

# Assessment of Capacity and Leadership Impacts on Service Delivery in Mogadishu, Somalia

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## Abstract

The study aims to determine the capacity of hospitals and the impacts of leadership on service delivery in the health sector in Mogadishu, Somalia.

**Methods:** The researcher conducted a survey health facility-based study and gathered data from four different hospitals in Wadijir and Heliwa districts, and 114 sample sizes were chosen using non-probability convenient sampling and 13 key informants, making 127 respondents in all. A self-administration questionnaire and key informant interviews were employed as part of the data collection approach. The general service capability evaluation from the Health Organization was used. To conduct the research, descriptive data analyses, frequency tables, descriptive statistics, and inferential statistics like non-parametric pairwise comparison and significance P value were employed. The data were coded in Excel and analyzed with IBM SPSS version 22.

**Result:** The most common leadership styles in hospitals were discovered to be authoritarian, bureaucratic, and managerial, all of which have an immediate impact on the quality of care provided. *Thus, the average mean score for the authoritarian leadership style is 3.94, with a standard deviation of 1.214; the average mean score for the bureaucratic leadership style is 3.73, with a standard deviation of 1.177.* The majority of healthcare experts believe that a leader's activities have the greatest impact on quality, outcome, and patient-care services, with an average mean score of 4.0 and a standard deviation of 1.219. With the exception of four items—the pharmacy, the examination room, and fridges for medications and vaccines—the current level of general facility availability and operation reveals that all hospitals have complete functionality. Although all essential medicines were provided, there was a shortage, indicating that hospital supply was irregular. **Recommendation:** The study recommended that the management of hospitals provide an effective system of evaluating leadership styles, conduct periodic assessments of management activities, and conduct training workshops for the management of hospitals.

## Keywords

Leadership, Capacity, Services, Health Sections, Hospital, Somalia

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## 1. Introduction

There is a close connection between hospital capacity and the quality of services given to patients. As hospital capacity strains during important events, such as epidemics and pandemics, the service quality of a hospital profoundly strains and thus results in a mismatch between supply and demand on any resources concerning beds, nurses, physicians, and equipment. Hospital capacity strain impacts not only the quality of care and service in hospitals but also the well-being of clinical staff and teams and their ability to do their job (Arogyaswamy et al., 2021). For example, as the number of arriving patients' peaks, the ability to expand services and beds is critical (Mahendradhata et al., 2021). Similarly, medical supplies for hospitalized patients are essential (Mahendradhata et al., 2021).

As for the quality and services, unfortunately, African countries have weaknesses in their health systems, which do not allow them to reduce the burden of diseases. The common challenges included a lack of good leadership, governance, medical products, and a healthy workforce (Othieno et al., 2013). The health institutions deteriorated because of inadequate leadership and management, variations in poor-quality care, and inefficiencies. Somalia is one of these countries that have a poor health care system. In Somalia, most managers of the health sector were doctors and nurses who had no specific management training system during their university studies.

The purpose of this research is to investigate the capacity of hospitals and the impacts of leadership on service delivery in the health sector in Mogadishu, Somalia. The first objective was to assess the capacity of three hospitals in Mogadishu, Somalia, and the second objective was to determine the impacts of leadership on health service delivery in three hospitals in Mogadishu, Somalia. The study will be significance to health policymakers, healthcare managers, and academic institutions to improve healthcare delivery in Somalia. Also, the study enabled accountable people to create functioning institutions in a well-organised manner to supply services successfully and dependably.

## 2. Literature Review

Somalia has a long history of internal conflicts, characterized by almost three decades of civil war. Currently, Somalia is among the countries in the world that are least able to cope with the health system due to low levels of access to healthcare and limited government capacity. Healthcare services are either unaffordable, unavailable, or not trusted (Ahmed et al., 2020).

On the side of investment, there is limited investment in the health sector,

with Somalia's health spending at just 1.3 percent of total government spending, which is below the 15 percent Abuja Declaration target set by African Union countries (World Bank, 2021).

Healthcare in Somalia is mostly provided by the private sector with little government intervention, resulting in Somalia having some of the lowest health and well-being statistics in the world. Long decades of conflict and insecurity, worsened by recurrent intense droughts and accompanying food insecurity, have wrecked the population's health and severely harmed the country's weak health system (WHO, 2023). Private health services and the pharmaceutical sector are largely unregulated in Somalia but could contribute to improving access and achieving universal health coverage (World Health Organization, 2019).

Maternal, neonatal, infant, and under-five child mortality rates are gradually declining, although all remain high compared to the other countries in the region. Childhood malnutrition remains a key problem. Contraceptive use is among the lowest in the world. The immunisation coverage of children in Somalia is very low. The number of children who have not received a single dose of vaccine is around 60%, which indicates a critical weakness in the coverage of primary care services (MOH, 2021).

The country is at the bottom in terms of 13 core health regulation capacities and emergency preparedness indexes, including preventing, detecting, and responding, among others (Warsame, 2020).

"There are only three government hospitals in the capital (Benadir Hospital, Madine Hospital, and de Martini Hospital), Mogadishu, and one mental hospital called Forlanini Hospital, and people often have to seek health care services at a private health facility and pay out of their own pocket very high amounts for their own treatment. Only a few people can afford these services, thereby leading to high child and maternal mortality." (United Nation, 2022)

Medical care provided by doctors and hospitals in Somalia is below average compared to the world population. The country provides 0.9 hospital beds per 1000 inhabitants. The global mean here is 2.9 beds. Within the EU, 4.6 beds are available for every 1000 residents. With about 391 physicians in Somalia, there are about 0.02 doctors per 1000 inhabitants (Worlddata, 2023).

Surge capacity has four elements: 1) staff (medical personnel, doctors, nurses, pharmacists), stuff (equipment, supplies), structures (hospitals), and systems (successful coordination and management of various levels of the healthcare). All elements should be considered together (Izmirlieva, 2020).

Capacity planning is a crucial component of healthcare governance. Hospital capacity planning involves several dimensions: capital investment in existing facilities and new developments; investment in expensive equipment and technology (such as magnetic resonance imaging service delivery); and allocation of human and financial resources. However, healthcare capacity planning takes place at national, regional, or local levels, reflecting the various tiers of government within health systems (Dubas-Jakóbczyk et al., 2018). Increases in patient needs can strain hospital resources, which may worsen care quality and out-

comes. Moreover, hospital capacity strain is associated with increased mortality and worsened health outcomes in highly developed countries. Evidence-based solutions to improve outcomes during times of capacity strain are needed (Eriksson et al., 2017).

Smith et al. (2018) have reviewed evidence on the nature of effective leadership in inter-professional health and social care teams. They found twelve themes: facilitating shared leadership; transformation and change; personal qualities; goal alignment, creativity, and innovation; communication; team building; leadership clarity; direction-setting; external liaison; skill mix and diversity; and clinical and contextual expertise. They also summarized that effective inter-professional health leadership requires a unique blend of knowledge and skills that support innovation and improvement in health service delivery (Smith et al., 2018).

Australia's prepared health leadership framework also mentions the importance of innovation; they wrote that innovation has also been evident as Health Lead Australia has been integrated into existing academic curricula and new professional development offerings (Shannon & Sebastian, 2018). Malila et al. (2017) studied a review of authentic leadership in healthcare. The four research themes include well-being, patient care quality, work environment, and authentic leadership promotion (Malila et al., 2017). Other scholars also found that incorporating leadership competencies and evidence-based leadership training strengthens students' clinical skills, enhances workforce development, and increases interdisciplinary healthcare practices (McGrath et al., 2019).

The use of management practice or leadership style as an indicator of a healthcare organisation's performance means types of health service delivery, ways of satisfying patients, and outcomes of healthcare organisations will be the measuring points of each health management. So, health managers must be competent and have the leadership skills to support innovation and improvement initiatives.

### **3. Methods and Materials**

#### **3.1. Design and Study Area**

The researcher conducted a survey-based health facility study in two districts (Wadjir and Heliwa) of Mogadishu's Benadir region between September 4 and December 25, 2023. Somalia is an East African country with 18,143,378 inhabitants (Worldometer, 2023). Bordered on the west by Ethiopia, on the southwest by Kenya, on the north by the Gulf of Aden, on the east by the Indian Ocean, and on the northwest by Djibouti, Somalia has the longest coastline in all of continental Africa. Wadajir District, also called Medina District, is located in the south-central Banaadir region of Somalia. The district is home to three hospitals: Benadir Hospital, Madina Hospital, and Aden Abdulle Hospital. The district is home to several hospitals. The SOS Hospital (Save ourselves), located in Heliwa district, is managed by an international agency and located on the north side of

Mogadishu, Benadir region, Somalia.

### 3.2. Study Areas

The study area, which includes four different hospitals, is such that two of them are managed by the government (Madina and Benadir Hospitals), while the fourth is Aden Abdulle Hospital, which is a private hospital. The three selected hospitals—the private Aden Abdulle Hospital, the teaching Benadir Mother and Child Hospital, and Madina Hospitals—are situated in the Wadajir district in the Benadir region of Somalia.

**Banadir Hospital** serves as a public teaching hospital, a mother-and-child hospital, and a nationwide referral hospital. The hospital was constructed in 1976 as a component of a larger set of facilities as part of a Chinese government development project for Somalis. The hospital has 550 to 700 beds and is managed by the FMOH. Overall, 398 people work there, counting non-medical staff. Because Banadir Hospital is a referral hospital for the most vulnerable sections of society, more than 3000 people use its medical services each month.

**Aden Abdulle Hospital** A private hospital owned by the son of the ex-president of Somalia, Aden Abdulle Osman (Aden Adde), Aden Abdulle Hospital (AAH) is a non-governmental organisation that works to improve public health by offering suitable, reasonably priced, and high-quality inpatient and outpatient care. The address of Aden Abdulle Hospital is KM5 Wadajir District, Mogadishu, Somalia. In a city in need of urgent medical attention, Aden Abdulle Hospital (AAH) was founded on September 9, 2007, and today it stands as one of the largest general medical facilities in Mogadishu.

**Madina Hospital** is one of the two main medical facilities. In Mogadishu, emergencies are handled by Medina Hospital, a specialised medical centre. It treats several hundred war-wounded patients and expectant mothers each month, with an emphasis on trauma and emergency maternal care. One of the four hospitals in Somalia is supported by foreign organisations but is run by the Somali Police Forces.

**SOS Hospital** is a non-governmental hospital administered by the SOS Children's Villages International agency. The hospital focuses on child and maternal health and is located in the Heliwa district of Mogadishu, Somalia. For nearly 30 years, the SOS Mother and Child Hospital has delivered life-saving care to Somalis. The hospital, which began as a modest clinic in 1986, stayed operating even during the intense warfare that followed the government's demise in 1991.

### 3.3. Sample Size

Slovene's Formula is used to calculate the sample size from a population, resulting in a sample size of 114 out of a total population of 160. The sample was picked using a non-probability with convenient sampling approach. Because workers may be busy or patients may visit during a specific time. So that they are the easy for the researcher to access and 13 key informants were interviewed, for

a total sample size of 127 respondents. As a result, each institution received an unequal number of responses because the researcher obtained ethically informed consent from each subject before completing the questionnaire.

### 3.4. Data Collection

The data collection method used a self-administration questionnaire and interview with key informants to gather data. To make sure the surveys were correctly filled out, the researcher and survey team went over the completed forms with the respondents. The questionnaire was designed to be short, simple, and logically arranged, using WHO's general service capability assessment tools and Sarpong, et al., (2022) article to assess capacity and leadership's impact on services (Indicators, 2010) (Sarpong et al., 2022). The survey received a high response rate, with 94% (114 out of 125), and only 9% of the respondents were dropped out.

### 3.5. Ethical Consideration

Hope University's Research Ethics Committee granted ethical permission. The permission to perform the study was obtained as well from the Academic Directors, Mr. Abdirahman Mohamud Sh. Ahmed. Participants provided informed consent after being explained the study's objectives. Participants were promised that their participation was entirely voluntary, and their confidentiality and privacy would be protected.

### 3.6. Data Analysis

The data were coded in Excel and analysed in IBM SPSS version 22, so for the research, descriptive data analyses, frequency tables, descriptive statistics, and inferential statistics such as non-parameter pair-wise comparison and significance *P*-value were used. The confidence interval is 95% with significance *P*-value .05. So simply, a researcher presents a reliability scale to measure the consistency of data by using Cronbach's alpha, so if the data consistency is over 60%, it means accurate or reliable data.

**Table 1.** Reliability statistics.

Reliability Statistics	
Cronbach's Alpha	N of Items
.859	62

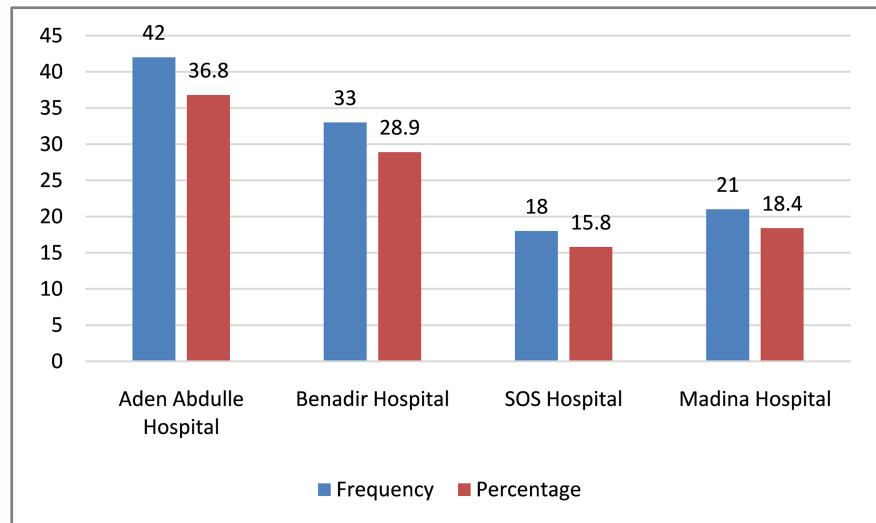
In **Table 1**, the study's reliability test result was .859, indicating that the data were consistently very accurate or dependable.

## 4. Result

After demographic characteristics and hospital frequency, the data is divided into three sections: the first section describes each hospital's overall capacity to

provide health services (staff, essential medications, and infrastructure); the second section assesses the effects of leadership; and the third section will have subsections. The third section discusses qualitative data interpretation.

#### 4.1. Places and Demographic Variables



Primary data.

**Figure 1.** Hospitals and frequency and percentages.

**Figure 1**, the researcher visited four different hospitals, including Benadir Hospital 42 (36.84%), Aden Abdulle Hospital 33 (28.92%), SOS Hospital 21 (18.42%), and Madina Hospital 18 (15.79%), to compile the demographic variables that are displayed in this table. Because three of the hospitals were public and the fourth was private, these were specifically chosen.

**Table 2.** Demographic variables of sex, age and marital status.

<b>Sex of respondents</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	65	57.0	57.0	57.0
	Female	49	43.0	43.0	100.0
	Total	114	100.0	100.0	
<b>Age of respondents</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 25	50	43.9	43.9	43.9
	25 - 30	40	35.1	35.1	78.9
	30 - 35	17	14.9	14.9	93.9
	35 - 40	6	5.3	5.3	99.1
	40 - 45	1	.9	.9	100.0
	Total	114	100.0	100.0	

## Continued

Marital Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	66	57.9	57.9	57.9
	Married	44	38.6	38.6	96.5
	Divorced	4	3.5	3.5	100.0
	Total	114	100.0	100.0	

**Table 3.** Educational level and experience of respondents.

Educational Level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	6	5.3	5.3	5.3
	Bachelor	83	72.8	72.8	78.1
	Master	25	21.9	21.9	100.0
	Total	114	100.0	100.0	
No years of experience		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than one year	17	14.9	14.9	14.9
	1 - 5 years	68	59.6	59.6	74.6
	6 - 10 years	20	17.5	17.5	92.1
	11 and Above	9	7.9	7.9	100.0
	Total	114	100.0	100.0	

Primary data.

Male respondents outnumbered female respondents in **Table 2** by a percentage of 49 (42.98%) and 65 (57.02%), respectively. The majority of responders were young; among the first group, 50 (43.86%) were between the ages of 20 and 25; the second group, 25 - 30, 40 (35.09%); the third group, 30 - 35, 17 (14.91%); the fourth group, between; 35 - 40, 6 (5.26%); and the last, among those between the ages of 40 and 45, 1 (.88%) (**Table 3**). Also in **Table 3** include by Marital status, As 44 (38.60%) of the respondents were married and 66 (57.89%) were single, the majority of respondents—who were either health workers or young members of unmarried groups—were single. Based on **Table 3**, it can be observed that 83 (72.81%) health workers possess a bachelor's degree, while 25 (21.93%) have a master's degree, and 6 (5.26%) are members of small groups with diploma holders. The respondents' experience ranged from 1 to 5 years for 68 (59.65%), 6 to 10 years for 20 (17.54%), less than a year for 17 (14.91%), and above 9 (7.89%) for minority groups. These results show that the experience of the more senior respondents was less than that of the less experienced ones.

#### 4.2. Assessment of the Capacity of Hospital

The researcher then went on to discuss the hospital's overall capacity to provide

healthcare services by gathering data on the availability of necessary medications, facilities, and personnel. Such matters are significant and have an effect on the communities' access to health services.

#### 4.2.1. Available and Functionality of General Facilities

**Table 4.** Available and functionality of general facilities.

<i>General Facilities in all Hospitals</i>			
	Fully functional	Not available	Partially functional
<i>Water (Pipelines)</i>	114 (100.0%)	-	-
<i>Electricity/solar</i>	114 (100.0%)	-	-
<i>Radio/telephone for communication</i>	114 (100.0%)	-	-
<i>Fridge for drugs and vaccines</i>	88 (77.2%)	-	26 (22.8%)
<i>Dispensary (pharmacy)</i>	97 (85.1%)	-	17 (14.9%)
<i>Separate delivery/maternity room</i>	114 (100.0%)	-	-
<i>Operational theater Room</i>	114 (100.0%)	-	-
<i>Different in patient Wards</i>	114 (100.0%)	-	-
<i>Radiology</i>	114 (100.0%)	-	-
<i>Management Rooms</i>	114 (100.0%)	-	-
<i>Toilet for patients and staff</i>	114 (100.0%)	-	-
<i>Mortuary room</i>	114 (100.0%)	-	-
<i>Counseling room</i>	74 (64.9%)	30 (26.3%)	10 (8.8%)
<i>Examination room</i>	82 (71.9%)	-	32 (28.1%)
<i>Ambulance/vehicle</i>	114 (100.0%)	-	-
<i>Bungalows for staff</i>	114 (100.0%)	-	-

**Table 4** lists the general facilities' current availability and functionality. The majority of them were fully operational and all respondent agreed 114 (100.0%), with the exception of four variables: the pharmacy, the examination room, and the fridge for drugs and vaccines. These three variables have percentages of 26 (22.8%), 17 (14.9%), and 32 (28.1%), respectively, that indicate how fully operational they are, but only partially so. Additionally, a fraction of 30 hospitals (26.3%) lacked counselling rooms.

**Table 5.** Facilities, hypothesis test summary.

<i>Null hypothesis</i>	<i>Test</i>	<i>Sig a.b</i>	<i>Decision</i>
<i>Fridge for drugs and vaccines</i>	One-Sample Binomial Test	<.001	Reject the null hypothesis.
<i>Dispensary (pharmacy)</i>	One-Sample Binomial Test	<.001	Reject the null hypothesis.
<i>Counseling room</i>	One-Sample Binomial Test	.002	Reject the null hypothesis.
<i>Examination room</i>	One-Sample Binomial Test	<.001	Reject the null hypothesis.

**Table 5**, the null hypothesis, according to which Mogadishu's healthcare providers lacked functional general facilities, was rejected in its entirety, the Fridge for drugs and vaccines, Dispensary (pharmacy) and Examination room have the Significance  $P$  value  $< .001$ , while Counseling room has  $P$  value  $< .002$ . These facilities were essential to the provision of high-quality healthcare services, and their absence would have affected both the continuity and quality of those services. Therefore, as compared to other variables, the four that have partial functionality—the availability of a refrigerator for medications and vaccinations, the pharmacy, the counselling room, and the examination room—have a lower proportion.

#### 4.2.2. Essential Medicines

**Table 6.** Medicines, Standard 14 essential medicines.

<i>Available of Standard 14 essential medicines</i>			
	Enough	Not Available	Not Enough
<i>Asthma Salbutamol .1 mg/dose inhaler</i>	95 (83.3%)	-	19 (16.7%)
<i>Diabetes Glibenclamide 5 mg capsule/tablet</i>	82 (71.9%)	-	32 (28.1%)
<i>Cardiovascular disease Atenolol 50 mg capsule/tablet</i>	62 (54.4%)	-	52 (45.6%)
<i>Cardiovascular disease Captopril 25 mg capsule/tablet</i>	59 (51.8%)	-	55 (48.2%)
<i>Cardiovascular disease Simvastatin 20 mg capsule/tablet</i>	64 (56.1%)	-	50 (43.9%)
<i>Depression Amitriptyline 25 mg capsule/tablet]</i>	75 (65.8%)	-	39 (34.2%)
<i>Infectious disease Ciprofloxacin 500 mg capsule/tablet]</i>	97 (85.1%)	-	17 (14.9%)
<i>Infectious disease Co-trimoxazole 8 + 40 mg/ml suspension]</i>	99 (86.8%)	-	15 (13.2%)
<i>Infectious disease Amoxicillin 500 mg capsule/tablet]</i>	101 (88.6%)	-	13 (11.4%)
<i>Infectious disease Ceftriaxone 1 g/vial injection</i>	97 (85.1%)	-	17 (14.9%)
<i>Central nervous system diseases Diazepam 5 mg capsule/tablet</i>	94 (82.5%)	-	20 (17.5)
<i>Pain/inflammation Diclofenac 50 mg capsule/tablet]</i>	104 (91.2%)	-	10 (8.8%)
<i>Pain/inflammation Paracetamol 24 mg/ml suspension</i>	101 (88.6%)	-	13 (11.4%)
<i>Ulcer Omeprazole 20 mg capsule/tablet</i>	87 (76.3%)	-	27 (23.7%)

Primary data.

**Table 6** lists every necessary medication that hospitals need to have on hand. Because not all medications were available, hospital supplies were inconsistent, even if they were all present. The cardiovascular drugs (Captopril 55 (48.2%), Atenolol 52 (45.6%), Simvastatin 50 (43.9%)), Depression Amitriptyline 39 (34.2%) and Diabetes Gilberncamide 32 (28.1%) were not enough. **Table 7** lists the five necessary medications. Of these, three—Atenolol 50 mg capsule/tablet, Captopril 25 mg capsule/tablet, and Simvastatin 20 mg capsule/tablet—retain the null hypothesis, indicating that their use was insufficient in all hospitals. The remaining medications, on the other hand, reject the null hypothesis with significant  $P$  values of .303, .779, and .16, respectively.

**Table 7.** Essential medicine - Hypothesis test summary.

<i>Null hypothesis (Not Available)</i>	<i>Test</i>	<i>Sig a.b</i>	<i>Decision</i>
<i>Asthma Salbutamol .1 mg/dose inhaler</i>	One-Sample Binomial Test	<.001	Reject the null hypothesis.
<i>Diabetes Glibenclamide 5 mg capsule/tablet</i>	One-Sample Binomial Test	.000	Reject the null hypothesis.
<i>Atenolol 50 mg capsule/tablet</i>	One-Sample Binomial Test	.303	Retain the null hypothesis.
<i>Captopril 25 mg capsule/tablet</i>	One-Sample Binomial Test	.779	Retain the null hypothesis.
<i>Simvastatin 20 mg capsule/tablet</i>	One-Sample Binomial Test	.16	Retain the null hypothesis.

#### 4.2.3. Available Staff in the Hospital

Physician assistants and midwives were insufficient, according to **Table 8**, which showed doctors, nurses, chemists, lab technicians, accountants, labourers and security personnel as being sufficient. Not all hospitals had access to the remaining physical and occupational therapists, and others did not have nutritionists or dieticians.

**Table 8.** Availability of staffs in all hospitals.

<i>AVAILABLE STAFFS IN HOSPITALS</i>			
	Enough	Not Available	Not Enough
<i>DOCTORS</i>	114 (100.0%)	-	-
<i>NURSES</i>	114 (100.0%)	-	-
<i>MIDWIVES</i>	96 (84.2%)	-	18 (15.8%)
<i>PHARMACISTS</i>	114 (100.0%)	-	-
<i>PHYSICIAN ASSISTANTS</i>	73 (64.0%)	-	41 (36.0%)
<i>LABORATORY TECHNICIANS</i>	114 (100.0%)	-	-
<i>PHYSICAL AND OCCUPATIONAL THERAPISTS</i>	-	114 (100.0%)	-
<i>DIETICIANS</i>	52 (45.6%)	62 (54.4%)	-
<i>ACCOUNTANT</i>	114 (100.0%)	-	-
<i>LABOURERS</i>	114 (100.0%)	-	-
<i>SECURITY PERSONNEL</i>	114 (100.0%)	-	-

Primary data.

**Table 9** presents the significant *P* value of three staffs, which include midwives, physician assistants, and dieticians, while physical and occupational therapists are not available in all hospitals.

**Table 9.** Availability of staffs - Hypothesis Test Summary.

<i>Null hypothesis</i>	<i>Test</i>	<i>Sig a.b</i>	<i>Decision</i>
Not available - Midwives	One-Sample Binomial Test	<.001	Reject the null hypothesis.
Not available - Physician Assistants	One-Sample Binomial Test	.64	Retain the null hypothesis.
Not available - Dieticians	One-Sample Binomial Test	.223	Retain the null hypothesis.

Primary data.

#### 4.2.4. Key Informants Interviews—Capacity of Hospitals

##### 1) What are the less resources/insufficiency resources in your hospital?

- According to a few important informants, the hospital lacks a cardiac unit, modern emergency equipment, a blood bank, and enough training for some staff members.
- According to further informants, “the fewer resources are inadequate staffing levels, fewer beds in facilities, fewer medical equipment, inadequate financial resources, fewer medications and supplies, and inadequate information technology (IT) infrastructures.”
- The last group stated a “shortage of medical supplies, hospital beds, and healthcare professionals.”

##### 2) What factors lead to a shortage of medication, and fewer beds?

- Key informants stated that “the lack of the health instrument industry in the country and the scarcity of biomedical equipment firms are among the contributing factors.”
- “Resource Constraints, Increasing Patient Demand, Inefficient Bed Management, Supply Chain Issues, Regulatory and Administrative Factors, and Overcrowding Factors,” stated other informants.
- The final groups stated that “administrative priority, supply chain constraints, and resource limitations are the main factors.”

### 4.3. Leadership

#### 4.3.1. Predominant Leadership Style in Hospitals

The results in **Table 10** show that the standard deviation is 1.228857 and the overall cumulative mean score is 3.635714. It is quite wide and dispersed about the mean. Thus, the average mean score for the authoritarian leadership style is 3.94, with a standard deviation of 1.214; the average mean score for the bureaucratic leadership style is 3.73, with a standard deviation of 1.177; the average mean score for the participatory leadership style is 3.71, with a standard deviation of 1.127; and the average mean score for the managerial leadership style is less than 3.72, with a standard deviation of 1.216.

**Table 10.** Descriptive statistics - Common Leadership style exhibit in Hospitals in Mogadishu, Somalia.

Descriptive Statistics	Mean	Std. Deviation	Interpretation
Leadership style is Authoritarian	3.94	1.214	Agreed
Leadership style is Bureaucratic	3.73	1.177	Agreed
Leadership style is Participative	3.71	1.127	Agreed
Leadership style is Relation-oriented	3.46	1.291	Agreed
Leadership style is Paternalistic	3.39	1.238	Neutral
Leadership style is Managerial	3.72	1.216	Agreed
Leadership style is Visionary	3.50	1.339	Agreed
<b>Total accumulative Average of Mean and Std.</b>	<b>3.635714</b>	<b>1.228857</b>	

Primary data.

### 4.3.2. The Leadership Actions and Their Impacts on Health Services in Hospitals in Mogadishu, Somalia

The cumulative average mean score of 3.604 and the cumulative average standard deviation of 1.2212 are shown in **Table 11**'s results. It appears that most respondents felt that a leader's communication style, behaviour, delayed salary payment, poor working conditions, unequal promotion, and lack of participation in decision-making were significant leadership actions that had an impact on hospital health services. A significant majority of participants expressed strong agreement that the conduct and communication of leaders have an impact on health services.

**Table 11.** Descriptive statistics - Some Leadership actions causing impacts on Health services in Hospitals in Mogadishu, Somalia.

Descriptive Statistics			
	Mean	Std. Deviation	Interpretation
Leaders behavior and Communication	4.11	.948	Strongly agreed
Delay payment of salary	3.69	1.284	Agreed
Create Poor working conditions	3.30	1.481	Neutral
Promotional Inequity	3.31	1.270	Neutral
Non-involvement in decision-making	3.63	1.123	Agreed
<b>Total accumulative Average of Mean and Std.</b>	<b>3.608</b>	<b>1.2212</b>	Agreed

Primary data.

**Table 12.** Descriptive statistics - Impact of above Leadership actions on Health services Delivery in Hospitals in Mogadishu, Somalia.

Descriptive Statistics			
	Mean	Std. Deviation	Interpretation
Leadership can Impacts patients caring services	4.00	1.219	Strongly agreed
Leadership Can Impacts Employees Performance	3.66	1.088	Agreed
Leadership Can adversely Impacts Quality and outcome of services	3.75	1.301	Agreed
Leadership can impacts loss of employees' Motivation and Commitments	3.53	1.235	Agreed
<b>Total accumulative Average of Mean and Std.</b>	<b>3.735</b>	<b>1.21075</b>	

Primary data.

The overall cumulative average mean score of 3.735 and the standard deviation of 1.21075 in **Table 12**'s results show that the data are more dispersed around the mean. In order for it to be widely accepted that the activities of leaders can impact patient care services, the leadership can impact patient care services with an average mean score of 4.0 and a standard deviation of 1.219.

### 4.3.3. Pairwise Comparisons of Four Different Hospitals

In **Table 13**, the comparison of the four hospitals revealed that, when it came to promoting equality, there were highly significant differences between Madina and SOS Hospital, Madina and Aden Abdulle Hospital, and Benadir and Aden

Abdulle Hospital, as well as between Benadir and SOS Hospital. However, there were no significant differences between Madina Hospital and Aden Abdulle Hospital or between Benadir Hospital and SOS Hospital. This indicates that the characteristics of Madina and Benadir Hospital are the same.

**Table 13.** Pairwise comparisons of hospitals.

Sample 1-Sample 2	Pairwise Comparisons of Hospitals				
	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. <sup>a</sup>
Madina Hospital-Benadir Hospital	4.595	8.946	.514	.607	1.000
Madina Hospital-Aden Abdulle Hospital	23.405	8.565	2.733	.006	.038
Madina Hospital-SOS Hospital	25.179	10.294	2.446	.014	.087
Benadir Hospital-Aden Abdulle Hospital	18.810	7.455	2.523	.012	.070
Benadir Hospital-SOS Hospital	-20.583	9.390	-2.192	.028	.170
Aden Abdulle Hospital-SOS Hospital	-1.774	9.028	-.196	.844	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .050. a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

#### 4.3.4. Key Informants - Interviews

##### 1) What leadership activities affect both personnel and healthcare services in your hospital?

- After being interviewed, key informants stated that “the leadership actions that can impact the health services include a lack of clear communication, support, and empowerment, setting clear goals, collaboration and teamwork, and recognition and appreciation.”
- Others stated, “There is a lack of consistently requiring safe, high-quality, compassionate care to be a top priority,” and
- The final group stated, “Lack of awareness of level of self, team, and organizational dynamics and ensuring a ready supply of replacement and maintaining organizational progress.”

##### 2) How do these leadership activities affect hospital services?

- According to key informants, “leaders can influence by improving team efficiency and productivity, staff satisfaction, and advancing hospital performance.”
- Other informants stated that “it can improve employee engagement, teamwork and interdisciplinary collaboration, patient care quality, staff turnover, and retention.”
- Other groups stated that leadership can have an impact on situation awareness, task management, error management, and staff performance management.”

## 5. Discussion

The first objective of the study was to assess the hospital’s capacities, which in-

cludes determining whether general facilities are operational and available, as well as whether essential medicines and medical staff are available. The current state of general facility availability and functionality shows that all hospitals are fully functional, with the exception of four items—the pharmacy, the examination room, and the fridge for medications and vaccines. Additionally, some hospitals do not have counselling rooms (**Table 4**).

Additionally, this investigation showed that although all essential medicines were available, there was a shortage, indicating inconsistent hospital supply (**Table 6**). Three of them—Atenolol 50 mg capsule/tablet, Captopril 25 mg capsule/tablet, and Simvastatin 20 mg capsule/tablet—seemed insufficient at all hospitals, whereas the remaining medications showed notable variations.

Once more, it was discovered that there was ample staff available, with the exception of midwives and physician assistants. Not all hospitals had access to physical and occupational therapists, and others did not have dieticians. This suggests that staff availability does not have a significant impact on health care. However, the question's null hypothesis was rejected, meaning that while all staff members were available, the staff members of dieticians and physician assistants were not significant, therefore their null hypothesis was retained (**Table 8**).

Which resources are lacking or insufficient in your hospital? When questioned, a few key informants claimed that the hospital lacked a blood bank, a cardiac unit, advanced emergency equipment, and enough training for certain staff members. Additional informants include “inadequate staffing, facilities, medical equipment, inadequate financial resources, medications and supplies, and inadequate information technology (IT).”

What causes a lack of prescription drugs and fewer hospital beds? We were also questioned. Key informants said “the lack of the health instrument industry and biomedical equipment firms are among the contributing factors.” While some informants mentioned “administrative and overcrowding factors,” others mentioned “resource constraints, increasing demand, supply chain issues, and inefficient bed management.”

In the second objective, it was found that the most common leadership styles in hospitals are authoritarian, bureaucratic, and managerial, all of which have an immediate effect on the quality of care provided (**Table 10**). The opinions of the workers, the actions and communication of the leaders, the tardiness of worker wage payments, subpar working conditions, unequal opportunities for advancement, and a lack of involvement in decision-making are some of the main variables that have an impact on hospitals (**Table 11**).

This result is in line with the results of [Aberese-Ako et al. \(2014\)](#), who found that frontline health workers in Ghana believe that policies and Organisational issues are unfair, which has an impact on their motivation and ability to provide effective care for mothers and newborns ([Aberese-Ako et al., 2014](#)). However, workers who are intrinsically motivated can overcome these obstacles and deliver quality care. When comparing the hospital's working conditions to measure promotion equality, equality is present (**Table 12**). According to [Manyisa and](#)

van Aswegen (2017), the main causes of the unfavourable working conditions in public hospitals include the heavy workload, the pandemic of diseases, shift work, lengthy workdays, inadequate resources, and staff scarcity (Manyisa & van Aswegen, 2017). So that there were highly significant differences between Madina and SOS Hospital, Madina and Aden Abdulle Hospital, Benadir and Aden Abdulle Hospital, and Benadir and SOS Hospital (Table 13).

Consequently, that implies the Benadir and Madina hospitals are completely distinct from each other. Researchers talk to employees about how the activities of those leaders may affect hospital services; specifically, how a leader's style may affect patient care, employee performance, service quality and outcome, and employee commitment and motivation. The majority of healthcare professionals said that a leader's actions primarily affect the quality, outcome, and patient-care services. Specchia et al. (2020), found that leadership styles significantly impact nurses' job satisfaction, which in turn positively or negatively impacts healthcare quality and patient outcomes (Specchia et al., 2020). Key informants said after being interviewed, "The leadership actions that can impact the health services include a lack of communication, setting goals, collaboration, and recognition," and others pointed out the "lack of consistently high-quality, compassionate care as a top priority."

How do these leadership actions impact hospital services? Was another question posed by key informants; they responded that "leaders can influence by improving team, staff, and performance." According to additional sources, "it can improve patient care, teamwork and collaboration, and employee engagement." Other groups' responses included "can affect awareness, staff performance management, and task and error management."

One of the study's weaknesses is that some respondents declined to answer our questionnaire as a result of concern for their employment, and some hospital key informants suppressed factual information. The sample size was much smaller than the hospital staff as a whole, but it was still enough. The study proposed employing two or more instruments at the same time. We employed certain capacity assessment techniques.

## 6. Conclusion and Recommendation

The study concludes that the availability and functionality capacity of hospitals had a strong positive impact on health services in general, but essential medicine was not enough in general, and all staff were sufficient except for three occupations: physician assistance, dieticians, and physical occupational and therapists. The activities of the leader have a detrimental impact on both the employees and the health services as a whole, but there are always ineffective leadership styles that need to be modified in all hospitals to lessen the effects of these existing styles on the entire health service.

This study therefore recommends that management of hospitals provides an effective system of evaluating leadership styles and periodical assessment of management activates and makes training workshops for the management sys-

tem of hospitals. It is also recommended to elaborate on other assessment tools to provide more detailed data; finally, recommend to the Minister of Health that a standard assessment be set for public and private hospitals to check the availability and functionality of the services.

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### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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