean of the responses was 3.88 which was above average indicating that most of the respondents agreed to the statement. On a five point scale, the average mean of the responses was 3.72 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.33.

Further, respondents were asked to state some of the challenges the facility face in technology adoption strategy. The responses given are as reflected under the themes in Table 3.

Table 3: Challenges the Facility Face in Technology Adoption Strategy

| Themes | Percentages |
|-------------------------|-------------|
| Lack of equipment | 40 |
| Incompetence | 40 |
| Lack of Human Resources | 5 |
| Insufficient funding | 15 |
| Total | 100 |

Results indicated that 40% highlighted lack of equipment as a challenge to technology adoption strategy, another 40% indicated incompetence as a challenge, 15% identified insufficient funding while 5% said lack of human resources to operate the machines was a challenge.

4.2.3 Continuous Improvement

The researcher requested the respondents to indicate their level of agreement on the statement given concerning continuous improvement. The results are as shown in Table 4.

Table 4: Continuous Improvement

| Statements | SD | D | N | A | SA | Mean | Std. Dev |
|---|------|-------|-------|-------|-------|-------------|-------------|
| The Hospital/Facility has developed and published a clear corporate mission and objectives | 2.3% | 14.0% | 14.0% | 41.9% | 27.9% | 3.79 | 1.08 |
| The Hospital/Facility has a functional quality team dedicated to continuously improving quality | 2.3% | 9.3% | 16.3% | 44.2% | 27.9% | 3.86 | 1.01 |
| The Hospital/Facility leadership has provided a healthy and conducive environment for innovation and creativity | 4.7% | 7.0% | 27.9% | 46.5% | 14.0% | 3.58 | 0.98 |
| The Hospital/Facility leadership has provided a healthy and conducive environment for continuous improvement | 4.7% | 7.0% | 14.0% | 58.1% | 16.3% | 3.74 | 0.98 |
| The Hospital/Facility leadership is committed to allocate the necessary resources for continuous improvement | 9.3% | 11.6% | 9.3% | 55.8% | 14.0% | 3.53 | 1.16 |
| The Hospital/Facility is determined to achieve and continuously and surpass the annual health targets | 2.3% | 2.3% | 9.3% | 58.1% | 27.9% | 4.07 | 0.83 |
| Average | | | | | | 3.76 | 1.01 |

Source: Survey Data (2018)

The results presented in Table 5 revealed that majority of the respondents who were 69.8% (41.9%+27.9%) agreed to the statement that the Hospital/Facility has developed and published a clear corporate mission and objectives. The mean of the responses was 3.79 which was above average indicating that most of the respondents agreed to the statement. Secondly, results indicated that majority (72.1%) of the respondents agreed to the statement that the Hospital/Facility has a functional quality team dedicated to continuously improving quality. The mean of the responses was 3.86 which was above average indicating that most of the respondents agreed to the statement. The results also indicated that 60.5% of the respondents who were the majority agreed to the statement that the Hospital/Facility leadership has provided a healthy and conducive environment for innovation and creativity. Further, the results showed that most of the respondents who were 74.4% agreed to the statement that the Hospital/Facility leadership has provided a healthy and conducive environment for continuous improvement. The mean of the responses was 3.74 which was above average indicating that most of the respondents agreed to the statement. Furthermore, the results indicated that most (69.8%) of the respondents agreed to the statement that the Hospital/Facility leadership is committed to allocate the necessary resources for continuous improvement. Finally, the results showed that majority of the respondents who were 86% agreed to the statement that the Hospital/Facility is determined to achieve and continuously and surpass the annual health targets. The mean of the responses was 4.07 which was very high indicating that most of the respondents agreed to the statement. On a five point scale, the average mean of the responses was 3.76 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.01.

Further, respondents were asked to state their view on whether continuous improvement influence service delivery in the Hospital/Facility. The responses given are as presented in Figure 6.

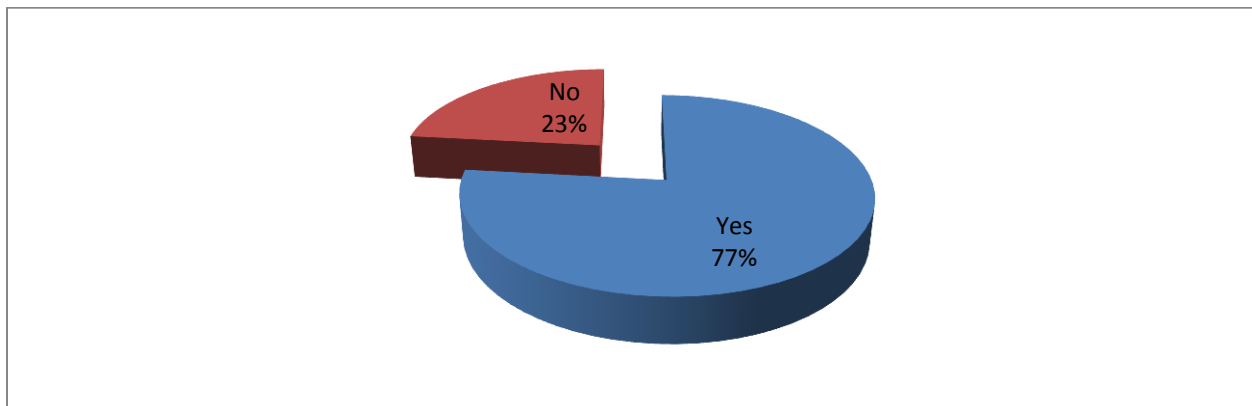


Figure 6: Influence of Continuous Improvement on Service Delivery

Source: Survey Data (2018)

The results revealed that majority (77%) of the respondents indicated that continuous improvement influence service delivery in the Hospital/Facility while 23% indicated that continuous improvement influence service delivery in the Hospital/Facility.

4.2.4 Clients' Focus

The researcher requested the respondents to indicate their level of agreement on the statement given concerning clients' focus. The results are as shown in Table 5.

Table 5: Clients' Focus

| Statements | SD | D | N | A | SA | Mean | Std. Dev |
|---|-------|-------|-------|-------|-------|-------------|-------------|
| The Hospital/Facility has the capacity to satisfy clients' needs and wants | 7.0% | 11.6% | 20.9% | 53.5% | 7.0% | 3.42 | 1.03 |
| The Hospital/Facility services meet the clients' specific needs | 4.7% | 2.3% | 27.9% | 55.8% | 9.3% | 3.63 | 0.87 |
| The Hospital/Facility has embarked on a continuous improvement process to meet clients' needs | 4.7% | 4.7% | 9.3% | 58.1% | 23.3% | 3.91 | 0.97 |
| The Hospital/Facility values both the internal and external customers | 9.3% | 11.6% | 4.7% | 37.2% | 37.2% | 3.81 | 1.31 |
| The Hospital/Facility has attracted new Clients and retained its old Clients | 11.6% | 4.7% | 14.0% | 44.2% | 25.6% | 3.67 | 1.25 |
| The Hospital/Facility has a Suggestion Box displayed and easily accessible to clients | 4.7% | 4.7% | 14.0% | 46.5% | 30.2% | 3.93 | 1.03 |
| The Hospital/Facility regularly open the Suggestion Box and responds to clients concerns promptly | 9.3% | 14.0% | 14.0% | 44.2% | 18.6% | 3.49 | 1.22 |
| Average | | | | | | 3.69 | 1.10 |

Source: Survey Data (2018)

The results presented in Table 5 revealed that majority of the respondents who were 60.5% (53.5%+7.0%) agreed to the statement that the Hospital/Facility has the capacity to satisfy clients' needs and wants. Secondly, results indicated that majority (65.1%) of the respondents agreed to the statement that the Hospital/Facility services meet the clients' specific needs. The mean of the responses was 3.63 which was above average indicating that most of the respondents agreed to the statement. The results also indicated that 81.4% of the respondents who were the majority agreed to the statement that the Hospital/Facility has embarked on a continuous improvement process to meet clients' needs. The mean of the responses was 3.91 which was above average indicating that most of the respondents agreed to the statement. Further, the results showed that most of the respondents who were 74.4% agreed to the statement that the Hospital/Facility values both the internal and external customers. The mean of the responses was 3.81 which was above average indicating that most of the respondents agreed to the statement. Furthermore, the results indicated that most (69.8%) of the respondents agreed to the statement that the Hospital/Facility has attracted new Clients and retained its old Clients. The mean of the responses was 3.67 which was above average indicating that most of the respondents agreed to

the statement. Additionally, results indicated that 76.7% of the respondents who were the majority agreed to the statement that the Hospital/Facility has a Suggestion Box displayed and easily accessible to clients. The mean of the responses was 3.93 which was above average indicating that most of the respondents agreed to the statement. Finally, the results showed that majority of the respondents who were 62.8% agreed to the statement that the Hospital/Facility regularly open the Suggestion Box and responds to clients concerns promptly. On a five point scale, the average mean of the responses was 3.69 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.10.

The respondents were also asked to state the specific responses that the facility has focused on to build client's focus. Responses given are as shown in Table 6.

Table 6: Responses Focused on Clients

| Themes | Percentages |
|-----------------------------------|--------------------|
| Feedback from clients | 6 |
| Good client-employee relationship | 18 |
| Responding to clients' concerns | 12 |
| Service quality improvement | 47 |
| Timeliness | 18 |
| Total | 100 |

Forty seven percent (47%) of the respondents indicated that they have focused on clients through service quality improvement, 18% said that they have improved on timeliness on service delivery, another 18% said they have ensured good client employee relationship, 12% indicated that they respond to clients concerns while 6% said that they encourage feedback giving from clients.

4.2.5 Service Delivery

The researcher requested the respondents to indicate their level of agreement on the statement given concerning service delivery. The results are as shown in Table 7.

Table 7: Service Delivery

| Statements | SD | D | N | A | SA | Mean | Std. Dev |
|--|-------|-------|-------|-------|-------|-------------|-------------|
| Hospital/Facility based immunization services have increased as per annual targets | 9.3% | 2.3% | 11.6% | 39.5% | 37.2% | 3.93 | 1.20 |
| Hospital/Facility based deliveries have increased as per annual targets | 4.7% | 14.0% | 11.6% | 44.2% | 25.6% | 3.72 | 1.14 |
| Hospital based maternal mortality rate have decreased as per the annual indicators | 11.6% | 4.7% | 14.0% | 32.6% | 37.2% | 3.79 | 1.32 |
| Hospital/Facility always provide services as promised | 11.6% | 7.0% | 11.6% | 53.5% | 16.3% | 3.56 | 1.20 |
| Hospital/Facility Waste reduction in operations | 4.7% | 11.6% | 23.3% | 51.2% | 9.3% | 3.49 | 0.99 |
| Hospital/Facility employee operation efficiency has improved thus reducing operation costs | 9.3% | 9.3% | 14.0% | 58.1% | 9.3% | 3.49 | 1.10 |
| Hospital/Facility based infant mortality rate has decreased as per the annual targets | 7.0% | 4.7% | 16.3% | 48.8% | 23.3% | 3.77 | 1.09 |
| Average | | | | | | 3.68 | 1.15 |

Source: Survey Data (2018)

The results presented in Table 7 revealed that majority of the respondents who were 76.7% (39.5%+37.2%) agreed to the statement that Hospital/Facility based immunization services have increased as per annual targets. The mean of the responses was 3.93 which was above average indicating that most of the respondents agreed to the statement. Secondly, results indicated that majority (69.8%) of the respondents agreed to the statement that Hospital/Facility based deliveries have increased as per annual targets. The mean of the responses was 3.72 which was above average indicating that most of the respondents agreed to the statement. The results also indicated that 69.8% of the respondents who were the majority agreed to the statement that Hospital based maternal mortality rate have decreased as per the annual indicators. The mean of the responses was 3.79 which was above average indicating that most of the respondents agreed to the statement. Further, the results showed that most of the respondents who were 69.8% agreed to the statement that Hospital/Facility always provide services as promised. Furthermore, the results indicated that most (60.5%) of the respondents agreed to the statement that Hospital/Facility waste reduction in operations. Additionally, results indicated that 67.4% of the respondents who were the majority agreed to the statement that Hospital/Facility employee operation efficiency has improved thus reducing operation costs. Finally, the results showed that majority of the respondents who were 72.1% agreed to the statement that Hospital/Facility based infant mortality rate has decreased as per the annual targets. The mean of the responses was 3.77 which was above average indicating that most of the respondents agreed to the statement. On a five point scale, the average mean of the responses was 3.689 which means that majority of the

respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.15.

The researcher also asked respondents to state the challenges they face in adopting total quality management practices. The responses given are as shown in Table 7.

Table 7: Challenges Faced in Adopting Total Quality Management Practices.

| Themes | Percentages |
|--------------------------------|--------------------|
| Lack of government support | 22 |
| Lack of enough human resources | 35 |
| Lack of finances | 26 |
| Inadequate tools | 13 |
| Political interference | 4 |
| Total | 100 |

Source: Survey Data (2018)

The responses given indicated that most (35%) of the respondents had the challenge of lack of enough human resources, 26% said that they lack adequate finances, 22% highlighted lack of government support as a challenge, 13% said they do not have enough tools while 4% noted that adoption of TQM is hampered by political interferences.

4.3 Inferential Statistics

Inferential statistics analysis was conducted to determine the relationship between the independent variables and dependent variables.

4.3.1 Correlation Analysis

Correlation analysis was conducted to determine then strength and direction of the relationship between the independent variables and the dependent variable. Pearson's product-moment coefficient was used. The results are as presented in Table 8.

Table 8: Correlation Analysis

| | | Employee involvement | Technology adoption | Continuous improvement | Clients' focus | Service delivery |
|-------------------------------|---------------------|----------------------|---------------------|------------------------|----------------|------------------|
| Employee involvement | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| Technology adoption | Pearson Correlation | -0.007 | 1 | | | |
| | Sig. (2-tailed) | 0.963 | | | | |
| Continuous improvement | Pearson Correlation | .349* | 0.019 | 1 | | |
| | Sig. (2-tailed) | 0.022 | 0.906 | | | |
| Clients' focus | Pearson Correlation | .409** | 0.227 | 0.29 | 1 | |
| | Sig. (2-tailed) | 0.006 | 0.144 | 0.059 | | |
| Service delivery | Pearson Correlation | .562** | .343* | .621** | .604** | 1 |
| | Sig. (2-tailed) | 0 | 0.024 | 0 | 0 | |

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data (2018)

The results in Table 8 revealed that employee involvement and service delivery are positively related ($r=0.562$). The results concur with those of Bilich and Neto (2000) who established the significance of employee's involvement to the achievement of quality service delivery. Results also agree with those of Kuria (2017) who found that improvement of performance of government healthcare institutions is function of employee consultation. Further, the results indicated that technology adoption and service delivery are positively related ($r=0.343$). The results agree with Guyo (2014) who concluded that technology adoption positively and significantly influences operational efficiency. Muriuki (2011) also found that technology has a positive influence on service delivery. Furthermore, the results indicated that continuous improvement and service delivery are positively related ($r=0.621$). Douglas and Judge (2001) found a significant relationship between the degree to which continuous improvement adoption within organizations and the achievement of quality service delivery. Finally, results indicated that clients' focus and service delivery are positively related ($r=0.604$). The results agreed with those of Kangethe (2015) who found that customer quality focus positively affects service delivery.

4.3.2 Regression Analysis

Regression analysis was conducted to determine the relationship between the independent variables and the dependent variable. Table 9 presents the model fitness results.

Table 9: Model Fitness

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1 | .838a | 0.703 | 0.672 | 0.243725 |

Source: Survey Data (2018)

The results in table 9 indicated that employee involvement, technology adoption, continuous improvement and clients' focus are satisfactory variables in explaining service delivery. This was supported by a coefficient of determination (R square) of 70.3%. This meant that employee involvement, technology adoption, continuous improvement and clients' focus explain 70.3% of the variations in the dependent variable which was service delivery. The results further meant that the model applied to link the relationship of the variables was satisfactory.

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant. Table 10 provided the results on the analysis of the variance (ANOVA).

Table 10: ANOVA Results

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------|
| 1 | Regression | 5.344 | 4 | 1.336 | 22.491 | 0.000 |
| | Residual | 2.257 | 38 | 0.059 | | |
| | Total | 7.601 | 42 | | | |

Source: Survey Data (2018)

The results indicated that the overall model was statistically significant. Further, the results implied that the independent variables, employee involvement, technology adoption, continuous improvement and clients' focus are good predictors of service delivery. This was supported by an F statistic of 22.491 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. Table 11 presents the results on the regression of coefficients.

Table 11: Regression of Coefficients

| | B | Std. Error | Beta | t | Sig. |
|------------------------|--------|------------|-------|--------|-------|
| (Constant) | -1.216 | 0.569 | | -2.135 | 0.039 |
| Employee involvement | 0.289 | 0.1 | 0.292 | 2.893 | 0.006 |
| Technology adoption | 0.279 | 0.094 | 0.27 | 2.952 | 0.005 |
| Continuous improvement | 0.499 | 0.112 | 0.427 | 4.456 | 0.000 |
| Clients focus | 0.231 | 0.078 | 0.3 | 2.95 | 0.005 |

Source: Survey Data (2018)

Regression of coefficients results in table 11 revealed that employee involvement and service delivery are positively and significantly related ($\beta=0.289$, $p=0.006$). Mildred (2016) concluded that enabling employees participate and be involved in matters that affect their jobs increases job performance and overall organizational performance. Further, Tchaptchet (2013) found that employee participation has a positive impact on the effectiveness, efficiency and productivity. Results also indicated that technology adoption and service delivery are positively and significantly related ($\beta=0.279$, $p=0.005$). The results are in line with those of Mulwa (2015) who found that there exists a positive association between; adoption of ICT and service delivery. The results are also consistent with Chen and Tsou (2007) who concluded that adopting information technology has positive effects on service innovation practices, which increase the competitive advantage of firms. Further, results revealed that continuous improvement and service delivery are positively and significantly related ($\beta=0.499$, $p=0.000$). The findings are consistent with Terziovski (2001) who noted that continuous improvement is significant predictors of SME performance. Finally, results indicated that clients' focus and service delivery are positively and significantly related ($\beta=0.231$, $p=0.005$). These findings agree with the findings of Agbor (2011) who found that responsiveness, empathy and reliability were significantly related to service quality.

Therefore, the model for this study was:

Service Delivery = $-1.216 + 0.289$ employee involvement + 0.279 technology adoption + 0.499 continuous improvement + 0.231 clients' focus + 0.569 .

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

From the findings it was found that employee involvement positively and significantly affected service delivery, technology adoption had a positive and significant effect on service delivery, continuous improvement had a positive and significant relationship with service delivery and clients focus and service delivery was positively and significantly related. Regression analysis showed R square to be 0.703, this indicated that employee involvement, technology adoption, continuous improvement and clients' focus explain 70.3% of service delivery. Statistically, the overall relationship was very significant with significant value, P value = 0.000, ($P < 0.05$).

5.2 Conclusion

The study concluded that involving employees in decision making increases service delivery. Moreover, employee motivation through performance appraisals and rewards leads to improved service delivery. Adoption of technology in registration services, billing services as well as consultation and diagnosis leads to improved service delivery. Improving on goals, objectives, mission and vision leads to quality service delivery. Establishing a committee that continuously monitors and improves quality of services and encouraging creativity and innovation improves service delivery. The study also concluded that focusing on meeting and satisfying clients' needs and improving on the process leads to better services. It was possible to conclude that responding

positively to clients concerns and encouraging feedback from the clients by maintaining a good client employee relationship improves service delivery.

5.3 Recommendations

The study recommended that the Public hospital management to adopting employee involvement culture by encouraging them to develop their career, involving them in all decision making as well as motivating them through rewards and performance appraisal. The study also recommended health facilities to adopt the current technology in service delivery, the management of public health facilities to ensure a continuous improvement of service delivery and to ensure that the services rendered in these facilities are customer centered

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