

# Outpatient Pharmacy Service Delivery on Hypertensive Patients in St Elizabeth, St Patrick, and Holy Family Hospitals

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## ARTICLE INFO

**Received:** 📅 February 05, 2024

**Published:** 📅 February 13, 2024

**Citation:** Comfort Michelle Apedzi and Anthony Kwame Apedzi. Outpatient Pharmacy Service Delivery on Hypertensive Patients in St Elizabeth, St Patrick, and Holy Family Hospitals. Biomed J Sci & Tech Res 55(1)-2024. BJSTR.MS.ID.008645.

## ABSTRACT

**Introduction:** There has been a drastic change from product-oriented to patient-oriented care in the provision of pharmaceutical care. The relevance of understanding the satisfaction of patients is widely recognized in providing responsive, quality healthcare delivery. Satisfaction, therefore, becomes essential, as selective choices are made by patients themselves and by institutional healthcare providers. Research was conducted in Holy Family Hospital, Techiman, St Patrick Hospital Offense, and St Elizabeth Hospital, Hwidiem all in Ghana.

**Aim of Research:** The aim of this study was to assess the impact of outpatient pharmacy service delivery regarding hypertensive patients' satisfaction in some selected Hospitals in Ghana.

**Methodology:** A conceptual model was constructed from the literature reviewed, leveraging on the variables of quality of healthcare delivery from outpatient pharmacy service on hypertensive patients' satisfaction. Subsequently, the pragmatic philosophical stance (mixed approach) was adopted for this research, as it aligns well with the explanatory sequential method. In addition, regression, the principal component analysis and thematic analysis were used for the analysis of the data that was collected.

**Findings:** Respondents stated that they are happy with the services rendered to hypertension patients. The services are reliable and assuring. Some major factors that account for the reasons is that the staff at the pharmacy departments spend a lot of time for hypertension patients, educating them on medication. Another factor was that they go to the hospitals frequently for review and have become familiar with the staff. The staff at the pharmacy department work there more permanently than staff at the clinic who are changed sometimes. This makes the patients more familiar with the staff at pharmacy departments and brings cordiality as well as satisfaction.

## Introduction

Globally, there has been a drastic change from product-oriented to patient-oriented care in the provision of pharmaceutical care [1]. The relevance of understanding the satisfaction of patients is widely recognized in providing responsive, quality healthcare delivery. Satisfaction, therefore, becomes essential, as selective choices are made by patients themselves and by institutional healthcare providers. According to Jackson and Kroenke [2] healthcare quality is an indicator that needs to be redesigned or restructured to improve patient

satisfaction. Many studies have emphasized the significance of patient opinions as an important instrument for tracking and handling as well as enhancing the quality of service. In Ghana, the Ministry of Health (MoH [3]), in a five-year programme identified patient's satisfaction as a key to quality healthcare and service delivery (MoH [3]). The Ministry in addition acknowledged the improvement of patient's satisfaction and quality healthcare as one of the prime objectives of health sector reforms in Ghana [3]. Reports confirm that various factors such as income, insurance statuses and perceived health are predictors of patient's satisfaction for healthcare services provided (Lee,

et al. [4]). Other factors identified are the availability of prescription of medicine, accessibility, patient's experience of health facility visits as well as attitude of service providers at the pharmacy (Eshetu and Gedif, Ahmad, et al. [5]).

According to the World Health Organization (WHO), hypertension is a worldwide public health concern that leads to cardiac complications such as stroke, renal impairment, premature deaths, and disability [ 6]. Current global hypertension data have also shown that its occurrence and casualties have increased between 1990 and 2015 (Forouzanfar, et al.[7]). In Ghana, hypertension incidence and its noticeable effect on disease and death have been increasing in the last four decades according to population studies Wiredu & Nyame, [8]. Reported evidence shows that hypertension is placed second on the causes of morbidity in outpatients aged 45 years and older (Addo, et al.[9]). Sanuade, et al. [10] in their study further remarked that knowledge of hypertension, therapy and control with medications among the populace is still poor. The Ghana Health Service in 2014 thus estimates a prevalence rate of 29.9% males and 27.6% females with hypertension among adults, 18years and above (Obirikorang, et al. [11]). Apart from human causes, the poor management of hypertension has been associated with a weak healthcare scheme. Service delivery, and specifically pharmaceutical care, that is satisfactory to patients, play an essential role in promoting adherence to medications and ultimately, improved health outcomes. Thus, a failure in the quality-of-service delivery could significantly impact the extent to which medication regimes are poorly adhered to, thereby resulting in medical complications, which tend to drain health care funds greatly (Oswald, [12]). This study, therefore, seeks to assess the impact of outpatient pharmacy service delivery regarding hypertensive patients' satisfaction in some selected hospitals in Ghana.

## Research Problem

The failure to adhere to medicine therapy is a growing concern in the healthcare sector, relating to poor treatment failures, which results in a rise in blood pressure that cannot be controlled. The World Health Organization (WHO) estimates that approximately 50% of medication non-adherence occurs in patients who have chronic disease and about 25% of patients who undergo medication therapy for a rise in blood pressure, do not achieve the optimum blood pressure (De Geest & Sabaté, [13]). The situation in Ghana does not differ, as a study indicated that 66.7% of patients with hypertension comply with their medications (Boima, et al. [14]). Furthermore, Jimmy and Jose [15] stated that, medication non-adherence occurs as a result of several factors such as inaccessibility and frequent medication shortage, apathy of pharmacy staff, increase in medication cost, long waiting time, poor patient-provider communication and relationship among others. Subsequently, research by IFPMA [16], revealed that the non-adherence to hypertensive medication therapy results in reduced health outcomes such as hypertension complications, causing

about 9.4 million deaths each year. The IFPMA further specified that deaths resulting from cardiovascular complications such as heart diseases and stroke are approximately about 45% and 51% respectively [16]. Non-adherence, therefore, negatively affects health systems, families, patients, and the state as a whole. Frequent hospitalizations associated with such complications deprive patients of working; making them a financial burden to their relatives and the public at large. Likewise, their quality of life is decreased because complications like stroke causes restricted body movements, which could further lead to depression. Additionally, the funding of health facilities becomes a big issue due to frequent hospitalization, resulting in shortage of medications and a reduction in human-resource efficiency. It is therefore necessary to enhance compliance to avoid complications and decrease the adverse effects on health systems, relatives and patients (Brown & Bussell, [17]). Bajorek, et al. [18] suggest the active participation of pharmacists in hypertension management by improving treatment and the quality of life of their patients thereby decreasing chronic disease burden.

Numerous researchers have evaluated the satisfaction derived by patients from healthcare services and have found a correlation between overall patient fulfillment and the five dimensions of quality of service (Aghamolaei, et al. [19-23]). However, studies by some scholars suggest that little is known about the satisfaction derived by patients from pharmaceutical services offered to patients with chronic conditions such as hypertension (Al-Jabi, et al. [24, 25]), and Ghana is no exception. In addition, authors such as Swanson, et al. [26], Assefa, et al. [27] and Kelly [28] confirmed scanty research carried out between the overall satisfaction of patients and in healthcare service delivery. This current study thus, will seek to evaluate outpatient pharmacy service delivery on hypertensive patients' satisfaction provided by at Hwidiem St Elizabeth Hospital, Techiman Holy Family Hospital and Offinso St. Patrick hospital in Ghana based on the five service quality parameters of the SERVQUAL model using Reliability, Assurance, Tangibility, Responsiveness and Empathy as independent variables and the dependent variable being Hypertensive Patient Satisfaction.

## Research Aim

The aim of this study will be to assess the impact of outpatient pharmacy service delivery on hypertensive patients' satisfaction in three hospitals, namely: St Elizabeth Hospital, Hwidiem, the Holy Family Hospital, Techiman and St. Patrick hospital, Offinso in Ghana.

## Research Objectives

### The Specific Objectives are:

1. To evaluate the effect of reliability of outpatient pharmacy service delivery on hypertensive patients' satisfaction.
2. To assess the level of assurance of outpatient pharmacy service delivery on hypertensive patients' satisfaction.

3. To investigate the level of responsiveness of outpatient pharmacy service delivery on hypertensive patients' satisfaction.
4. To examine the degree of empathy of outpatient pharmacy service delivery on hypertensive patients' satisfaction.

#### Research Questions:

1. How does reliability of outpatient pharmacy service delivery affect hypertensive patients' satisfaction?
2. To what extent has the level of assurance of outpatient pharmacy service delivery affected hypertensive patients' satisfaction?
3. How does the level of responsiveness of outpatient pharmacy service delivery affect hypertensive patients' satisfaction?
4. What is the degree of empathy of outpatient pharmacy service delivery on hypertensive patients' satisfaction?

#### Assumptions

The researcher adopted the explanatory sequential mixed method approach (qualitative and quantitative) since that appropriately addressed the research questions and achieved the research objectives. The qualitative part of the study was achieved through interviews while the quantitative approach focused on self-administered closed-ended questions. According to Bryman & Bell (2015) the quantitative approach is used by positivists; believing that studies with a deductive approach follow the path of Theory, Hypothesis, test, and Confirmation/rejection. This approach uses deductive logic in which the researcher started with a hypothesis or a set of hypotheses and collected data, which was used to determine whether empirical evidence existed to support that hypothesis or set of hypotheses. It is also believed to be more scientific and objectively oriented, by making its replication easier. Therefore, for the set of hypotheses formulated for this study to be accepted or otherwise, a quantitative approach was used. Subsequently, the researcher is of the belief that, the use of both the quantitative and qualitative approaches, assisted to a large extent in achieving the study's objectives and answered the research questions.

#### Significance of the Study

This study highlighted the degree of fulfillment offered to hypertensive patients and how efficient management of these patients resulted in a better health outcome. In addition, the research outlined the shortcomings pertaining to patient's satisfaction of services delivered by the outpatient's department. It further served as the basis for appropriate reforms to be made by other hospitals and healthcare facilities in terms of policy. Again, the study is beneficial to researchers, serving as a reference source in conducting comparable future studies.

#### Scope of the Study

The study covered St. Elizabeth Hospital, Hwidiem, Holy Family Hospital, Techiman and St. Patrick hospital, Offinso, which serve as the

main referral points for all major health facilities in the area, providing specialist healthcare services. The research, therefore, focused on the impact of outpatient pharmacy service delivery on hypertensive patients' satisfaction of these hospitals, in relation to the five service quality dimensions. More so, Pharmacy staff, specifically pharmacists and pharmacy technicians, were selected for interviews during the research period. This was restricted to those that have worked at the outpatient pharmacy for at least one (1) year, where their work roles and service delivery involved direct contact with outpatients.

#### Review of Relevant Literature

This section reviewed a number of articles, reports and books discussed by various scholars on service delivery in the outpatient pharmacy department on hypertensive patients, which answered the research questions outlined by this study. Accordingly, the empirical studies assessed and summarized different findings, conclusions, methods and recommendations from literature, which centered mainly on the area of study. After reviewing the literature, further research gaps were identified which this research somewhat addressed through the research questions. Moreover, an operational model was constructed, which discussed variables (dependent and independent as well as the moderating variables) relating to outpatient pharmacy service delivery and hypertensive patients' satisfaction. Variables in this construct served as the main guide in realizing the objectives of the study.

#### Theoretical Framework

(Defee, et al. [29]) postulated that every good research should be grounded in theory. As a result, this study will align itself with Principal-Agent theory and confirmation and disconfirmation theory of customer satisfaction which will resonate very well with this study.

#### Principal-Agent Theory

Economists developed the principal-agent theory or model in the 1970s that deals with situations in which the principal is in the state to induce the agent –to perform some tasks in the interest of the principal– but not necessarily the agent's [30]. The theory aids to investigate the role of Outpatients Pharmacy Staff and record the management of patients' compliance and satisfaction as agents of the healthcare service delivery. Donahue (1989) elucidates that patients as agents must play their roles as elected agents. As cited by Krawiec [31], compliance with the directives by health professionals may resolve a principal-agent problem (Langevoort, 2002). Waterman & Meier [32] posits that despite the widespread referencing of the principal-agent model, the model and how its assumptions fit the problem to be studied are barely discussed. The reverse may also hold true in certain circumstances. The principal-agent model, as applied in disciplines such as sociology, political science and public administration is, in essence, a theory about contractual relationships between buyers and sellers (Ross, 1973; Zeckhauser, [33]). Essentially, the execution of quality health care will require the application of the contractual

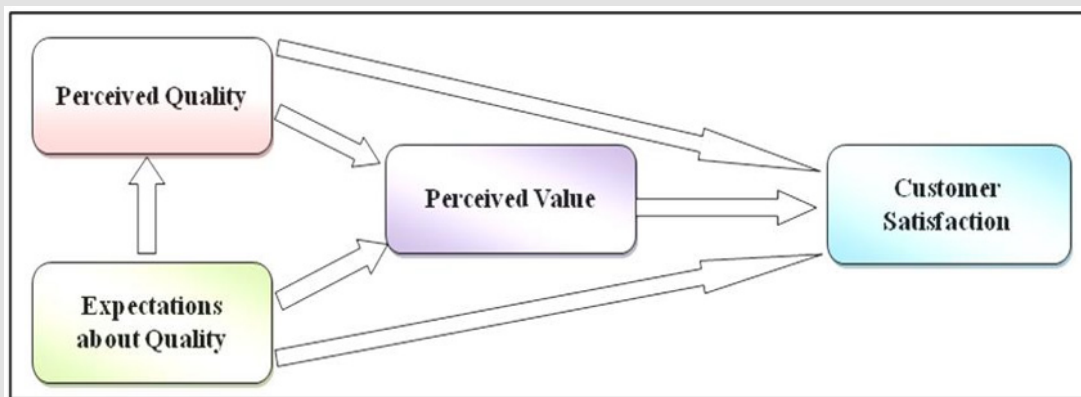
relationship between the institution providing the service (principal) and the receiver of the service (agent). It is a known fact that information irregularity exists, which is an advantage to service providers (a Physician or Pharmacist) over the agent (a Patient).

Principals, therefore, seek to manipulate and mold the behavior of agents, so they will act in a manner consistent with the principals' preferences (Waterman & Meier, [32]). This is, however, seen as a weakness of the principal-agent theory, where the principal or the agent takes advantage of each other due to distorted information. The contractual arrangement played a critical role in Mitnick (1973 and 1975) establishment of an institutional or regulatory principal-agent model. Rather than focusing on buyers and sellers, in exchange the author, Mitnick, examined the relationship between agents in the regulatory bureaucracy and their political principals (legislator and interest groups). This relationship is prevalent in the public sector administration where in the implementation of the Quality Health Care, State Institutions acts as agents on behalf of the principal (Ministry of Health for the Government) in the execution of the tenets of the principal. The agent is required to represent the interest of the government in the course of discharging their duties. Further to this, Mitnick (1980) framework included a network of agency relationships generated from such dimensions at the level of consent between agent and principal regarding the agent's actions (whether or not a contract exists, a contract which may be formal or informal), the sources of requirements of the agent's acts, and the level of discretion disclosed by the agent. The author added that agents could be motivated by the public interest or by their peculiar narrow interest. The author stressed that since agents enjoy information advantages over polit-

ical principles, the regulators are thus seen as agents to be policed to adhere to the public interest goals of some principals (Ministry of Health). This study is, therefore, deeply rooted in the principal-agent theory because it resonates well, in principle, and in practice.

**Expected Service, Perceived Service and Customer Satisfaction Theory**

Parasuraman, et al. (1985) in their research, established a very strong relationship between quality of service and customer satisfaction. When perceived service quality is less than expected service quality customer will be dissatisfied (Jain & Gupta, [30]). High perceived service quality will therefore result in increased customer satisfaction (Saravanan & Rao, [34,35]) since service quality is a precursor to satisfaction. Subsequently, a positive influence on a customer's satisfaction will motivate the customers to patronize the services constantly. Parasuraman, et al. (1988) posited that if expected quality of service and actual perceived performance is equal or approximately equal, customers experience satisfaction. It is further presumed that a negative discrepancy between perceptions and expectations (performance-gap), causes dissatisfaction while a positive discrepancy leads to consumer delight. This study is, therefore, deeply rooted in the Customer Satisfaction theory because it resonates well, in principle, and in practice. The American Customer Satisfaction Index (ACSI) model of customer satisfaction, establish the relationship between service quality, expectation and perception as demonstrated in Figure 1 below. This framework according to Fornell, et al. [35], shows that the measure of perceived quality is based on two key components of consumption experience: customization and reliability.



Note: American Customer Satisfaction Index (ACSI).  
**Figure 1:** ACSI Model of customer satisfaction.

**Empirical Studies**

A number of research works conducted in the healthcare sector has found a relationship between patient's satisfaction and health-

care quality. A summary of these reviews is represented in Table 1 below.

**Table 1:** A summary of empirical studies.

| Name and Year of Study          | Purpose and Dimension  | Methodology   | Findings   |
|---------------------------------|--|---|--|
| Neupane and Devkota (2017)      | To examine the impacts of service quality dimensions on patient satisfaction at private hospitals in Nepal.  | 490 patients were sampled from 10 private hospitals. The SERVQUAL dimensions and four factors of patient satisfaction was used. Regression analysis was carried out.  | The outcome of the study indicated that service quality has strong positive impacts on patient satisfaction.   |
| D'Cunha and Suresh (2015)       | To identify patients' perceptions of quality of care in a selected tertiary care teaching Hospital in India  | 100 patients were selected using the random sampling technique. SERVQUAL model was used.  | Results showed that majority of the patients were satisfied with the facilities provided by the hospital, and the quality care by the physicians and nurses.   |
| Aduo-Adjei (2015)               | To compare the quality of healthcare services between two university hospitals, the University of Ghana and the University of Cape Coast hospital.                               | Stratified and convenient sampling techniques were used to sample 218 patients using the SERVQUAL model. Principal component analysis, multiple linear regressions, independent T-test and a manual thematic analysis were used in presentation and analysis of data. | Results showed that tangibles, empathy, communication, priority and culture were key predictors of patients' satisfaction with quality healthcare. Patients further noted that timeliness, staff performance, service improvement and satisfactory services were relevant for ensuring the quality of service to patients at the hospital. |
| Asare (2018)                    | To assess Patients' perceptions of the quality of outpatient care at the Port Medical Centre (private hospital) in Ghana   | 390 patients were sampled using the SERVQUAL model to measure quality of care. Paired t-test, simple and multiple linear regressions as well as logistic regression technique was used for the analysis.  | Patients had high expectations and perceptions of quality care at the Port Medical Centre outpatient department but with a significant negative gap in quality. Only perceptions of Assurance and Reliability as well as expectations of Tangibility and Empathy are associated with patient satisfaction.                                 |
| Sie (2015)                      | To examine service quality gaps and patient satisfaction within the Ghanaian health sector with a particular focus on Ankaase Methodist Hospital.                                | Convenient sampling technique was used to solicit data from 250 patients. The SERVQUAL model was used and descriptive statistics, correlation analysis and regression used to analyse the data set.   | The study established Tangibility as the service quality gap per nurse while that of patients was Empathy. The result also indicated that service quality has a positive relationship with patient satisfaction.   |
| Fufa and Negao (2019)           | To assess satisfaction of outpatient service and its associated factors in the health service given to outpatients at Jimma medical centre, Ethiopia.                            | A systematic random sampling method was employed. The SERVQUAL model was used to measure service quality. Data analysed using SPSS, regression was further used to examine the association between dependent and independent variables.                               | The outcome suggested that the overall patients' satisfaction of outpatient service by the hospital is low.  |
| Pekkaya et al. (2019)           | To measure/evaluate ongoing healthcare service quality and patients' satisfaction with respect to outpatients' views in Zonguldak, Turkey  | A survey based on the SERVQUAL scale was implemented.   | Results showed that patients demographically differentiate healthcare service quality in terms of age, income, and service type, but not for gender, marital status, educational level, and profession. Moreover, reliability was observed as the most determinant dimension for outpatients' satisfaction.                                |
| Naik Jandavath and Byram (2016) | To investigate the effect of Health-Care Service Quality (HCSQ) dimensions on patient satisfaction and behavioural intentions in selected corporate hospitals from South India.  | Data collected through systematic random sampling from 500 in-patients of corporate hospitals. The structural equation modelling technique was used to investigate the effect of HCSQ dimensions on patient satisfaction and behavioural intention.                   | Findings suggested that in addition to patient satisfaction, the only HCSQ dimension that directly affected behavioural intention was Empathy. Furthermore, Empathy affected Responsiveness, Assurance and Tangibles, which had an indirect effect on behavioural intention through patient satisfaction.                                  |
| Jaswal and Walunj (2017)        | To understand the patient expectations, opinion and perception of Service Quality and identify and understand the gaps in the Service Quality.                                   | 303 patients from 10 major hospitals were sampled and presented with the structured SERVQUAL instrument.  | The study revealed that Reliability with Tangibility perceived to be least important. Results also showed that, patient expectations exceeded their perceptions for all service dimensions. The gap was observed highest for Reliability followed by Assurance, Empathy and Responsiveness.  |
| Haryeni and Yendra (2019)       | To determine the direct effect of service quality on patient satisfaction as well as patient satisfaction on repurchase intentions in the public health industry in Padang City. | 150 respondents were interviewed using accidental sampling technique. The SERVQUAL instrument was employed. The data was analysed using SEM analysis with the use of Partial Least Square (PLS) programs.   | Results indicated that Assurance, Reliable, Responsiveness and Tangible had no significant effect on satisfaction. However, Empathy showed a significant effect on Satisfaction. Furthermore, it was established that satisfaction significantly influenced the repurchase intentions of patients.   |

|                            |   |  |  |
|----------------------------|---|--|--|
| Al-Damen (2017)            | To measure the impact of perceived health care service quality on patient satisfaction at a major government hospital in Jordan.  | Based on the SERVQUAL model, data was collected from 448 outpatient participants. Statistical techniques such as descriptive and inferential statistical were employed.                          | Outcome of the study suggested that perceived health care service quality impacts on overall patient satisfaction. Reliability had the most influence, followed by Empathy and Assurance.  |
| Mugambi and Kiruthu (2015) | To investigate service quality dimension in health care service delivery, the case for Healthstrat in Kenya.  | Guided by the SERVQUAL model, 30 employees were selected and data analysed using SPSS.   | The study found that service quality as perceived by customers was based on how well service matches expectations.   |
| Rehaman and Husnain (2018) | To examine the impact of service quality dimensions on patient satisfaction in the private health sector in Sargodha, Pakistan.   | 380 respondents were selected using an online survey. SERVQUAL model that measures impact on service quality was used.   | The results of the study revealed that the most important factor that impact on service quality is Tangible and Empathy.   |
| Zarei, et al. (2015)       | To investigate the impact of the service quality on the overall satisfaction of patients in private hospitals of Tehran, Iran.  | 969 patients were sampled using consecutive sampling. SERVQUAL model was used, and data analysed using t-test, ANOVA and multivariate regression.  | The study established a strong relationship between service quality and patient satisfaction. However, did not find a significant effect on the quality of the physical environment on patient satisfaction.   |
| Tharanga, et al. (2018)    | To identify the quality determinants of the private healthcare delivery and the gap between expected and perceived service quality.   | Data gathered from 154 patients, 41 management representatives and 46 internal customers from 15 private hospitals using a questionnaire survey developed based on the SERVQUAL model.           | The study concluded that Reliability was the most expected by patients though, Assurance was the most perceived quality dimension. There was significance gap between expectation and perception. Assurance and Empathy had significant relationship with overall customer satisfaction while the responsive dimension very low. |
| Sathish, et al. (2018)     | To examine service quality in multi-specialty hospital in South India, India.   | 485 samples were collected using convenience sampling method.<br><br>The SERVQUAL instrument was employed. Descriptive statistics, correlation and regression analysis was conducted using SPSS. | Patients showed positive responses on the service quality variables and do have high agreement levels with the dimensions.   |
| Mahmoud et al. (2019)      | To determine patients' perception of service quality offered at Council for Health Service Accreditation of Southern Africa (COHSASA)-accredited private hospitals in Nigeria | 228 responses were obtained. Both confirmatory and exploratory factor analyses were used to assess the dimensionality of SERVQUAL.   | It was concluded that perceived quality was significantly lower than expected quality despite being accompanied with positive levels of satisfaction and repurchase intentions.  |
| Wesso (2014)               | To access perceived quality of health services and patient satisfaction in South African Public Hospital system.  | SERVQUAL was used as the main measuring tool. Descriptive statistics, Factor analysis, Hypothesis testing; adopting the Paired t-test and the Regression analysis were used to analyze data.     | Results indicated that patients were satisfied with the physical resources and infrastructure. Likewise, intangible also played a significant role in ensuring service satisfaction. All perceptions, however, were reported to have fallen short of the expressed expectations.   |

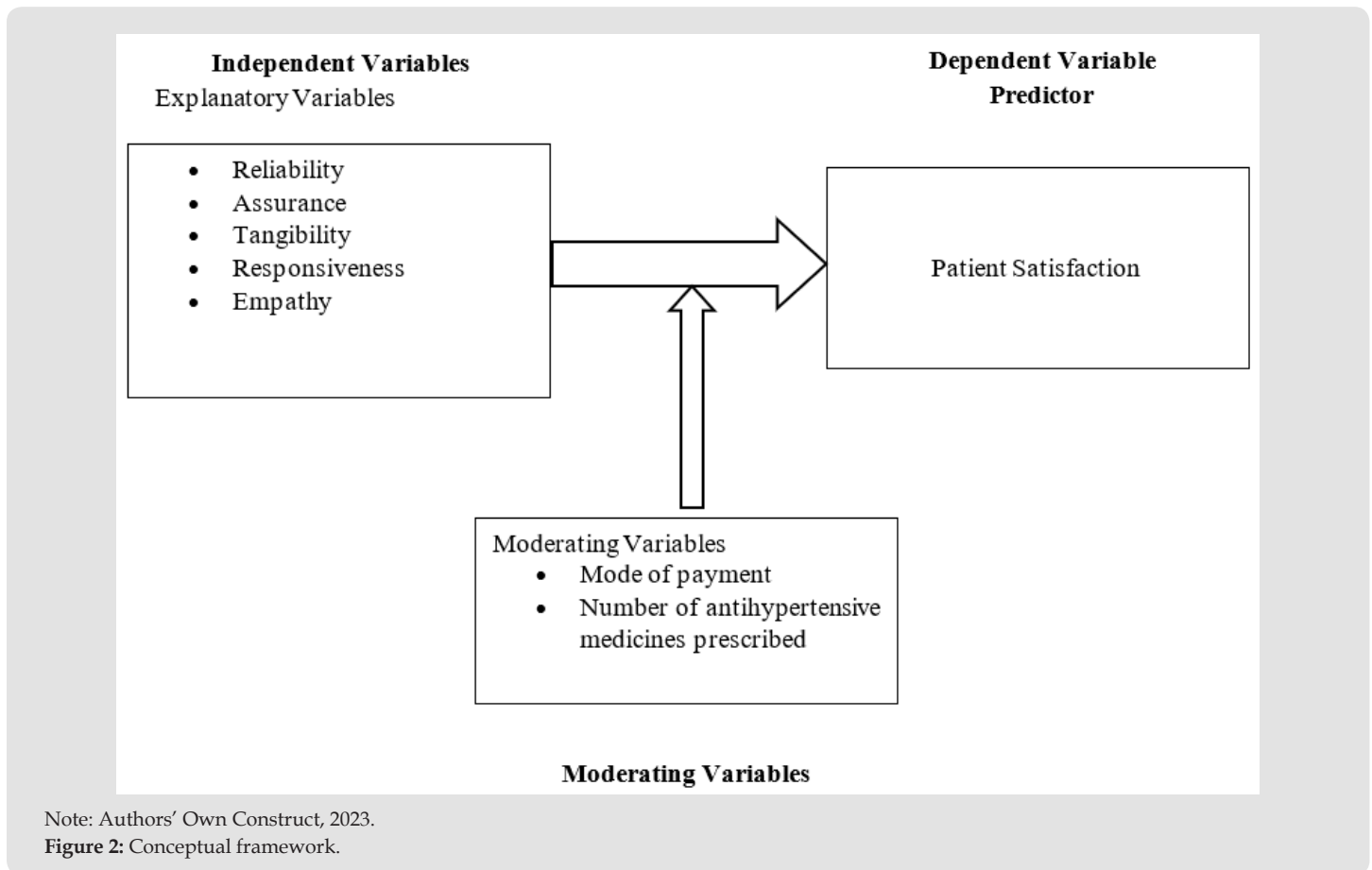
## Research Gaps

A careful review of extensive literature on patient satisfaction based on the service quality dimension using the SERVQUAL model shows that most studies, which focused on this area, lumped together all departments of the hospitals; Mahmoud et al. [36], Wesso [37], Sathish, et al. [38], Tharanga, et al. [39], Zarei, et al. [40], Al-Damen (2017), Haryeni and Yendra (2019), Naik Jandavath and Byram (2016), Pekkaya et al. (2019), Fufa and Negao [41] and Sie [23]. The results from these studies might therefore be regarded as biased since the differences in business activities of the various healthcare departments were not taken into consideration in the analysis of results. Studies by other scholars suggest that little is known about the satisfaction derived by patients from pharmaceutical services offered

to patients with chronic conditions such as hypertension (Al-Jabi, et al., [24]; OPAGS, [25]), and Ghana is no exception. Furthermore, authors such as Swanson, et al. (2007), Assefa, et al. [28] and Kelly [28] confirmed scanty research carried out between the overall healthcare service delivery and patients' satisfaction.

## Conceptual Framework

In this section, a conceptual framework constructed in Figure 2 below, shows the relationship between the independent or explanatory variables: reliability, assurance, tangibility, responsiveness and empathy, the dependent variable (patient satisfaction) as well as the moderating variables; mode of payment and number of antihypertensive medicines prescribed. This relationship established will direct the researcher in confirming or rejecting the hypothesis set.



## Explanatory Variables

**Reliability:** It reflects the ability of businesses to perform the promised service dependably and accurately. According to (Parasuraman, et al. [42] this dimension shows whether a company is reliable in providing the service, as promised. More so, reliability reflects a company's consistency and certainty in terms of performance, which Yousapronpaiboon and Johnson [43] recognized as the most important dimension for the consumer of services.

**Assurance:** Assurance includes knowledge and courtesy of employees and their ability to inspire trust and confidence. This dimension quantifies the knowledge, skill and technical abilities of the service provider from the client's view. It is a combination of the following components from the original SERVQUAL model, communication, credibility, security, competence and courtesy. Employee attitude towards the patient: their friendliness, politeness among others is also a key factor (Daniel & Berinyuy, [29]).

**Tangibility:** In this regard, Parasuraman, et al. [42] describes tangibility, mainly as how the service provider's physical installations, equipment and people are. In relation to the health sector, it makes

reference to how the physical environment of the hospital appears to the patient- the neatness, how it looks good and modern, accessibility, staff appearance and attire among others. The physical atmosphere may have a psychological impact on the patient either positively or negatively. This is arguably the least important dimension for the client according to some literature from the use of the SERVQUAL model (Yousapronpaiboon & Johnson, [43]).

**Responsiveness:** It indicates the willingness to help customers and to provide prompt service. The main issue raised is whether company employees are helpful and capable of providing fast service without wasting time. This dimension is critical to the customer's satisfaction of the quality of care (Yousapronpaiboon & Johnson, [43]).

**Empathy:** It is the provision of care and individualized attention to customers and regarded as a function of the interactions between client and employee. This dimension deals with the capacity of a person to experience another's feelings. Most customers expect that the delivery of services is not done in a robotic manner, which does not take into account their presence or feelings. Subsequently, their expectation is that the employee relates to them in an amiable manner with courtesy, serenity and calmness.

## Predictor Variable

**Patient Satisfaction of Quality Healthcare:** The WHO, therefore, defines quality care as the extent to which health care services provided to individuals, and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable, affordable and people centered. Similarly, the Institutional Care Division of Ministry of Health, Ghana, defines quality of health care as the proper performance (according to standards) of interventions that are known to be safe, affordable to society and impact positively on morbidity, disability and mortality. Hospitals have always been a place that provides the population with complete healthcare, both curative and preventive. In the hospitals, quality of care is measured with two metrics: patient outcomes and patient satisfaction. As a result, a patient's satisfaction increases his or her willingness to recommend, improves trust, loyalty and the rate of patient compliance and in addition decreases the number of lawsuits. Shan, et al. [44] argued that service quality is usually regarded as the antecedent of patient satisfaction. However, according to Kravitz [45], a patient's perspective of quality, effective service is often dissimilar to that of healthcare providers, administrators, and family supporters. A patient's view of care thus, influences their overall treatment outcome (Berghofer, et al., 2001). Generally, patients are satisfied by the quality of healthcare given, based on a range of factors such as promptness of care, a healthy personnel attitude, regard for and rights of patients, privacy and confidentiality, appropriate data, accessibility of medications and safe environmental conditions (Boateng, [46]). Consequently, the need for patients' opinions coupled with quality assurance of treatment outcome data has increased the demand for patient surveys in the past decade (Meehan, Bergen, & Stedman, [47-110]). Ultimately, survey responses are used as an effective tool to assist healthcare providers in developing interventions in order to increase patient satisfaction and improve treatment outcomes. This is increasingly being used to assess the competence of healthcare providers and the quality of care. Patient satisfaction surveys need to be conducted from time to time to determine the indicators of patient satisfaction so that health facilities can continue to modify their service delivery to suit the patients' needs.

## Methodology

The methodology focused on the research approach, research paradigm, research design, population, sampling size and technique, data-collection tool, method of data analysis, validity and reliability, limitation of the study and ethical considerations.

## Research Approach

According to Creswell (2007) and Johnson & Christensen [9], adopting the explanatory sequential mixed method approach is appropriate for conducting a high-quality study. The explanatory sequential mixed method approach was adequate in answering the research questions in addition to the corresponding hypothesis. The

researchers found it necessary to seek the views of experts at the Pharmacy Unit at selected hospitals on "Impact of Hypertensive Patients' Satisfaction Regarding Outpatient Pharmacy Service Delivery." Again, the five-point Likert Scale questions were applied in assessing the opinions of the study population through a well-structured questionnaire. Moreover, this approach brought together both convergence and divergence views and further consolidated the findings to satisfactorily achieve the objectives outlined in the study.

## Research Paradigm

The pragmatic philosophical stance was adopted for this research because it aligns well with the explanatory sequential method of both quantitative and qualitative approach. Pragmatics is of the opinion that the appropriate and right research method and approach very well answers the research questions and hypothesis. It is worth mentioning that the pragmatic philosophical stance is considered a problem-oriented approach that takes care of the limitation of both the qualitative and quantitative approach. The study under investigation (Outpatient Pharmacy Service Delivery on Hypertensive Patients' Satisfaction: A case study of Selected Hospitals in Ghana) is a multi-faceted case and therefore, adopting just the positivist paradigm will not be appropriate hence the adoption of the two approaches because of the complexity of the study. This assertion is strongly affirmed by Creswell (2007) and so the adoption of closed-ended questions and in-depth interviews from the targeted management staff to evaluate Hypertensive Patients' Satisfaction Regarding Outpatient Pharmacy Service Delivery was good for this research work, to get varied views in analyzing and discussing the convergence and divergence views to enrich the findings. In a nutshell, the pragmatic philosophical stance stresses perceptions and diversity of events and people, which aligned well with the study in terms of the problem outlined in the study organizations.

## Research Design

The study adopted the explanatory sequential design based on the complex nature of the case. The explanatory sequential design combines data from secondary sources such as articles, textbooks, newsletters, official records, dissertation, online journal along with closed-ended questions and primary data gathered through interviews as suggested by (Berman, 2017). For the primary data, in-depth interview was gathered from key experts from the selected hospitals, to evaluate Hypertensive Patients' Satisfaction Regarding Outpatient Pharmacy Service Delivery while closed-ended questions were collected in addition to the primary data, thus the qualitative data. The design met the expectation of the study by addressing the case study problem and appropriately answering the research questions alongside the hypotheses.

## Research Population

The study population comprised of patients and experts from St Elizabeth Hospital, Hwidiem, St. Patrick's Hospital, Offinso and Holy



Family Hospital, Techiman The distribution of the study population is illustrated in Table 2 below.

**Table 2:** Population, Sample Size and Technique.

| Pharmacy Staff and Patients    | Sampling Population | Respondents | Qualitative (Purposive sampling Size) |
|--------------------------------|---------------------|-------------|---------------------------------------|
| St Elizabeth Hospital, Hwidiem | 40                  | 40          | 1                                     |
| Holy Family Hospital, Techiman | 35                  | 34          | 1                                     |
| St. Patrick Hospital, Offinso  | 25                  | 24          | 1                                     |
| Total                          | 100                 | 98          | 3                                     |

### Sampling Size and Technique

The study adopted the pragmatic philosophical stance, which aligns with the mixed method approach. As such, this research applied different sampling techniques. With regards to the quantitative method, the study employed the stratified random technique. This technique was adopted since the staff considered for this study were in different strata of the Hospitals. This gave each stratum an equal chance of being selected. Likewise, to ensure a high degree of transparency and fairness regarding the quantitative approach, the researchers employed the Research Advisors (2006). A sample size of one hundred (100) was appropriate for a with a confidence level of nine five percent (95%) and a margin of error of approximately two and half percent (2.5%). Again, a purposive sampling technique was applied to the qualitative aspect of this study. This technique was employed to elicit the views of top management (experts), at the Pharmacy Unit having comprehensive knowledge on Hypertensive Patients' Satisfaction Regarding Outpatient Pharmacy Service Delivery, to consolidate with the quantitative data. The principal investigator (PI) was the Hospital Administrator responsible for the general running and supervision of (Finance, Stores, plants & grounds, secretarial, transport departments) at the St Elizabeth Hospital Hwidiem, which is a non-profit making Catholic Health Institution and is duly registered under the Christian Health Association of Ghana (CHAG). Essentially, the researcher's years of experience make her understand and is mindful of the fact that Hypertensive Patients' Satisfaction Regarding Outpatient Pharmacy Service Delivery is one of the clinical issues in recent times. Thus, the researcher's drive and curiosity on this problem led to this study. The researchers' interest is to examine how the variables in the study are being adhered to and implemented in the face of Outpatient Pharmacy Service Delivery of the selected hospitals. The researchers' position is therefore a mere investigator wanting to probe into and further gain a better understanding and appreciation of the problem under investigation. Finally, the researchers' comprehension of the subject area helped in asking insightful questions on the qualitative aspect of the research work, and consolidate the quantitative data, making this study more robust.

### Discussion (Main Findings)

Understanding the satisfaction of patients is widely recognized in providing responsive, quality healthcare delivery. Satisfaction, therefore, becomes essential, as selective choices are made by patients themselves and by institutional healthcare providers. As identified in the research gaps of several principal investigators, the SERVQUAL model was useful for this research with 98 respondents participating in the research from the three hospitals out of 100 people planned. The study revealed that a high number of respondents from the three hospitals where the research was conducted were very satisfied with the service at the pharmacy departments. In St Elizabeth Hospital, 88% of respondent indicated that, staff of the pharmacy department understand hypertension very well and they are always ready to help when attending to them. Some of the respondents indicate that, at times, they are offered alternative drugs when the prescribed drugs are not available. One respondent indicated that the pharmacy staff also offer pieces of advice on how they should live in terms of diet. In Holy Family hospital 82% of respondents also stated that they were satisfied with the services of the pharmacy department when it comes to services rendered to hypertension patients. At the St Patrick Hospital, 87% of respondents expressed happiness about the services of the pharmacy staff. When it comes to gender 71 % of the respondents were male while 29 % were female. This seems to indicate that, when it comes to hypertension, many adult males have the condition more than adult females. The minimum age recorded in this study was 33 years adult male. The oldest was 81 years adult male. Three respondents indicated that the staff of the pharmacy department have time for them more than the clinic staff, because there are so many people at the clinic.

Another interesting finding was that some of the respondents indicated that, because they come for review frequently, the pharmacy staff know them or are familiar with their condition. As compared to the staff at the clinic, the respondent said that there is a frequent change of staff at the clinic and therefore they are not familiar with the patients. This is significant and answers research questions one and two. The services at the pharmacy department is reliable and assuring for hypertension patients. Again, because the three hospitals are in semi-rural communities, 31% of the respondents say their faces are familiar and that made them have good interactions with the pharmacy staff. "They dare not treat us badly as I know 4 of them very well. We attend the same church", said one respondent. The smaller the community, the good interaction they had together. The three pharmacists of the three hospitals interviewed stated that, their staff cannot afford to give bad service because they have a monitoring system to check services rendered to their clients. "Hypertensive patients are mainly adults and, in our culture, adults are respected, therefore it will be strange for our staff to treat them badly in this small community despite our established protocol in the department", a pronouncement from a pharmacist". One interesting thing mentioned was that, because the three hospitals are sister institutions under the Christian

Health Association of Ghana (CHAG), they have a common monitoring system that help them to operate at optimal service level for all their patients and not necessarily, the hypertension patients alone.

## Conclusion

This study has highlighted the fulfillment offered to hypertensive patients and how efficient management of these patients is resulting in a better health outcome. Respondents who participated in the research stated that they are happy with the services rendered to hypertensive patients. The services are reliable and assuring. Some major factors that account for the reasons is that the staff at the pharmacy departments spend a lot of time on hypertensive patients, educating them on the medication. Another factor was that they go to the hospitals frequently for review and have become familiar with the staff. The staff at the pharmacy department work there more permanently than staff at the clinic who are changed sometimes. This makes the patients more familiar with the staff at pharmacy departments and brings cordiality as well as satisfaction. Again, the common monitoring system of health facilities under the Christian Health Association of Ghana also plays a significant role in offering hypertensive patients good service.

## Recommendation

The Pharmacy departments of the three hospitals should be encouraged to intensify the counseling services they give to hypertension patients.

## Major Challenges

One major challenge was identifying hypertensive patients among the patients at the pharmacy departments to participate in the research. Some did not want to participate in the research.

## Disclosure of Interest

The authors declare that they have no conflict of interest.

## Sponsorship

The research was not sponsored by any institution.

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ISSN: 2574-1241

DOI: 10.26717/BJSTR.2024.55.008645

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