

# The Role of Service Quality in Patients (Customer) Satisfaction in Public Healthcare Institutions in Ghana

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**Abstract:** The aim is to investigate whether the effective service quality delivery leads to customers' satisfaction and to find the extent of service quality adoption among public healthcare institutions in Ghana. Data was collected from public healthcare delivery respondents in health administration in Ghana. There are 252 respondents from public healthcare institutions (healthcare administrators, medical doctors, nursing officers, and patients). Purposive sampling was utilized to select the participated healthcare players. With the use of self-completion structured questionnaires, primary data was collected from respondents and analyzed using frequencies, mean, and standard deviation. The structured questionnaire used consisted of multiple choice and Likert Scale questions. Furthermore, secondary sources were also used. Results showed that 55% healthcare participants stated service quality adoption in public healthcare institutions to be medium, followed by 45% of respondents to be high. The study concluded that marketing mix adoption among public healthcare institutions in Ghana is medium. Also, there is a fairly good relationship between patients (customers) satisfaction, and service quality and hence effective adoption of service quality leads to customer satisfaction.

**Keywords:** Service quality, Patient satisfaction, Public Healthcare Institutions

## 1. Introduction

Quality healthcare delivery is one of the most critical things in the life of humans. Once patients' needs/wants keep changing, therefore, the methods of delivering service quality in healthcare also have to change to satisfy patients (customers). According to World Health Organization (2013) report, there is a growing cry in many developing countries in sub-Sahara Africa for healthcare improvement in citizens' healthcare area. Service quality is an essential tool for improving and differentiating healthcare in healthcare institutions.

Despite the fact that service quality global recognition and acceptance is a satisfaction tool, its effectiveness in public healthcare institutions is under research. This means that both service quality and patients (customers) satisfaction should be seen as multi-dimensional constructs (Sureschander et al. 2001). Lee et al. (2000) also argued that customer satisfaction is dependent on the degree of service quality given by a service provider. In other words, for patients' and other healthcare stakeholders' satisfaction to be realized, service quality application has to be given within the needed recognition and attention.

A complete implementation of service quality concepts would assist the effectiveness of patient's satisfaction in public healthcare institutions. Research has proven that there is a relationship between customer satisfaction and service quality (Sureschander et al. 2001). According to Douglas and Connor (2003), service quality is not only a measure of the end result but it is also how it is delivered during the service process and its impacts on customer satisfaction. For public healthcare institutions to fully satisfy patients (customers) needs/wants it is vital to fill the gap created by doubts about service quality applicability to have the same positivity in developing countries like their counterparts in the advanced countries. As public healthcare institutions seek

to enhance service quality and patients (customers) satisfaction, so they should have the establishment of long-lasting win-win relationship as a top priority.

Some considerable efforts have been geared towards service quality application in public healthcare institutions in Ghana to enhance patients (customers) satisfaction. Despite the fact that service quality plays an essential role in patients (customer) satisfaction, very little attention has been paid to this subject within published research literature in developing countries particularly in sub-Sahara Africa. The lack of enough efforts towards effective service quality delivery in terms of patients (customers) satisfaction within public healthcare administration creates a gap in academic literature. This study thus wants to assess the vital knowledge and experiences of public healthcare practitioners and patients, additionally, to examine the role of service quality in achieving patients (customers) satisfaction in today's healthcare delivery in Ghana.

## **2. Overview of Research Literature**

### **2.1 Marketing in General**

According to Scammell (1999) among the various definitions of marketing, the marketing mix concept (customer-oriented approach), and the notion of exchange plays a central role. Marketing is about finding and meeting social needs while being profitable at the same time (Kotler and Keller, 2014). American Marketing Association (2014) defined marketing as the activity, set of institutions and processes for establishing, communicating, delivering and exchanging offerings that have value for customers and larger, societal needs in both short and long terms. Kotler and Keller (2014) stated that marketing is an art and science of selecting the segment, getting, keeping, and growing customers through creation, delivery and communication of superior customers' value.

### **2.2 Service Quality**

According to Gummesson (1994) Service quality implies management paradigm that deals with service management in the area of marketing which emphasises the importance of customer interaction with service provider in giving service and creating value for money. Edvardsson (1988) stated that service quality should be seen from customers' lenses because it is the total customers' perception of the result which shape service delivery. Edvardsson (1988) further argued that customer participation in service delivery process makes him/her co-producer of the service, therefore, high value and quality considerations should guide its delivery.

According to Ladhari (2008), service quality is an essential tool for a firm's struggle to differentiate itself from competitors. In other words, service quality is the differential between customers' expectations for service performance before service experience and their perception of the service received. Customers' expectations act as the basis on which evaluation of service quality is done. This is normally on the high side when performance is more than expectation. On the other hand, quality is low when performance is less than expected (Asubonteng et al, 1996).

### **2.3 Service Quality in Healthcare**

Service quality is the appropriate foundation upon which healthcare delivery wants to satisfy patients (customers) needs/wants. The key reason why service quality is the foundation is because it offers results that patients (customers) value. In public healthcare, service quality and patients (customers) satisfaction are intertwined.

An increase in the demand for public healthcare in Ghana is a result of the National Health Insurance Scheme (NHIS) which was initiated in 2003. Since then, this development has put pressure on successive governments over the years to enhance service quality in public healthcare institutions to guarantee patients (customers) satisfaction.

### **2.4 Patients' Satisfaction**

Kotler (2014) said satisfaction is the feeling of happiness because one has something or has achieved something of value. Kotler and Armstrong (2014) added that satisfaction is a state of happiness or disappointment that comes from the comparison of a perceived performance of a product relative to its expectations. They continue by saying that satisfaction is an action which

is meeting a genuine, desire, demand and expectation. According to Gronroos (1982) and Parasuraman et al. (1985), customers' perception of service quality is dependent on comparison of his/her expectation with their perceptions of the performance of the service provider. Parasuraman et al. (1985) explained the expectations differ in both satisfaction and service quality lenses. In satisfaction lenses, the expectation is considered as prediction by consumers about what is likely to happen during a specific customer transaction while service quality angle refers to desires or wants of customers.

### **3. Methodology**

Data was collected from public healthcare institutions respondents, namely healthcare administrators, medical doctors, nursing officers, other healthcare practitioners and, patients within the healthcare administration in Ghana. In total, 252 respondents were selected from public healthcare institutions; teaching hospital, regional hospital, district hospital, psychiatric hospital, and poly clinics and, others. 21 public healthcare administrators, 22 medical doctors, 125 nursing officers, 6 other public healthcare professionals and 78 patients were surveyed. Data was collected through a set of self-completed questionnaires to public healthcare practitioners that permitted respondents to complete them at their own free time to lessen interruptions to their healthcare activities. The set of questionnaires dealt with the role of service quality and patients' satisfaction within public healthcare setting. The questionnaires was developed in such a way that the structure, focus and phrasing of questions was intelligible with respondents, reduced bias and provided data that could be statistically analysed (Gill and Johnson, 2006). Both multiple choice questionnaire structure and a five-point Likert scale were utilized. Closed-ended questions were also used to collect more in-depth data. Total of 265 questionnaires were sent out, out of which 252 questionnaires returned representing 95% of return rate. Non-probability purposive sampling method which consists of a selection of respondents with knowledge and experience in service quality and patients' satisfaction was utilized. Lastly, quantitative data was analysed using Statistical Packages for Social Science (SPSS) version 21 and Microsoft Excel 2013.

Two different types of data and information sources were used to fulfil the study. One is a survey method that issued a self-completion structured questionnaire to gather data from respondents. The researcher also used various service quality and customer satisfaction publications such as journals, books, reports, and manual and internet sources to gather more information to meet various research objectives. Descriptive tools such as frequency, mean and, standard deviation were applied and explained.

### **4. Results and discussions**

#### **4.1 Analysis of The Questionnaire Results**

This section presents the analysis and discussion of the results based on the designated objectives of the study for Public healthcare institutions. The section were presented under the following headings:

- Reliability statistics;
- Respondents profile;
- The extent of marketing mix variable adoption in Ghanaian public healthcare institution setting;
- Service quality delivery challenges facing public healthcare institutions in Ghana;
- Whether effective adoption of service quality really lead to patients (customers) satisfaction.

#### **4.2 Reliability/Validity Test**

A reliability test using Cronbach Alpha; resulting in a reliability coefficient of 0.992 which is above the recommended minimum of 0.7 (Santos & Reynolds, 1999) was conducted on all 113 items (variables) used in the study (see Table 1).

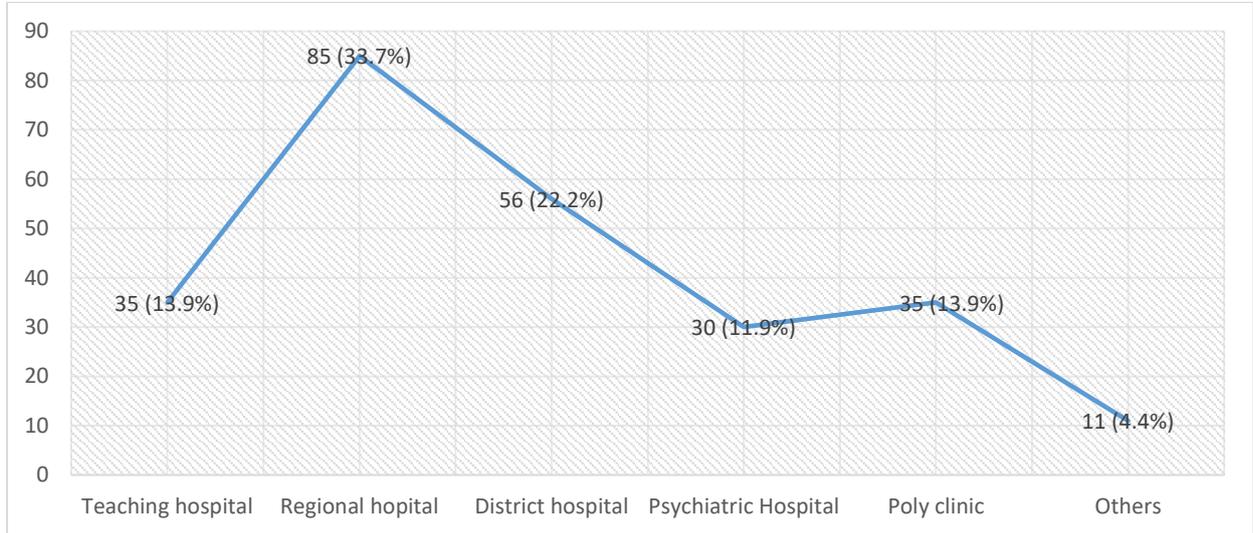
**Table 1: Reliability/Validity test**

<b>N</b>	<b>%</b>	<b>Cronbach's Alpha</b>	<b>Number of Items</b>
252	100	0.992	113

It can be inferred from Table 1 that variables assigned for the study were about 99% reliable to be used for inferential analysis. The study achieved a response rate of 98%.

**4.3 Respondents Profile**

This section of the study looks at the demographic characteristics of the respondents which concerns to the type of public health care institution, gender, age, educational level, current position within the institution and the number of years worked as shown in Figure 1 and Table 2 below.



**Figure 1:** Type of Public Health Care Institution

A critical look at Figure 1 shows that 34% of the respondents were from regional hospitals, followed by district hospital (22%), teaching hospital and poly-clinics accounted for 14% respectively, psychiatric hospital (12%) and the least of the respondents constituted others were 4%.

**Table 2:** Respondents Profile

<b>Characteristics</b>	<b>N</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	<b>252</b>		
Male		69	27.4
Female		183	72.6
<b>Age</b>	<b>252</b>		
18-25		28	11.1
26-35		84	33.3
36-45		73	29.0
46-55		46	18.3
56 above		21	8.3
<b>Educational level</b>	<b>252</b>		
JHS		7	2.8
SHS		26	10.3
Tertiary		139	55.2
Postgraduate		80	31.7

<b>Current Position</b>	<b>252</b>		
Health administrator		21	8.3
Medical doctor		22	8.7
Nursing officer		125	48.6
Patients		78	31.0
Others		6	2.4
<b>Number of years worked for current healthcare</b>	<b>252</b>		
Less than 6 months		29	11.5
1-3 years		82	32.5
4-6 years		64	25.4
Greater than 6 years		77	30.6

Source: Field Data, May, 2019.

Table 4.2 shows the respondents profile in concern to gender, age, educational level, current position and the number of years worked. With concern to gender, majority of the respondents were female respondents. This accounted for 73% of the total respondents while their male counterpart was 27%. Respondents varied about age, majority of the respondents (33%) were in the age range 26-35, followed by the age range 36-45 (29%) and the least 56 and above years accounted for 8%. In terms of educational level, more than half of the total respondents (55%) indicated they had tertiary education, followed by postgraduate (32%) and the least JHS (3%). On current position, majority of the respondents posited nursing officer.

This accounted for 49% of the total respondents, followed by patients (31%), health administrator (8%), medical doctors (9%), and the least others was 2.4%. Also 33% of the respondents had worked for their current health care institutions for 1-3 years, followed by more than six years (31%) and 12% indicated 12% as shown in Table 2 above.

**Table 3:** Crosstabulation on the Adoption and Extent of Quality Service Delivery

<b>Duration which quality service delivery has been adopted?</b>		<b>Extent which quality service delivery has been used?</b>			<b>Total</b>
		Low	Medium	High	
1 months - 1 year	Count	1	119	97	217
	%	0.5%	54.8%	44.7%	100%
2-3 years	Count	2	17	8	27
	%	7.4%	63.0%	29.6%	100%
4-5 years	Count	1	1	1	3
	%	33.3%	33.3%	33.3%	100%
5 years and above	Count	0	0	5	5
	%	0.0%	0.0%	100%	100%
Total	Count	4	137	111	252
	%	1.6%	100.0%	44.0%	100.0%

Source: Field Data, May, 2019.

Table 3 above depicts a cross tabulation on the adoption and extent of quality service delivery. A look at the table shows the level to which quality service delivery has been used by the majority of the respondents (55%) positing medium and the time to which quality service delivery has been adopted was between 2-3 years. This was followed by high which also recorded 45% with time to which, quality of service has been adopted was between 4-5 years.

**Table 4:** Does Effective Adoption of Quality Service Delivery Leads to Customer (Patient) Satisfaction

<b>Statement/Item</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Ranks</b>
Accessibility of health to healthcare customers is high	252	1	5	3.88	1
Health customers are given feedback about their concerns and problems	252	2	5	3.71	2
Health organizations' employees and officials are happy to explain health developmental decisions and programs to health customers	252	2	5	3.54	3
Various health institution are happy with the performance of health policy maker's strategic direction	252	1	5	3.06	4
Health customers have good image about health policy makers and administrators.	252	2	4	3.05	5
Healthcare employees are respectful to every patients and healthcare stakeholder	252	1	5	2.76	6
Health policies, decisions and programs are reliable	252	1	5	2.66	7
Healthcare customers are happy with the quality of health facilities and equipment	252	1	5	2.60	8
Healthcare customers are happy with the promptness with which their needs are met	252	1	5	2.52	9
Government funding is adequate to satisfy the needs of every health customer	252	1	5	2.48	10

Source: Field Data, May, 2019.

Table 4 presents results on whether effective adoption of quality service delivery leads to customer (patient) satisfaction. Totally, ten variables (statements) were examined using a Likert scale of 1-5 (1-Strongly disagree through to 5-strongly agree). Means score is used to find the relationship between effective adoption and service delivery. As noted above, the higher the mean score of a variable, the more consistent or stronger the relationship and vice versa.

The mean scores and its associated scores shows that mean score greater than 3.0 show that there is a fairly good relationship and hence effective adoption of quality service delivery lead to customer satisfaction whilst scores below 3.0 indicates that effective adoption does not necessarily lead to customer (patients) satisfaction (see Table 4).

**Table 5:** Factors that can contribute to Improvements in Quality Service Delivery Standards at Healthcare Institutions

Statement/Item	Percentage Likert				
	SD	D	N	A	SA
Creation of quality section or department	0.0	0.0	15.0	60.0	25.0
Healthcare appointees by government to head various state health institutions should have quality background	0.0	0.0	17.0	58.0	25.0
Strict compliance of quality control standards	0.0	0.0	0.8	72.2	27.0
Regular healthcare quality training for health officials and employees	0.0	0.0	0.8	70.2	29.0
Employment of qualified healthcare personnel for healthcare institutions	0.0	0.0	0.8	68.7	30.6
Motivation and rewards for health quality standard compliance	0.0	0.0	0.0	66.0	34.0
Provision of modern health equipment and facilities	0.0	0.0	1.2	65.5	33.3
Participation of key healthcare stakeholders in decision making	0.0	0.0	1.2	64.7	34.1
Adequate government funding for healthcare	0.0	0.0	1.2	60.3	38.5

Source: Field Data, May, 2019.

The variables were measured using the 5-point Likert scale whereby the higher numbers indicate the higher expectation of factors that can contribute to improving in the quality service delivery standard at the healthcare institutions. In general, customers (patient) agree to all the variables (statement/item) outlined contribute to improvements in quality service delivery standards at the healthcare institutions. For instance, the statement: "creation of quality section or departments", healthcare appointees by the government to head various state health institutions should have quality background" accounted for the majority of the respondents positing agree. The former accounted for 85% whilst the latter also accounted for 83% for agree (see Table 5). All the variables presented high percentages for agreeing indicates that all the statements on Table 5 strongly contributes to the factors that can contribute to the improvements in the quality service delivery standards at the healthcare institutions.

## **5. Conclusions**

The following conclusions were drawn from the analysis of the questionnaire:

- Service quality adoption among Ghanaian public healthcare institutional setting was generally medium;
- Customer satisfaction among patients of public healthcare institutions is also medium;
- There is a fairly good relationship between effective adoption of service quality and customer satisfaction.

Hence, effective adoption of service quality leads to customer satisfaction. On the other hand, the study shows that effective adoption of service quality does not necessarily lead to patients' satisfaction. Also, strict compliance of quality control, employment of qualified people with service quality background, motivation and rewards for health quality standards compliance, provision of modern healthcare equipment and facilities, participation of key healthcare stakeholders in decision making, regular service quality training of public healthcare officials, employment of qualified personnel and adequate government funding for healthcare would all enhance service quality and patients satisfaction in public healthcare institutions in Ghana.

The already mentioned result analysis showed that both internal and external factors influence the role of service quality in terms of patients' satisfaction in public healthcare administration. The nominalization of public healthcare practitioners and their affiliated stakeholders have to work together to arrest the declining level of patients' satisfaction which if left unchecked can negatively affect the quality of healthcare in public healthcare institutions in Ghana. This study also adds to the existing literature on service quality by showing that regular training of public healthcare personnel on service quality, employment of qualified healthcare personnel and participation of key healthcare stakeholders in decision making in public healthcare institutions can all contribute to patients' satisfaction in developing countries. The major limitation of the study is that only 252 out of an estimated population of 60,000 public healthcare practitioners in Ghana were considered for the study. This means that knowledge and experiences of the entire public healthcare institutional machinery might not be captured.

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