Assessing Patients’ Choice of Service Quality in the Healthcare Sector in Ghana: A Case Study of Sogakope District Hospital and Comboni Hospital

Fortune Afi Agbi¹, Baozhen Dai¹, Eric Owusu Asamoah²

¹Department of Health Policy and Management, Jiangsu University, 301 Xuefu Road, Zhenjiang, PRC-212013
²Department of Environmental and Safety Engineering, Jiangsu University, 301 Xuefu Road, Zhenjiang, PRC-212013

Corresponding Author: Baozhen Dai (hixiaodai@126.com)

ABSTRACT

Hitherto, the government of Ghana was the leading provider of healthcare in Ghana. However, in recent times, there is a spur in private persons providing healthcare, thereby creating competition in the sector. Patients are mostly in dire need of quality of services and willing to seek better quality deliveries. This article, therefore explored client’s choice of quality healthcare between the private and public hospital using the case of Sogakope District Hospital and Comboni Hospital. The study employed quantitative research methods in collecting and analyzing data on quality healthcare. The SERVQUAL model was used as the scale of measurement. Multiple regression analysis and the correlation was used to find out the effect of the independent variables (reliability, responsiveness, empathy, assurance, and tangibility) on the dependent variable (patients’ satisfaction). The findings of the study revealed that from the participants’ point of view, public hospitals were rated better as compared to the private sector.

Keywords: Healthcare; Service Quality; Patient Satisfaction; SERVQUAL Measurement

INTRODUCTION

In recent years, there are extensive advocates for the provision of quality healthcare services in the health centers (WHO, 2014). Patients make quality as one of the major choices in their selection of health products or services. In today’s highly competitive environment and with the inception of the National Health Insurance Scheme (NHIS), there has been a delicate competition among health facilities. The search for high-quality service has become the dominant focus for a firm to thrive (Cook and Verma, 2002; Talib, F., Rahman, Z., Qureshi, M. N., & Siddiqui, J. (2011). According to Munusamy et al. (2010), customer satisfaction is required in the development of health business goals because this is the crucial determinant of performance. A person's anticipation as against the extent of one's long service can be termed as Satisfaction. A patients' satisfaction has to do with his or her safeness and illness. particular needs are identified. The biggest industry in the world creating jobs for the majority of people and expanding quickly as well is healthcare. Workers in healthcare facilities attend to patients’ needs daily such as treating illness,
diagnosing and helping the sick (Quarterly, 2014). The health care system is made up of a broad variety of medical facilities that could be found throughout the country and universal medical care are given to patients at the hospitals. Emergency care, diagnostic medicine, surgery, and general care are some of the services provided by Healthcare facilities (WHO, 2014).

A careful look at the existing literature on healthcare service quality unmasks that past studies are mostly interested in addressing issues that commune with internal service quality (Young & Varble, 1997; Brooks, Lings & Botchen, 1999; Kang & James, 2004). Saravanan & Rao, (2007) in their study found that healthcare organizations are greatly engrossed in defining service quality from the client's point of view because this accounts for the planning of good client strategies. In this relation, their work affirms that there is a definite link between service quality and client satisfaction (Saravanan & Rao, 2007; Negi, 2009; Wicks & Roethlein, 2009). In developing economies, the measurement of efficient service quality from the clients' viewpoint presents a major problem (Amjeriya & Malviya, 2012; Solomon, A., & Dodor, A. 2014). This is so, due to the impalpable nature of service (Solomon, A., & Dodor, A., 2014). According to Hu, Cheng & Hong, (2011) a client's satisfaction and viewed value is affected by quality service and Zahari, Yusuf & Ismail, 2008; Temizer & Turkyilmaz,2012; Solomon, A., & Dodor, A., 2014) found that service quality is the utmost priority in the service industry in recent years. Thus, in health service delivery, quality service is a significant ingredient (Hollis, 2006; Ross, D. S., & Venkatesh, R. 2015).

This research paper seeks to ascertain the impacts of the service quality dimensions influencing quality service in Private and Public healthcare delivery centers in Ghana using Sogakope District Hospital and Comboni Hospital as the case study. Also, to figure out the aspects of service quality that is acceptable and deficient. This paper will discuss the quality of healthcare delivery received in Ghana thereby providing an acumen to the client's satisfaction with the level of Health delivery. On the other hand, this paper would help identify service gaps in the health sector. These gaps will aid the Ghana Health Service to review its plans and concentrate on cost-effective ways of managing its limited resources to improve service delivery. The research would provide a conviction for the understanding and magnitude of patients' expectations, and service quality dimensions which are crucial to an efficient healthcare delivery system.

**LITERATURE REVIEW**

**Concept of Service**

The meaning of service varies per the environment in which it is used. The concept of service could be explained in the context of kinds of literature in which it is being used. Menor, L. J., & Roth, A. V. (2007) discusses service about how customers, lenders, workers, and stakeholders perceive service. Thus, service is being explained from an organizational point of view. Al-Abri, R., & Al-Balushi, A. (2014), refer to the elements of the service package as the customers benefit package. That is, stuffs that give profit and worth to consumers. In the marketing literature, this process of describing the nature of a service concerning its constituents forms parts.

For instance, the "8Ps" of marketing comprise of the components of the service product, process, place, physical evidence, people, productivity and quality, plus additional marketing elements, price and promotion (Lovelock and Wright 1999; Melián-González, S., Bulchand-Gidumal, J., & González López-Valcárcel, B. (2013). These "8Ps" are founded on the "7Ps" by Gordon, R. (2012) which evolved out of the "4Ps" by McCarthy (1960; Lusch, R. F., & Webster Jr, F. E. 2011). Edvardsson and Olsson (1996; Lusch, R. F., & Nambisan, S. 2015) call the service concept as the model for service and explain it as the “detailed description of what is to be done for the client (what expectations and requirements are to be fulfilled) and how this is to be attained”. They emphasize the service concept development as a vital stage in service strategy and growth. This includes the association of the organizational plan and its competitive intentions by the understanding of client needs in the target market. Lovelock et al. 1999; Alam, I., & Perry, C. (2002) also said this, it is the 'what' and 'how' method; to them, the "service marketing concept" is the benefits to the customer (the what) and the "service operations concept" as the measurement of 'how' the service will be provided. Edvardsson et al. (2000; Yu, E., & Sangiorgi, D. 2014) state the service concept as an in-depth account of the customer needs to be fulfilling, in what way they are content, whatever is completed for the client as well its achievement. Clark et al. (2008) visualize the service concept as a mental picture, thus, “service in the mind”, embraced not only by clients but workforces and designers as well. The need to minimize the gap between expectations and service delivery is by creating a service concept which is understood and shared by all and sundry-stakeholders, employees and customers (Clark et al.).
Service Quality Concept
In this study, service quality is defined as the gap between a customer’s perception and the actual service they receive. This means that, a customer’s view of quality service typically forms the base underlining quality service in that, when a client feels satisfied with a service received, that becomes the expected performance and less when performance fails to meet expectation (Asubonteng et al., 1996, p. 64; El Saghier, N., & Nathan, D. 2013)
Service Quality in the Health Service
Gronroos, 1984; Seth, N., Deshmukh, S. G., & Vrat, P. (2005) believes that quality service in healthcare delivery can be both technical and functional. Technical quality in health care comprises of technical accurateness of the diagnosis and procedures while functional quality is concerned with the style of healthcare delivery. Numerous techniques in assessing technical quality have been recommended and are been used in health care organizations recently. According to Bopp (1990), data concerning technical quality is not open to the public and remains within the purview of health care specialists and administrators. Functional quality is generally the fundamental determinant of patients' opinion of quality because patients are mostly unable to measure the technical quality of medical services precisely (Donabediam, 1982; Nandan, S. 2010). Zeithaml 1998; Nandan, S. (2010) in this study made it known that quality's perception is the ‘single most important variable influencing patients’ opinion of value, and this influences their intent to buy a service. Nevertheless, both technical and functional qualities should govern total quality healthcare, whether the patient has information or not.

Perception of Service Quality and Client Satisfaction in Healthcare Services
The variations amid a patient's view of services presented by a specific health facility and their expectations about that health facility giving those services can be defined as Service quality in Healthcare (Aagja & Garg, 2010). That is, Patients satisfaction is dependent on their perception and expectation of a particular service which is molded on their past experiences at other health facilities (Kucukarslan & Nadkarni, 2008; Al-Arifi, M. N. 2012). This stipulates that client satisfaction has greater rewards positively such as the spreading of positive rumors or word of mouth recommendations to others and this will save the health facility a considerable deal of incurring extra cost of advertising (Zeithaml & Bitner, 2000; Swensen, S. J., Dilling, J. A., Mc Carty, P. M., Bolton, J. W., & Harper Jr, C. M. 2013). The opposite is right in this assertion as unsatisfied beliefs inevitably leads to disappointment (Dawn & Lee, 2004; Zarei, A., Arab, M., Froushani, A. R., Rashidian, A., & Tabatabaei, S. M. G. 2012). Client satisfaction can encourage great loyalty among clients although this varies in businesses as established by De Ruyter, et al., (1998; Imran, M., Ghani, U., & Rehman, K. U. 2013). Berry & Beudapudi, (2007; Purcărea, V. L., Gheorghe, I. R., & Petrescu, C. M. 2013; Nkrumah, S., Yeboah, F. B., & Adiwokor, E. 2015) opines that health care services are a necessity at a point in time in life. Andaleeb, 2001; Purcărea, V. L., Gheorghe, I. R., & Petrescu, C. M. 2013; Nkrumah, S., Yeboah, F. B., & Adiwokor, E. 2015 defined clearly the relationship that existed between the ‘five factors of service quality and patients satisfaction’. He discovered that the bonus factor had the lowest outcome while "tangible" and "assurance", had the highest impact on patients satisfaction. Bakar used the SERVQUAL instrument, et al., (2008); Muhammad Butt, M., & Cyril de Run, E. 2010) to quantify patients' orientations in Turkey by indulging ‘472 patients' which revealed that patients' perception 'scores were higher than their expected scores for standard hospitals and for first-class hospitals, the expected values were lower. ‘Responsiveness' and ‘reliability' measurements recorded the least expected scores of all measurements. Frimpong, et al., (2010)
also assessed patients' satisfaction with access to public and private healthcare facilities. His study brought to bear that public patients, in contrast to their private colleagues, were dissatisfied with the service delivery. Relatively, it was revealed in the studies of Irfan & Ijaz, (2011) that Pakistan Public hospitals were providing less service regarding the quality as compared to the Private ones.

It could be concluded that various studies and research have been carried out in this topic area whereby various techniques and methods have been employed at different places yielding a mass of different results (Efuteba, 2013). Even though those differences in results showed the general patient satisfaction, it is so important that some particular service dimensions need improvement.

Research Setting
This research was set in the Volta region of Ghana. It shares borders to the West with the Republic of Togo and to the east of Lake Volta. It has twenty-five (25) administrative districts. This region has multiple ethnic and lingual groups such as the Ewe, the Guan, and the Akan people. Sogakope is the capital of South Tongu district in the Volta Region of Ghana. This district has gotten 87,950 inhabitants of which 45.5% are males and the others 54.5% females by the end of the 2010 population and Housing census report (Wikipedia). It has about 196 persons per square kilometer as its inhabitant's density. Most communities can be found along the main roads while a few are found in other communities where the road network is good. Sogakope district is mainly rural with a majority of 87.1 percent in its vicinity and only 12.9 percent living in the urban areas. Sogakope is home to the District Hospital and Comboni Hospital. The South Tongu District is between longitudes 30°30' and 0°45' East and latitudes 6°10' and 5°45' North (Wikipedia). Sogakope is located at latitude 5.999 and longitude 0.594. The international highway from Togo through Ghana to Ivory Coast (Côte d'Ivoire) passes through Sogakope. The Comboni Hospitals located at Adela Akalo Road and the Sogakope District Hospital is located around the main road to Aflao. Sogakope was chosen specifically because it unveils the signs of a dense population and fast growing urban center with clients /patients related difficulties. Similarly, this will help the researcher to draw comparisons to why patients /clients will choose to go to either a private hospital or government hospital in the Volta Region. Consequently, the findings of this research could perchance be projected to the national level.

\(\text{Fig 1: Map of Volta Region}\)
\(\text{Fig 2 shows the location of Sogakope where the two hospitals can be found}\)
\(\text{Fig 3 shows a glance at Sogakope District Hospital}\)
Overview of the Ghanaian Health Sector
The Ghanaian Health sector is continually making relentless efforts to secure and safeguard its sector to provide adequate services to clients. This is because in developing states like Ghana, Patients are continually becoming aware of their right to proper healthcare delivery (Abuosi & Atinga, 2013). This has led to the excellent delivery of quality service as a lot of stakeholders in the health industry are trying all means to eliminate all forms of intimidating treatments or employees to meet the demands of their customers (Smith et al., 2006; Nketiah-Amponsah & Hiemenz, 2009; Ayimbillah Atinga, R., Abekah-Nkrumah, G., & Ameyaw Domfeh, K. (2011). According to Abuosi & Atinga (2013), the Ghanaian health sector has gone through various evolvement targeting the creation of a better enhances in healthcare delivery. The Health Ministry in Ghana is an essential ingredient in the making of policies while the Ghana Health Service is charged with the execution of these policies. The Government and the private sector are the stakeholders of healthcare delivery but in Ghana, they are mostly in conflict with each other. In 2010-2013, the Ghanaian health sector intended to achieve ‘universal coverage of primary healthcare through the enhancement of access to healthcare (The Health Sector-Medium-term plan, 2014-2017). A former Director General of Ghana Health Service, Dr. Sory emphasized that the quality of service quality delivery in recent times is low (Ghana web, 2010; Nkrumah, S., Yeboah, F. B., & Adiwokor, E. (2015). He urged the ministry to work hand in hand with health providers to improve service delivery. This is because most clients know their rights in healthcare and are demanding the worth of their money (Ghana Web 2010; Nkrumah, S., Yeboah, F. B., & Adiwokor, E. 2015). In the same report, it brings out the five stages of providers in Ghana ranging from tertiary hospitals, regional hospitals, district hospitals, medical centers and clinics to primary care for rural folks.

Quality Gap and the SERVQUAL Model

The SERVQUAL Model
Servqual model has become one of the main instruments used to test service quality. Literature studies suggest that satisfaction of clients should be the crucial aim of every organization.

When service quality is carried out effectively it ensures improvement in the institutions' objectives regarding time, assurance, value, trust etc.

Different schools of thought have discovered different models and methods to determine clients’ satisfaction using Servqual model, their advantages and disadvantages exist. Perception measures in service quality were used in Egypt by Mostafa (2005). The primary goal of the researcher was understanding the differences that exist between government hospitals clients and self-owned hospital clients. Customers responded to questionnaires on evaluating service quality adopting significant variation. Five hundred clients from twelve hospitals in Egypt were researched.

It was designed according to 1-5 using a Likert scale and three hundred and thirty-three (333) questionnaires answered. The results show that three-factor results of SERVQUAL theory. A minute distinction was drawn from the two hospitals using Servqual theory, statistically.

The research of clients’ expectations and understanding of a hospital service quality in Singapore designed a tool using the Servqual model which were in five groups and is comprised of 25 questions with five points Likert scale (Lim and Tang 2000). The same study had another set of distinct questions which were modeled according to different dimensions from the original model. This extra form part of the current research. Similarly, one of the questions that was asked in this study was the ‘overall necessity’ of service quality in the expectation section. Out of a total of 300 questions that were distributed, 252 questionnaires were filled. The total score for the Servqual tool was included by using of the mean and standard deviation to test the hypothesis that was not having variation. The most essential variations of health care services in the
research were pledge and response. Another research by Manaf and Nooi (2009) focused their survey using variation, expectation and the comprehension of both inpatients and outpatients using servqual model in health facility at Malaysia. Regarding their study, 646 inpatients and 570 outpatients were recorded respectively. Responses were analyzed as follows: ‘Two factors were produced called clinical variations of service two and physical variations of service three.’

**Tangibility**

This involves the physical environment and the appearances of the health amenities. This condition comprises the workers' appearance, dress, equipment, and tools used by healthcare professionals to provide better quality healthcare as well as cleanliness are all dimensions of tangibles Gronroos (2000). The physical surroundings have shown to have a positive impact on clients’ satisfaction (Grewal, Gotlieb & Marmorstein, 2000).

**Reliability**

It refers to the capability to carry out expected duties credibly and dependably without mistakes (Parasuraman et al. ’1991). Thus, reliability could be described as a standardized activity of health staff (Johnson (1997). This is so important in achieving quality health care service delivery. Mostly, health professionals getting their activities right for first timers with no mistake in treating patients goes a long way to bring about client satisfaction.

**Responsiveness**

Responsiveness refers to the preparedness and the willingness of health staff in providing service to clients. Time is of a great essence in achieving this condition. Timeliness of activities of health workers such as ensuring clients go through successful review, giving quick services to patients/customers as well as payment of suppliers (Gronroos 2000) goes a long way to improve clients view of service quality.

**Assurance**

Assurance refers to the skills and courtesy of health professions to be able to impact trust and confidence to their clients. This condition involves facts like the ability to do the job, experience, as well as how customers are dealt with and treated etc and the general attitude towards patient’s needs. However, patients should feel safe in assessing healthcare delivery (Fitzsimmons and Fitzsimmons, 2001).

**Empathy**

It refers to health workers having patient’s best interest at heart. Thus, the ability to show compassion and the ability to show care to patient needs. The hospital should be able to provide care and individualized attention to its customers (Parasuraman et al.’1991).

In using the SERVQUAL questionnaire to measure service quality involves the difference between the expected and perceived levels of quality relating to the above statements.

**Quality Service Gaps**

Five service quality gaps occur in service industries (Zeithaml, et al., 2013). The gaps include the following:

- **Gap 1:** Listening gap which shows the difference that exists between a client's expectations and that of a firm's understanding of those expectations regarding service delivery.
- **Gap 2:** Service scheme and Standards gap denote the differences between a company's compassion in the direction of client's expectations and creating policies and values which are client driven.
- **Gap 3:** Performance Gap explained the differences that exist between the growth of ‘client-driven service standards and real service performance’. As a result of persons, organizations or technology performing below the set standards, it leads to low service delivery.
- **Gap 4:** External Communications gap is founded on a company's responsiveness and guarantee complete active interactions with clients.
- **Gap 5:** The Expected Service-perceived service gap is the discrepancy between client’s perception and expectations in quality service (Akter, et al., 2008; P. Pai, Y., & T. Chary, S. 2013). Most businesses use the SERVQUAL to measure and bring about service quality. This is because it assesses the client’s prospects regarding the five service dimensions and their opinions of the service received. McCabe et al,
2007; Lages & Fernandes, 2005; Regber, S. 2010 Nkromah, S., Yeboah, F. B., & Adiwokor, E. (2015) in their studies posit that the SERVQUAL is not only a ‘measurement model’ but a good management model.

A lot of research has proven that the SERVQUAL model has been used in various healthcare centers for measuring patient’s perceptions of service quality (Irfan & Ijaz, 2011; Nekoei-Monghadam & Amiresmaili, 2011; Zarei, 2012).

Nevertheless, it had had numerous criticisms. Buttle 1996; Muhammad Butt, M., & Cyril de Run, E. (2010) queries the hypothetical and functioning measures of the SERVQUAL while McDougall & Levesque, 1996; Abdullah, M. A., Manaf, N. H. A., Ahsan, K., & Azam, F. (2014) contended that these five dimensions could be reduced to two dimensions; main and improved services, which matches with the technical and functional dimensions of Gronroos, (1983). The ServPref model which was recommended by some school of thought as the substitute for the SERVQUAL model has its source from the SERVQUAL. It has ‘reliability’ and ‘predictability’ for assessing quality service and it is believed to be more accurate (Cronin & Taylor, 1992). Piligriemiene & Buciuniene, 2005; Vanniarajan, T., & Arun, B. (2010) established that many researchers recommend the dimensions in measuring the quality of healthcare by evaluating both the criticisms and suggestions of these models to healthcare service delivery.

Usage of Servqual Model

The SERVQUAL model was used to define the quality of healthcare services accessible by a public university of health clinic Anderson (1995). The study discovered that the clinic was rated poor on the assurance variation. Youseff (1996) also studied the SERVQUAL in National Health Service Hospitals in the UK and revealed that reliability scored the most significant factor affecting the clients’ overall perception of SERVQUAL and analyzed its application to the health sector in Hong Kong. Empathy was rated the second important dimension closely followed by responsiveness and assurance. Tangibility was ranked the least important of the five of the SERVQUAL dimensions in Youseff’s study. The validity, reliability and future validity that SERVQUAL is a reliable model to determine health care service quality as observed by Lam (1997).

Sewell (1997) in his research with National Health Service Hospitals realized that the most essential quality dimension was reliability followed by assurance. Both empathy and responsiveness were rated as almost the same. Tangibles were scored the fifth dimension. Scholars like Angelopoulou et al., (1998)

Source: Parasuraman et al., 1985; Curry, 1999; Luk and Layton, 2002.

Fig 4: Shows the service quality gaps
examined service quality offered in the public and private health centers. In their studies, it was discovered that customers in public hospitals were satisfied with the competence of doctors and nurses whereas findings on private hospitals were more satisfied with physical facilities, waiting times and admission procedures.

Dean (1999) in his studies used SERVQUAL in two different health locations at Australia to test the transferability of the said model. The outcome revealed that quality factors are distinct by the type of health service given to patients/ customers. Wong (2002) revealed three disparities thus responsiveness; assurance and empathy of the SERVQUAL model were more significant factors than other two dimensions affecting general client/patients satisfaction. Sohail’s (2003) goal was to examine the dimensions of the SERVQUAL model that influence the perception of patients concerning service quality in private hospitals in Malaysia. The dependent factor in this study was Client’s satisfaction. It was used to determine service quality by five variations outlined in the SERVQUAL model. The study tool was a questionnaire based upon an enhanced version of SERVQUAL having five dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. It also encompassed 15 pairs of linking expectation items. A total of 186 responses were documented and had a response rate of 18.6%. Factor analysis was conducted to show the construct validity of the study. Curry et al., (2002, p.197) assessed the quality of physiotherapy services by the application of the SERVQUAL model and three physiotherapy services in Dundee, Scotland.

The quality gap was found through these five dimensions with the use of an adaptable 22 item survey tools. The survey included questions regarding the client’s expectations and perceptions. They sought to define five gaps developed by Parasuraman et al., (1985). They found out that these services were much valued by customers although they understood that the perception gaps were a little cynical and the services could be modernized. Their studies proved that assurance and empathy were very significant. In spite of the weakness of the SERVQUAL model, they agree it is essential in being used as a measuring tool of service quality in the public sector to point out consumer priorities and measure performance.

Patient Satisfaction: A measurement of the quality of health care service

Patients, in general, receive different treatment from healthcare workers and they conclude based on the type of quality treatment they are offered (Choi et al., 2004). According to Groonroos (2000), the core and non-core are the two features of service provided.

A study in the emergency department of a hospital undertaken by Aragon et, al. (2003). The study was used to determine patient level of satisfaction concerning medical assistance, waiting time, and the nurses etc. through a primary provider theory. They concluded that overall patient satisfaction was positively linked with the two indicators of patients’ suggestion from the healthcare workers and the extent to which the service is satisfactory. Also, they pointed out that viewed patient satisfaction by explaining quality in two dimensions. That is, it varies from one patient to another depending on the type of one’s experience in receiving medical treatment as well as the general clients’ satisfaction and their perceptions of receiving medical treatment.

Criticisms of Servqual Model
SERVQUAL has been under various theoretical and operational criticisms despite its popularity and prevalent application (Buttle, 1996, p. 10-11).

Criticisms (Theory)
• Model objections: SERVQUAL is criticized on it been based on a perception example than a typical example; and SERVQUAL fails to draw on mental theory, mathematical values, and standard business.
• Orientation: SERVQUAL does not stress the results of expectation but the stress on the methods of providing services.
• Aspects of Dimensionality: The 5 variations is SERVQUAL theory is not universal. The number of dimensions included in service quality is not defined within a particular context; inter-correlation exist among the dimensions (empathy and responsiveness Reliability, assurance, tangible.).

Justification of Servqual model in measuring patient satisfaction:
Among other instruments for measuring patient satisfaction, the SERVQUAL tool is the most preferred tool. The reliability of the SERVQUAL model could be confirmed from the works of literature above which depicts some research have
outlined its usability and results. Other studies have identified either less number of dimensions or additional dimensions and have confirmed the five standard quality variations of SERVQUAL tools. Studies prefer to apply the new version of the same tools hence the variations in the dimensions. Initially, in 1985, SERVQUAL tools highlighted on ten dimensions; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/ knowing the customer, tangibles. The same model has been improved in 1988 by reducing the number of variations from ten to five; responsiveness, reliability, assurance, tangibles, and empathy. Later on, the same model was upgraded by some researchers through changing some dimensions by the modern constituents which were never mentioned earlier in the original model of SERVQUAL. Based on the literature surveys it has been gathered that some identifiable variations have been selected regarding country specific cultural practices. For example, a research of hospitals in Bangladesh, there were variations in discipline, and communication (tips) to staff.

From the ordinal scale, the SERVQUAL model aids the researcher to achieve customers’ ranking of perception and expectation. However, the SERVQUAL model is inexact when one applies the statistical tool with the ordinal data. Continuous measuring of patients’ and perception is also inaccurate. The literature study indicated that in many health care settings various researchers viz. Anderson (1995), Youseff (1996), Lam (1997), Sewell (1997), Angelopoulou et.al. (1998), Dean (1999), Lim and Tang (2000), Wong (2002), Jaboun and Chaker (2003), Boshaff and Gray (2004), Kilbourne et.al. (2004), Wisniewski (2005), Karassavidou et. al. (2007), Mangkolrat (2008), Akter et. al. (2008), Qinet. al. (2009), Wesso (2014) and Frimpong (2015) have applied SERVQUAL model since mid-90s to 2015. It was suggested however that despite all limitations, SERVQUAL is still a standard instrument to measure patient satisfaction in current times.

**Methodology**

**Data and Findings**

A quantitative method was utilized in this study. In deciding to use any method is subject to the specific study and how a person comprehends data and reality. This research is a comparative study of two hospitals which offers similar services concerning strategy, structures, price, etc. for patients. Mostly, part of a population is sampled in these studies. Graziano and Raulin (1979; Aikins, I., Ahmed, M., & Adzimah, E. D. 2014) suggested that smaller amounts of a unit sample are selected to represent the essential qualities of the entire unit.

An initial study was carried out to develop and test the quality indicators to make sure that they were valid, sensitive, reliable, and that regular collection would not be beyond the capacity of health personnel under normal working conditions. Certain assumptions are made concerning knowledge and reality which enables one to choose a specific study approach (Hathaway (1995). The research is a comparative study of two hospitals which gives very similar services regarding design, features, price, etc. for clients. Although it is the ideal way for the researcher to get reliable and accurate information, yet, it is impractical and expensive to include the entire population. This has resulted in lots of researchers selecting a sample of the population. Smaller amounts of a unit sample are chosen to represent the essential attributes of the whole (Graziano and Raulin 1979). Customers of Sogakope District Hospital and Comboni Hospital were about 7,000 grouped into two main categories to have a leader; respondents were selected from each category. A convenient sampling technique was used by the researcher to select 150 clients from Sogakope District Hospital and 150 from Comboni Hospital respectively, yielding 300 sample sizes for the study. A cross-sectional study and a convenient sampling method were used by the researcher to select 150 clients from Sogakope District Hospital and 150 from Comboni Hospital respectively, yielding 300 sample sizes for the study. The questionnaires were structured according to the SERVQUAL Dimensions. The data was measured on a five-point Likert – type scale, where 1 = strongly disagree and 5= strongly agree. The analysis was based on the primary data. In this research, a questionnaire survey was an appropriate tool for data collection so the questionnaires were delivered to the selected patients for completion in Sogakope District Hospital (SDH) and Comboni Hospital respectively.
These patients were permitted to read through and respond to the questionnaires. A total of 300 questionnaires was sent to both hospitals, 260 was answered thoroughly. The researcher received 135 and 125 completed questionnaires from SDH and Comboni Hospital respectively. The Statistical Package for the Social Sciences software (SPSS) version 22, was used to analyze the data received. Quantitative data analysis methods offer a uniform basis for examining data. This makes logical comparison and differentiation easy. The bases for measurement of scales were the SERVQUAL instrument. The SERVQUAL technique is adopted because research projected that all the five dimensions of the SERVQUAL instrument are significant and reliable in the healthcare setting (Qin & Prybutok 2009; Wen, C., Qin, G., Prybutok, V. R., & Blankson, C. (2012). The SERVQUAL model was later developed into five dimensions; reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman, Zeithaml & Berry, 1988).

Model Estimation and Measurement of Variables
In testing the relationship between service quality dimensions and patient satisfaction, a multiple regression model was estimated using patient satisfaction as the dependent variable and the service quality dimensions as the independent variables. The model is listed as follows:

Let: Patient Satisfaction = \( Y_1 \), Reliability = \( X_1 \), Responsiveness = \( X_2 \), Assurance = \( X_3 \), Empathy = \( X_4 \), Tangibility = \( X_5 \), and Error Term = \( e \)

\[
Y_1 = B_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e
\]

Where

\( X_1 \) ....... \( X_5 \) are the independent variables, \( \beta_1 \ldots \beta_5 \) are the coefficients of the independent variables, \( \beta_0 \) = intercept, and \( e \) = error term.

Data Presentations and Analysis
SOGAKOPE DISTRICT HOSPITAL (SDH)
Reasons for Attendance

Easy accessibility of SDH scored 80% of the total questionnaires given out making it the highest percentage of all the others, followed by excellent customer service with 20% and 10% were recorded for proper infrastructure.

Frequency of Visit
Regarding frequency of visit to the facility, clients who visit weekly basis were 7.4% followed by clients with 24.4% who visit monthly, 44.4% of clients visit the hospital on quarterly basis making the higher percentage recorded.

Alternative Healthcare
Patients that would prefer an alternative healthcare rather than Sogakope District Hospital were 20% while 80% preferred to visit Sogakope District Hospital for treatment representing the highest percentage.

Table 1: Demographics (Patients)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Responses</th>
<th>Frequency (%)</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>66</td>
<td>48.9</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>69</td>
<td>51.1</td>
</tr>
<tr>
<td>Age</td>
<td>18-23 years</td>
<td>21</td>
<td>15.6</td>
</tr>
<tr>
<td></td>
<td>24-35 years</td>
<td>26</td>
<td>18.5</td>
</tr>
<tr>
<td></td>
<td>36+ years</td>
<td>9</td>
<td>6.6</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Maried</td>
<td>106</td>
<td>78.5</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>29</td>
<td>21.5</td>
</tr>
<tr>
<td>Occupation/Profession</td>
<td>Completed Employee</td>
<td>36</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>Teaching</td>
<td>45</td>
<td>32.6</td>
</tr>
<tr>
<td></td>
<td>Farmers</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>44</td>
<td>32.6</td>
</tr>
<tr>
<td>How often do you visit this hospital</td>
<td>Full time Yearly</td>
<td>27</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
<td>22</td>
<td>15.6</td>
</tr>
<tr>
<td></td>
<td>Weekly</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>Daily</td>
<td>5</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Out of the 135 participants that completed the questionnaires in Sogakope District Hospital (SDH), 66 participants (48.9%) were males and 69 participants (51.1%) were females. With the age distribution, more than half of the participants (63.0%) were aged between 29-39years, 18-28 years denoted (15.6%) and those aged 40-50 years comprised 14.8%. Participants aged above 51 years constituted 6.6%. From table 1, the marital status distribution shows that 78.5% of the participants were married with 21.5% being single.
Participants with informal training constituted 14.1% and 15.6% had primary education. 43.7% of the participants had high school education and those who fell under tertiary education constituted 26.7%. In the distribution regarding occupation, 26.7% of the participants were company workers, 29.6% were teachers, 11.1% were farmers and 32.6% of the participants were in other occupations other than the ones listed.

In the patronizing of the services of the Sogakope District hospital, the first-timers represented 20.0%, those who visit monthly were 24.4% and those who attend on weekly and daily basis were 7.4% and 3.7% respectively. Most participants (44.4%) visited the hospital only when they are sick.

The results gotten from the table above shows that 57% of participants agree that the hospital responds quickly to customers’ needs. However, 14% objected to this factor. Also, 50% of participants agree customers easily obtain that information. That is, customers, admitted that information was easily obtained while 15% disagree with this factor. Again, 43% agree to the fact that Sogakope District hospital workers are willing to help clients. In this regard 14% of clients, however, disagree with this fact.

As shown in the table above, 57% of participants agree that Sogakope District Hospital has skillful and knowledgeable employees while 7% are with the opinion that the hospital does not have adequate skills and knowledge. However, 52% of participants are of the view that workers are well behaved which recorded the least customers who agreed. 11% of participants, however, disagreed to this fact. This factor attests to the fact that government has the capital to employ more qualified employees as compared to the private sector health service.
The table above shows that 89% participants recorded the highest clients that agree that Sogakope District Hospital workers see individual clients as important. That is the hospital having its client’s interest at heart scored the highest points. Only 2% disagreed to this factor. Likewise, 88% of respondents agreed to the fact that service hours are a convenience at Sogakope District Hospital while 2% disagree with this factor. The least percentage recorded was 84% of respondents for both giving of personal assistance to clients and preference to client’s interest accordingly. However, 4% and 6% also disagree with these factors respectively.

From the results obtained from the participants, seeing individual clients as important was ranked the highest response from customers with a relative index of 0.86 and a corresponding mean of 4.3 which means that this factor was ranked the most important to the participants.

Table 6: Tangibility of the Hospital

<table>
<thead>
<tr>
<th>Tangibles</th>
<th>% Agree</th>
<th>% Neutral</th>
<th>% Disagree</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>RE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicines</td>
<td>24</td>
<td>35</td>
<td>41</td>
<td>2.38</td>
<td>0.57</td>
<td>0.82</td>
</tr>
<tr>
<td>Improved and up-grading of Equipment</td>
<td>26</td>
<td>24</td>
<td>50</td>
<td>2.34</td>
<td>0.54</td>
<td>0.82</td>
</tr>
<tr>
<td>Replacement Equipment</td>
<td>16</td>
<td>19</td>
<td>55</td>
<td>2.16</td>
<td>0.56</td>
<td>0.82</td>
</tr>
<tr>
<td>New systems Expansion</td>
<td>64</td>
<td>81</td>
<td>7</td>
<td>4.12</td>
<td>0.92</td>
<td>0.82</td>
</tr>
<tr>
<td>Availability of medicines</td>
<td>53</td>
<td>29</td>
<td>18</td>
<td>3.39</td>
<td>0.64</td>
<td>0.82</td>
</tr>
<tr>
<td>Employee support</td>
<td>37</td>
<td>24</td>
<td>39</td>
<td>3.10</td>
<td>1.22</td>
<td>0.82</td>
</tr>
</tbody>
</table>

These results obtained from the participants show that 75% agree to the availability of medicine. However, none disagreed to this factor. These factors were so because government has capital to expand its facilities and provide the needed medicines from its stores for the government hospitals on credit basis. Another 75% attested that Sogakope District Hospital replace their broken equipment while 6% disagree with this factor. 56% agree that they should have improved and up-grading equipment while 18% disagree. Modern and new equipment recorded as well as system expansion recorded the least score with 54% of the participants agreeing that the hospital has new and modern equipment and expanded too.

From the results obtained from the participants, availability of medicine was rated the highest response from customers with a relative index of 0.784 and a corresponding mean of 3.9. This means that this factor was ranked the top priority to participants. Physical facilities like equipment’s, workers, and working materials facilitate good quality healthcare as explained by Gronroos (2000).

COMBONI HOSPITAL
Reasons for Attendance

Easy accessibility of SDH scored 60% of the total questionnaires given out making it the highest percentage of all the others, followed by excellent customer service with 25% and 15% were recorded for proper infrastructure.

Frequency of Visit
Regarding frequency of visit to the facility, clients who visit weekly basis were 6.4% followed by clients with 20% who visit monthly, 56% of clients visit the hospital on quarterly basis making the higher percentage recorded.

Table 7: Demographics data of respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Responses</th>
<th>Frequency (%)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>Male 60</td>
<td>Female 65</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>18-28 years</td>
<td>29-39 years</td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
<td>Informal</td>
<td>Basic School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20-39 years</td>
<td>High School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40-59 years</td>
<td>Tertiary</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td>Married 91</td>
<td>Single 34</td>
</tr>
<tr>
<td>Occupation/Profession</td>
<td></td>
<td>Company</td>
<td>Employee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teaching</td>
<td>Farmers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>How often do you visit this hospital</td>
<td></td>
<td>First time Yearly</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weekly</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>56</td>
</tr>
</tbody>
</table>

Out of the 125 respondents to the questionnaires in Comboni Hospital, 60 respondents (48.0%) were males and 65 respondents (52.0) were females. Concerning the age distribution, more than half of the participants (68.0%) were aged between 18-28 years, 29-39 years denoted (16.8%) and those aged 40-50 years comprised 5.6%. Participants aged above 51 years constituted 9.6%. Table 7 shows that 72.4% of the participants were married with 27.2% being single. Respondents who had had informal training constituted 16.8% and 14.4% had primary education. 25.6% of the participants had high school education and those who fell under tertiary education constituted 43.2%. In the distribution regarding occupation, 36.0% of the respondents were company workers, 21.6% were teachers, 16.0% were farmers and 26.4% of the participants were in other occupations other than the ones listed. In the patronizing of the services of the Comboni hospital, the first-timers constituted 13.6%, those who visit monthly were 20.0% and those who attend on weekly
and daily basis were 6.4% and 4.0% respectively. Most participants (56.0%) visited the hospital only when they are sick.

Table 8: Reliability

The table above shows that 62% of the participants agree that Comboni Hospital delivers on its promises thereby ranking it the highest percentage of customers that have the opinion that this hospital keeps their promises. On another hand, 23% of the customers object to that fact of Comboni Hospital delivering on their promises. Also, 49% agree to (feed clients with information) was the least among all the rankings. This shows that patients agree that the hospital is not reliable when it comes to this factor. Nevertheless, 27% disagree that (feed clients with information) is not a contributing factor concerning reliability.

With the results shown in table 8, the reliability factor (acts on its promise) was ranked the highest element with a relative importance index of 0.698 and a corresponding mean of 3.49. This dimension was considered as the topmost priority as to whether the hospital acts on its promises. This point contributes to Johnson’s study (1997) whereby he argues that reliability and performance of the health facility and its staff are essential.

Table 9: Responsiveness

The results obtained from the table above shows, 53% participants agree they readily access information while 20% objected to this fact. It was, however, the highest factor that clients attributed the highest percentage than all the others. 44% agree that workers respond quickly to customer’s request while 35% of clients were neutral, 21% disagree that workers respond quickly to customer’s demand.

With the results above, it can be concluded that workers responding quickly to customers request was the highest factor with a Relative Importance Rate of 0.658 and a mean of 3.29. This makes it the most critical factor. This buttresses the point that willingness of staff to offer better services improves quality health delivery (Gronroos 2000).

Table 10: Assurance

From the results depicted in the table above, 79% respondents agree that Comboni Hospital has skillful and knowledgeable employees whilst 17% are with the view that the hospital does not have adequate skills and knowledge. Moreover, 65% participants scored the least customers who have no difficulties in getting treatment with the hospital. In this regard, 21% of respondents disagreed to this fact.

The results obtained from the participants show skillful and knowledgeable were rated the highest element. It comes with a relative importance index of 0.796 and a mean factor of 4.05. This means that skillful and knowledgeable was the most important element to clients. This factor was by Fitzsimmons, (2001) emphasized on this element. He highlighted that, ‘knowledge is the ability to convey trust and confidence of clients by health employees’.

Table 11: Empathy

As indicated in the table above, 56% participants scored the highest clients that agree that Comboni Hospital staff see provide personal assistance to clients. Whilst 26% disagree to this factor. The least percentage recorded were 49% and 47% of respondents for both convenience service hours and preference to client’s interest accordingly. However 27% and 20% also disagree to these factors respectively. According to the results from the table above, the highest factors that contributed to poor quality health care was poor customer service with Relative Importance Index of 0.684 and a corresponding mean of 3.42. This therefore represents the most significant factor that contributes to poor service delivery.

Table 12: Tangibility
The results obtained from the respondents show, 86% agree to both system expansion and availability of medicine. None disagreed to these factors. 67% of the respondents agreed that the hospital has new and modern equipment while 4% objected to this factor. From the results received from the participants, having system expansion and modern and new equipment were rated the highest score from customers with a relative importance index of 0.744 and 0.834 respectively. This means that these two elements were ranked the most important by participants. This study was elaborated by Groenroos (2000) that physical facilities like equipment’s, employees, and working materials facilitate good quality healthcare. This factor is also right about private sector health facilities because they also purchase medicine on credit basis to meet their patient’s demand.

ANALYSIS

Table 13: Regression (a) for SDH

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>SE</th>
<th>t</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.770</td>
<td>.321</td>
<td>-5.596</td>
<td>.000*</td>
</tr>
<tr>
<td>REL</td>
<td>.032</td>
<td>.018</td>
<td>1.472</td>
<td>.041**</td>
</tr>
<tr>
<td>RES</td>
<td>.033</td>
<td>.016</td>
<td>2.135</td>
<td>.035*</td>
</tr>
<tr>
<td>ASS</td>
<td>.472</td>
<td>.056</td>
<td>8.404</td>
<td>.000*</td>
</tr>
<tr>
<td>EMP</td>
<td>.727</td>
<td>.055</td>
<td>13.113</td>
<td>.000*</td>
</tr>
<tr>
<td>TAN</td>
<td>.094</td>
<td>.022</td>
<td>1.796</td>
<td>.072**</td>
</tr>
</tbody>
</table>

In SDH, Empathy is found to have the highest impact on patient satisfaction ($\beta = .727, t = 13.113, p = .000* < .05$). This is followed by Assurance ($\beta = .472, t = 8.494, p = .000* < .05$) denoting that the skill to arouse trust and confidence in the client could also affect patient satisfaction.

More so, Responsiveness was also discovered as a significant determinant of patient satisfaction ($\beta = .033, t = 2.135, p = .035* < .05$). Tangibility to patient needs in Sogakope District Hospital was found to be less significant to patient’s satisfaction ($\beta = .094, t = 1.796, p = .075** > .05$) and Reliability in relation to patients in hospitals insignificantly impacts patient satisfaction ($\beta = .032, t = 1.742, p = .084** > .05$). It is also important to state that all the five service quality dimensions were significant in the analysis of achieving patient satisfaction in SDH.

Table 14: Regression (b) for Comboni Hospital

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>SE</th>
<th>t</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-3.633</td>
<td>1.415</td>
<td>-2.568</td>
<td>.011*</td>
</tr>
<tr>
<td>REL</td>
<td>.078</td>
<td>.053</td>
<td>1.240</td>
<td>.218**</td>
</tr>
<tr>
<td>RES</td>
<td>.061</td>
<td>.058</td>
<td>1.056</td>
<td>.393**</td>
</tr>
<tr>
<td>ASS</td>
<td>.611</td>
<td>.106</td>
<td>5.060</td>
<td>.000*</td>
</tr>
<tr>
<td>EMP</td>
<td>.196</td>
<td>.118</td>
<td>1.667</td>
<td>.098**</td>
</tr>
<tr>
<td>TAN</td>
<td>.527</td>
<td>.069</td>
<td>7.589</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Analysis of SDH

Multiple regression analysis was used to examine the relationship between the Service Quality Dimensions and Patient Satisfaction in Sogakope District Hospital. Patient Satisfaction was used as the dependent variable whereas the Service Quality Dimensions were used as the independent variables. The results shown in table13 shows that there is a significant relationship between Patient Satisfaction and the Service Quality Dimensions ($F =64.450, p < .05$). This means reliability, responsiveness, assurance, empathy, and tangibility define patient satisfaction. An $R^2$-squared of .730 shows that the independent variables describe 73% of patient satisfaction.

In Comboni Hospital, Tangibility is found to have the highest impact on patient satisfaction ($\beta = .527, t = 7.589, p = .000* < .05$). This is followed by Assurance ($\beta = .611, t = 5.060, p = .000* < .05$) denoting that the skill to arouse trust and confidence in the client could also affect patient satisfaction.
More so, Empathy was also discovered as a less significant determinant of patient satisfaction in Comboni Hospital ($\beta = .196$, $t = 1.667$, $p = .098 ** > .05$). In the same way, the study also found Reliability to a patient is a less significant indicator of patient satisfaction ($\beta = .078$, $t = 1.240$, $p = .218** > .05$). Lastly, the study also revealed that Responsiveness in relation to patients is less significant in patient satisfaction ($\beta = .061$, $t = 1.056$, $p=.293** > .05$). It is also important to state that all the five service quality dimensions were significant in the analysis of achieving patient satisfaction in Comboni hospital.

**DISCUSSION**

The study seeks to assess patients’ choice of service quality in the healthcare sector in Ghana. The following five Service quality dimensions were used in assessing client choice of either a public or private healthcare system: reliability, responsiveness, assurance, empathy, and tangibility of services provided. Multiple regression analysis was performed using data collected from two different hospitals which revealed that these service dimensions were significant to clients satisfaction hence the choice of a particular healthcare system. The Sogakope District hospital which represents the public healthcare and Comboni Hospital denoting the private healthcare. Our study used these two hospitals as a case study as they bear the actual characteristics of a typical public and private hospital in Ghana.

**Comparison of Sogakope District Hospital and Comboni Hospital**

**Reliability**

In comparing these two hospitals in relations to reliability, Sogakope District hospital recorded the least significant value ($\beta = .032$, $t = 1.742$, $p=.084 > .05$). This depicts that reliability which involves the healthcare system acting on their promises recorded the lowest of all the factors in this study. Thus, clients at Sogakope District hospital were not satisfied with the reliable services delivered by Sogakope district hospital. Similarly, Comboni hospital was also rated less significant in terms of reliability ($\beta = .078$, $t = 1.240$, $p = .218 > .05$). This implies that reliability had the least impact on client satisfaction. This concurs with the study of Bakar, et al., (2008); Muhammad Butt, M., & Cyril de Run, E. (2010) ‘Responsiveness’ and ‘reliability’ measurements recorded the least expected scores of all measurements’. Although reliability in both hospitals was not significant, the findings of the study clearly showed that employees of Comboni hospital attach more importance in delivering their promise than Sogakope District hospital.

**Responsiveness**

In terms of responsiveness in the two hospitals, Sogakope District hospital was ranked the highest ($\beta = .033$, $t = 2.135$, $p = .035 < .05$). This shows that responsiveness was significant in impacting on patient's satisfaction. It recorded the highest score of 2.135 denotes that clients get access to information as and when it is needed in the hospital. Comboni hospital recorded ($\beta = .061$, $t = 1.056$, $p=.293 > .05$) showing that clients in their view think information is not easily gotten. It goes to show that there has been a reawakening in public hospitals in this study since it reveals that, public hospitals staff make information accessible to their clients at all times as against Comboni hospital which is a private facility. This study is in contrast with findings from Frimpong, et al., (2010), who assert that public patients were most dissatisfied with service delivery in comparison with their private colleagues.

**Assurance**

Regarding the Assurance Dimension, it was discovered that both hospitals significantly provide secured medical services. Sogakope District Hospital was again declared the best in relations to Skillfulness and knowledgeable employees with ($\beta = .472$, $t = 8.494$, $p = .000 < .05$) while Comboni Hospital recorded ($\beta = .611$, $t = 5.606$, $p = .000 < .05$). The difference between the $t$ values is very significant which shows that all the two hospitals have workers who are skilled and knowledgeable in delivering their service. This means that the clients in these two hospitals felt secured in receiving medical attention.

**Empathy**

In comparison, Empathy at Sogakope District Hospital recorded the highest score amongst all the service quality dimensions explored. It was a significant factor with ($\beta = .727$, $t = 13.113$, $p = .000 < .05$) which shows clearly that Sogakope District hospital was the best when it comes to having their client’s interest at heart. On the other hand, Comboni Hospital score ($\beta = .196$, $t = 1.667$, $p = .098 > .05$) was insignificant in impacting on patient’s satisfaction. This clearly shows that employees of Sogakope District hospital see individual patients as important as against Comboni hospital.

**Tangibility**

Lastly, the following analysis could be deduced from tangibles being the expectations for these two hospitals. In Sogakope District hospital, tangibles were not significant ($\beta = .094$, $t = 1.796$, $p = .075 > .05$) on clients satisfaction whereas in
Comboni hospital, it had the highest significance ($\beta = .527$, $t = 7.589$, $p = .000 < .05$) on client satisfaction. In comparing the two hospitals, tangibles which includes physical appearances of staff, health facilities, physical environment, the private hospitals are the best due to the fact these hospital managers have the capital to employ skilled personnel to cater to the healthcare facility whereas, in the government hospitals, staffs do not attach adequate importance to customer care (Andaleeb et al. 2015). Andaleeb et al. (2015) in their study revealed that ‘most hospitals have a challenge in cleanliness and keeping hygienic conditions in the hospital environment especially in the public ones. Patients mostly offer tips to most junior staff who have been charged with ensuring hygienic conditions in the hospital because they wait on these tips to work’. It is important to note that all these factors together were significant to clients or patients satisfaction in Ghana.

Factors of the Change in Client's Choice

- Clients had access to information concerning their health readily in SDH. This shows that clients look for a more responsive hospital concerning their choice of healthcare. This shows the public sector is gradually poised to deliver quality service to clients.

- Cultural diversity is also a factor in this change in client’s choice for public hospitals. Different people with different cultural beliefs inhabit Sogakope but to the ordinary Ghanaian, hospitality is a key in attracting a lot of clients. Empathy embodies hospitality; thus, having client's interest at heart, resolving conflicts amicably etc. and SDH was ranked highest. This is because the government employs the best medical staff who are well equipped. It can be noted that supervision in SDH is best to achieve this desired results.

- Lastly, this change is because of security and faith in public hospitals (superstition). Most Ghanaians visit the public hospitals because it is believed it is more secure. Although private hospitals have more regarding tangibles, public hospitals have sophisticated machines because the government acquires them. A typical example is Korle-bu being the only hospital with DNA testing machine in Ghana\(^5\). Regarding health professionals, the public sector has more at their disposal who are equipped and so most clients will prefer a public hospital for better treatment than the private ones.

Main Problems to Efficient Quality Service Delivery

First, Congestion in Public Hospitals is the main reason for the offering of poor service quality (Irfan et al, 2012) as compared to the private ones. Rural town folks lack most regarding basic health facilities and so they have the chance to visit either the public or private health centers in the cities when the need arises but most of them prefer the public ones. The extreme congestion in these public hospitals can be credited to inexpensive healthcare services. Irfan et al, (2012) opine in his study that the administration is powerless in managing the significant number of patients who frequent the place. This intensifies the reason why physicians and employees are unable to offer distinct attention to patients.

Second, most hospitals have a challenge in cleanliness and keeping hygienic conditions in the hospital environment especially in the public ones. Patients mostly offer tips to most junior staff who have been charged with ensuring hygienic conditions in the hospital because they wait on these tips to work (Andaleeb et al. 2015).

Also, the failure in implementing quality management systems in the healthcare sector is a key problem. Salomon, et al, 1999 Boyer, L., Francois, P., Doutre, E., Weil, G., & Labarere, J. (2006) elaborated in his study that, patients’ prospects and priorities regarding health care differ amongst countries and are substantially linked to cultural orientations and the local health care structure. There are other challenges that confronted government hospitals namely; the rise in patient load yet hospital infrastructure remains unchanged, huge monetary restraints (for public), underutilization of resources (for both public & private), unacceptable managerial backing from authorities, (De Jager & Du Plooy, 2007; De Bruyn, D. 2017). Escalating costs in both public and private healthcare spending has disturbed most governments and self-owned hospitals in their effort to provide better-quality service (Manaf, 2005; Kitapci, O., Akdogan, C., & Dortyol, I. T. (2014). Finally, due to insufficient training, hospitals that want to use sophisticated technology are unable to deliver up to expectation (Mostafa, 2005; Yesilada, F., & Direktör, E. 2010; Ramez, W. S. 2012; P. Pai, Y., & T. Chary, S. 2013).

\(^{5}\)Myjoyonline.com 2010
CONCLUSION
The public sector chosen for this study (Sogakope District Hospital), the reliability, responsiveness, empathy, and tangibility as compared to Comboni Hospital (private sector) was graded better than the private hospital. In this study, the researcher realized that most of the findings did not concur with existing works of literature of clients choosing the private sector over the public sector regarding healthcare. This study revealed the re-awakening of the dormant public health system and the change in patient's taste as most of them prefer to patronize the public hospitals as compared to their private counterparts. That is, the public sector was providing quality service than the private ones. In this study, the Public sector had Empathy, Assurance, and Responsiveness as significant whereas the Private sector had two (Tangibles and Assurance) of the service dimensions as significant.

These changes in the public sector may be due to the government's relentless efforts to improve quality service in the public sector through investing the vast sum of money into health, employing very qualified medical staff, insurance etc. Most of the clients in this study felt safer or secured in visiting public hospitals because they were well taken care of. This means that management of Comboni Hospital has to improve more on these factors. However, customer care is still a challenge in public hospitals as compared to their private counterparts and this affects service delivery in the public sector. All the service quality dimensions were significant in determining patient satisfaction in healthcare delivery as well as a client's choice of healthcare. The authorities of the Public hospital and private hospitals must continue to use SERVQUAL Model as propounded by Parasuraman et al.1985 to improve their service performance in the health facility to compete with each other as well as enhance their service delivery to Ghanaians.

Conclusively, this current study recommends the following steps to both the management of the public and the private sector as well to improve quality service delivery.

- Tangibles dimension being insignificant in the public hospitals means that marketing managers and the government must invest in technology and equipment and their staff appearance as well. This is logical because the majority of clients try to assess a service after tangible elements such as the environment and the price in service businesses. Managers can apply strategies employed in ergonomics such as music and must take good care of their health care environments.
- Managers and government must pay serious attention to the recruitment stage of their staff based on each personnel’s capability and ensure continuous training of staff that would focus on professional qualifications and how they communicate with patients if it wants to raise the scores of responsiveness and reliability dimensions.
- For an organization to survive for an extended period in an environment whereby there is continuous change in demographics, preferences, and lifestyles, it is a prerequisite to involve in persistent research of the customer's expectations and perceptions. Also, comprehending the health care client in a competitive market is exceedingly significant.
- The enhancement in the health care system can ease the in-patient stays and decrease death. The failure in achieving the needs of patients in a health care setting could lead to finding opportunities and drawing from their flaws.

Funding Information
This work was funded by National Nature Science Foundation of China (Grant number: 71774069).

Acknowledgments
We appreciate the Medical staff of Sogakope District Hospital & Comboni Hospital, Sogakope who provided solid support for this survey. We also appreciate Miss Precious Ablah Agbi of the Department of Accountancy, Kumasi Polytechnic, Ghana and leading professionals who helped in the recruitment of participants and coordination with the sample hospitals. We give our distinctive thanks to the 300 respondents of the questionnaires.

REFERENCES


[48]. Potts, A. W., Edvardsson, D., Karlsson, L., Holland, D. M. P., MacDonald, M. A., Hayes,


