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**PATIENT SATISFACTION WITH OUTPATIENT DEPARTMENT CARE AT THE
POTSIN POLYCLINIC, GOMOA EAST DISTRICT**

**BY
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DECLARATION

I, Mercy Akua Amoah, hereby declare that except for references to other researchers' work, which have been duly acknowledged, this research for the dissertation is my own initiative to be conducted under supervision, and has not been presented for a degree in any other university.



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(Supervisor)



DEDICATION

I dedicate this work to my mother, Comfort Baaba Annan and all my siblings: Patrick Amoah, Josephine Nana Amoah, Issabella Amoah and Blessed-Freda Amoah for their immense support which words cannot describe.



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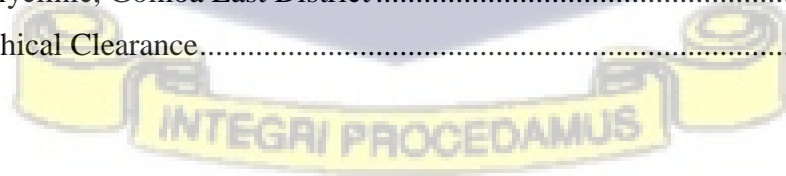


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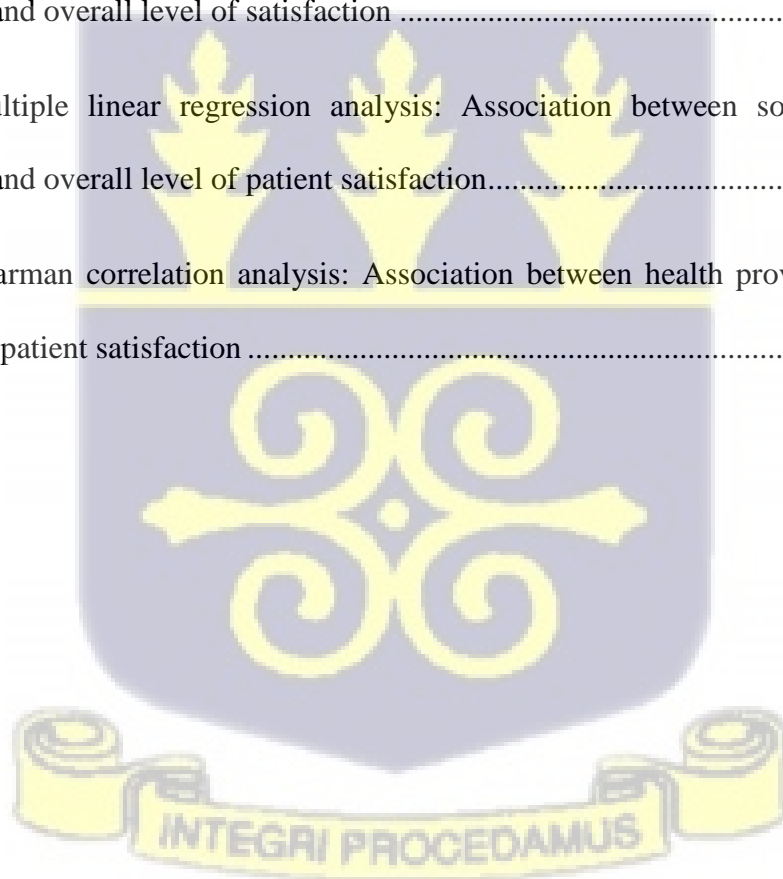
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LIST OF ABBREVIATIONS

| | |
|----------|---|
| CHAG | Christian Health Association of Ghana |
| CHPS | Community Based Health and Planning Services |
| COVID-19 | Corona Virus Disease-19 |
| EB | Emotional Burnout |
| GHS | Ghana Health Service |
| HTAR | Tengku Ampuan Rahimah Hospital |
| JCOs | Junior Commissioned Officers |
| LMICs | Low- and Middle-Income Countries |
| MMDSs | Metropolitan, Municipal and District Assemblies |
| MOH | Ministry of Health |
| MRRH | Mawenzi Regional Referral Hospital |
| NHIS | National Health Insurance Scheme |
| OPD | Outpatients' department |
| ORs | Other Ranks |
| PHC | Population and Housing Census |
| PMTCT | Prevention of Mother to Child Transmission |
| PSQ-18 | Patient Satisfaction Questionnaire-18 |
| PSQ-III | Patient Satisfaction Questionnaire-III |
| RCH | Reproductive and Child Health |
| WHO | World Health Organisation |



DEFINITION OF TERMS

Patient satisfaction: A measure of health system performance – satisfaction manifests itself as a distribution, access and utilization of health services.

Quality of care: The degree to which health services for individuals and populations increase the likelihood of desired health outcomes



ABSTRACT

Background: Patients' satisfaction is an essential indicator in medical practice and research. Therefore, assessing quality of care or patient satisfaction is necessary since it could help in understanding how patients use health care services in a particular setting. However, it appears that the provision of satisfactory health care depends on several factors, including the level of development of a particular country.

Objective: The general objective of the study was to assess factors associated with patients' satisfaction at the outpatients' department (OPD) of the Potsin Polyclinic in the Gomoa East District, Central Region.

Method: The study adopted the cross-sectional study design using quantitative methods to collect data from 354 patients who attended the Potsin Polyclinic for analysis. A structured patient satisfaction questionnaire (PSQ-18) validated by earlier researcher was adopted/adapted and administered to the patients who were recruited using the simple random sampling technique. The variables measured were grouped into dependent and independent. The data collected was analysed using statistical software like STATA version 16. Descriptive statistics was presented in tables and graphs. Chi square test and logistic regression analysis was applied to determine the association between the dependent and independent variables. A level of significance was accepted at $p < 0.05$ at 95% confidence interval.

Results: Generally, study found that the overall level of satisfaction was 64% among the respondents accessing OPD care at the Potsin Polyclinic. On the individual (patients' socio-demographic characteristics) factors, the study found that age ($p < 0.05$), education ($p < 0.05$),

and occupation ($p < 0.05$) were significantly associated with the overall level of patient satisfaction with OPD care in the multiple linear regression. For instance, respondents in the age range 21-30 years were 4.52 likely to report a higher level of satisfaction (95% CI:0.03,9.91, $p=0.044$), and those in the age range 31-40 years were 7.23 likely to report a higher level of satisfaction (95% CI:1.47-12.99, $p=0.014$) with OPD care than those in the age range 18-20 years. The study also found that health provider factors, which showed a strong correlation with patient satisfaction were technical quality ($p < 0.05$), interpersonal manner ($p < 0.05$), communication ($p < 0.05$), the financial aspect of patients ($p < 0.05$), time spent with doctors ($p < 0.05$), and accessibility and convenience ($p < 0.05$). For instance, the study found that technical quality TQ3 and technical quality TQ1 (0.51), and technical quality TQ4 and technical quality TQ2 (0.55) all revealed a strong correlation with patient satisfaction.

Conclusion / recommendation: The study concludes that patients attending the Potsin Polyclinic would be satisfied based on their age, education, and occupational status. Furthermore, patients attending the Potsin Polyclinic would be satisfied if the health providers could emphasise factors, which showed a strong correlation with patient satisfaction. The findings of the study would enable policy makers and management of health institutions to address issues of quality of care/patient satisfaction.



CHAPTER ONE

INTRODUCTION

1.0. Background to the study

Globally, it is estimated that between 5.7 and 8.4 million deaths are attributed to poor quality care each year in low- and middle-income countries (LMICs), which represents up to 15% of overall deaths in these countries (World Health Organisation, (WHO), 2020). The notion is that health care provision should be acceptable, equitable and affordable such that it can meet the expectations of the population - this means that patient satisfaction or quality of care is paramount (see Mosadeghrad, 2013). However, it appears that the provision of satisfactory health care depends on several factors, including the level of development of a particular country.

For instance, statistics show that in developed countries, patients are highly satisfied (90-95%) with the basic services provided at outpatient departments (OPD), while in developing countries, the range of patients' satisfaction varies between <50% and 95% (Olomi, Mboya, & Manongi, 2017). Studies around the sub-region showed that 84% of patients were satisfied in Nigeria while 77% were satisfied with the health services rendered at the OPD in Ethiopia (Jawahar, 2007; Ogunfowokan, & Mora, 2012; Assefa, & Mosse, 2011; Olomi *et al.*, 2017).

It is apparent that assessing quality of care or patient satisfaction (they are used interchangeably) is necessary since it could help in understanding how patients use health care services in a particular setting. Some researchers argued that quality of care and measuring level of patient satisfaction has been found to be the most useful tool to predict utilization and compliance - satisfied patients are more likely than unsatisfied ones to continue using health care services (Yaya *et al.*, 2017). Similarly, other studies observed that

patients' satisfaction is an essential indicator in medical practice and research (Zhang, Wang, Haggerty, & Schuster, 2020).

Another perspective is that understanding satisfaction with healthcare quality has been recognized as critical to many important strategies (Yedula, 2012). This position has been confirmed by another study that patients' satisfaction is a useful measure to provide an indicator of quality in healthcare and thus, needs to be measured frequently (Mohd, & Chakravarty, 2014).

While Kennedy, Tevis and Kent (2014) reported that patients' satisfaction composed of 30% of the total performance score of hospital value-based purchasing, another study intimated that the satisfaction of patients with healthcare is multi-dimensional, which is linked with the major attributes of services and providers (Hussain, Asif, Jameel, & Hwang, 2019). Other researchers noted that patient satisfaction is as important as other clinical health measures and it is a basic means of measuring the effectiveness of healthcare delivery (Joshi, & Joshi, 2017). Joshi and Joshi (2017), explained that patients' satisfaction constituted a fundamental indicator of healthcare quality since it also focuses on a way to gain market share. The argument is that the patient is the ultimate consumer of the healthcare. Studies have shown that patients' satisfaction depends on factors such as the quality of services provided, availability of medicines, interpersonal relationship between doctors and other staff, cost of services, hospital infrastructure, physical comfort, emotional support and respect for patients' preferences (Kukarini, 2018).

In spite of the benefits of patient satisfaction or quality of care, it appears that some health institutions are unable to meet the expectations of patients in this regard leading to reported

cases of patient satisfaction (see Wu, 2011). For instance, a survey suggested frequency of dissatisfaction with outpatient service in China; and how patient satisfaction has become top print for centres for medical and medicaid services (Kennedy et al., 2014). This could be attributed to the reason that traditionally, quality of health care services has been measured by means of professional standards ignoring the importance of patients' satisfaction (Haddad, Potvin, Roberge, Pineault, & Remondin, 2000; Van Duong, Binns, Lee, & Hipgrave, 2004; Olomi et al., 2017).

It is against the backdrop of recent patient dissatisfaction in health care facilities that a study suggested that policymakers need to better understand the determinants of satisfaction with the health system and how different socio-demographic groups perceive satisfaction with healthcare services so as to address health inequalities between urban and rural areas within Ghana (Yaya et al., 2017). In this light, this current study assessed factors associated with patient satisfaction with Outpatient Department care at the Potsin Polyclinic in Gomoa East District in the Central Region of Ghana.

1.1. Problem Statement

Notably, some studies have reported levels of patients' dissatisfaction at orthodox health care in some communities in Ghana and elsewhere leading to increased patronage in traditional medicine practice (see Aniah, 2015). In view of this, a study found that participants perceived poor attitude of some health workers, long waiting times, high cost of services, inadequate staff, policy of payment for health services, frequent referrals to hospitals, and lack of ambulances at facilities as being detrimental to effective delivery of quality healthcare in a rural district in Ghana (Turkson, 2009). This is exacerbated by the reality that most public health service providers are challenged with competition from the private sector in

tandem with high patients' expectation for quality health care in Ghana (Atinga, Abekah-Nkrumah, & Domfeh, 2011; Peprah, & Atarah, 2014). Peprah and Atarah (2014) found negative gaps for four of the service quality dimensions out of six, indicating that patients were not satisfied with the service quality in relation to those dimensions at the Sunyani Regional Hospital in Ghana.

There have been reported cases of dissatisfaction with OPD services in some developing countries as a study concluded that patients attending OPD in three hospitals in Kilimanjaro Region, Tanzania, demonstrated an overall dissatisfaction with quality of care (Olomi et al., 2016). Another study emphasised that most patients using public facilities were not satisfied (Kulkarni, 2018). Khamis and Njau (2014) found that patients attending OPD at Mwananyamala Hospital demonstrated an overall dissatisfaction with quality of care.

Patients' satisfaction has been reported in a lot of service areas in a hospital as a study showed that most of the patients were found to be dissatisfied with the nursing, pharmacy and laboratory services, while some others were still dissatisfied with the level of health education, communication and information they received about their illness in Southwest Ethiopia (Woldeyohanes, Woldehaimanot, Kerie, Mengistie, & Yesuf, 2015). Alhashem, Alquraini, and Chowdhury (2011) identified areas of dissatisfaction that could be quickly remedied and ensures enhancement in the areas of satisfaction with ongoing attention and emphasis in Kuwait.

Patients' dissatisfaction could be viewed against the performance and competency of health personnel as well (see Ali, 2016). Ali (2016) revealed that patient satisfaction with the

performance of the dentists explained 42.6% of the overall satisfaction, whereas their satisfaction with the clinical setting explained 31.5% of the overall satisfaction in Kuwait.

In addition, dissatisfaction could be due of lack of financial ability of patients to pay for health services (see Fenton, Jerant, Bertakis, & Franks, 2012). Fenton et al. (2012) adjustment for socio-demographic, insurance status, availability of ease burden, health status, and year 1 utilization and expenditures, and found that respondents in the highest patient satisfaction quartile had lower odds of any emergency department visit, higher odds of any inpatient admission greater total expenditures, greater prescription drug expenditures, and higher mortality.

There are other variables such as the health facility, infrastructure, policies and environment, which could provide a means of dissatisfaction among patients (see Naseerh, Zahidie, & Shaiekih, 2012). Naseerh et al. (2012) noted that patient's experiences and expectations of the healthcare services were important measures of patients' satisfaction as young age, female gender, literacy and high social class were some characteristics that could influence the level of patients' satisfaction in Pakistan. Furthermore, these analysts indicated that lack of privacy, autonomy, involvement in decision making, poor communication and sanitation or hygiene could contribute to negative patients experience leading to low patients' satisfaction. Kamra, Singh and Kumar De (2016) found that health insurance and various categories of respondent demographics, namely education and occupation were statistically associated with patients' satisfaction factors in northern India.

Appiah (2019) found that the average waiting time at the OPD was high (2 hours 50 minutes) with the majority of the patients spending more than 2 hours at the Holy Family Hospital in

Techiman, Ghana. Essilfie-Bondzie (2018), argued that poor patient satisfaction could lead to patients seeking alternate treatment and report to hospitals with complicated cases, which end in poor health outcomes. Kouakou (2018) found higher dissatisfaction rates with financial aspect, time spent with the doctor, accessibility and convenience dimensions of healthcare provision at the Sunyani Regional Hospital, Ghana.

Other studies have also mentioned other socio-demographic characteristics that could cause dissatisfaction among patients (see Padmanaban et al., 2020). For example, a study showed that factors associated with reduced patient satisfaction (<5/5) included increased age and complications in Ghana (Padmanaban et al., 2020). A study found that patients aged 50 years and more and those with poor health exhibited lower service satisfaction scores compared to young age patients and the healthy participants, respectively in Iraq (Jadoo, Yaseen, Al-Samarrai, & Mahmood, 2020). In another study in Ghana, overall patient satisfaction with perioperative nursing care was significantly associated with information provision, nurse-patient relationship, fear, concern, discomfort, and need (Anaba, Anaba, & Abuosi, 2020).

There have been recent undocumented cases of dissatisfaction among patients attending the Potsin Polyclinic in the Gomoa East District of the Central Region. This could be explained by the fact that most staff in public health facilities assume that they do clients a favour and do not see clients as the focal point of the service industry, including health care. Management of the Potsin Polyclinic has received several verbal complaints through the complaints desk of patients being dissatisfied with care delivery during their visit to the facility, especially the outpatient department. This is a critical issue for the management to address since dissatisfaction caused by long waits in an emergency at the out patients' department cannot be neglected (Wafula, 2016).

1.2. Justification of the study

The need for the conduct of this current study stems from some pertinent issues relating to health care delivery at the Potsin Polyclinic in the Gomoa East District of the Central Region. These issues revolve around the patients' dissatisfaction with current health care provision at the Outpatients Department (OPD). A cursory review of reports and observation suggests that the seeming dissatisfaction relates to both individual and health provider factors (Potsin Polyclinic, 2020). A study suggested that in such a situation, there was the need for the satisfaction level of patients attending the outpatient departments to be accessed periodically (Vadhana, 2012). Thus, an evidence-based policy review would help to assuage the challenges. This also requires a careful application of methods to collect data for analysis to unearth the solutions accordingly. However, there appears to be limited literature on the issues pertaining to the facility and the district as a whole. This study would seek to address the issues indicated by way of findings answers to them and fill the gaps in literature accordingly.

With regards to the need to assess health facility factors influencing patients dis/satisfaction, a study argued that studying customer service in primary care facilities was critical for survival of the facility since dissatisfied clients may access healthcare with different providers (see Essilfie-Bondzie, 2018). Vadhana (2012) suggested the need for adequate quantity of drugs to be available in the hospital pharmacy in order to attract and make patients satisfied. The lack of these may lead to low outpatient department attendance and reduction in revenue generation of the facility. This was reflected in a study, which found that the potential health service coverage based on availability of health services was estimated to be 86.7% at the Wolaita Sodo University Teaching Hospital, Southern Ethiopia

(Sagaro, Yalew, & Koyira, 2015). This provides the need for management of health institutions to consider customer service and availability of drugs and medicines at the OPD.

This view is supported by a study, which argued that hospital management should focus on improvement of patient-provider relationship, availability of equipment and drugs and affordability of hospital bills (Olomi et al., 2016). Anaba, Anaba, and Abuosi (2020) found evidence that overall patient satisfaction was significantly influenced by nurse-patient relationship in Ghana. This means that improvising provider-patient communication would enhance patients' satisfaction with health care services. Confirming this, a study suggested that hospital management should focus on improvement in communication skills among OPD staff in showing compassion, politeness and active listening, ensure availability of essential drugs, and improvement in clinicians' prescription skills (Khamis & Njau, 2014). It appears that no study has yet evaluated the influence of provider-patient relationship and availability of medicines on enhancing patients' satisfaction at the Potsin Polyclinic. Therefore, the findings of this study will provide the management of the Polyclinic an in-depth knowledge of negative experiences of clients and suggest strategies towards reducing or eradicating them. This will provide enormous benefits to the patients and the facility as a whole.

In clear terms, it is anticipated that effective leadership role in addressing patients' dissatisfaction in health facilities would enhance the image of these institutions. Evidence is shown where a study observed statistically significant differences in the overall impression towards outpatient department (OPD) services among the Junior Commissioned Officers (JCOs) and Other Ranks (ORs) within a military establishment in India (Mohd & Chakravarty, 2014). Mohd and Chakravarty (2014) suggested the need to address this issue by the hospital leadership towards achieving consumer delight. However, it seems that no

such a study has been conducted at the Potsin Polyclinic in the Central Region to establish patients' satisfaction with the outpatient department services. The findings of this study will provide evidence-based research regarding involvement of leadership in the assessment of patient's satisfaction with health care services at the out patients' department of Potsin Polyclinic and fill the gaps in literature.

Arguably, improving health provider attitude and competence would lead to delivery of quality health care that will meet patients' satisfaction. Vadhana (2012) supported this perspective and suggested that patients' satisfaction studies should be extended in scope to include comparative studies between patient satisfaction and staffs' satisfaction and between the hospital services and other hospitals' services in order to gain better views of the field and produce more interesting-results. In this regard, a study recommended that efforts should be made to improve service orientation among doctors through periodical professional development programmes at hospitals and national levels, which will be essential to boosting a country's health service satisfaction (Ganasegeran et al., 2015).

Ali (2016) found that respondents exhibited highest satisfaction with the dentists' performance, followed by the dental assistants' services, and the lowest satisfaction with the center's physical appearance and accessibility. It looks like these issues have yet to be addressed at the Potsin Polyclinic. Therefore, there is the need for this study, which will not only contribute to the existing body of knowledge of factors associated with patients' satisfaction in general, but may also provide new knowledge specifically of health care services rendered at the outpatient's department of Potsin Polyclinic.

This study is needed to assess the association between patients' socio-demographic characteristics and patients' satisfaction, which may be contributory factors to the current dissatisfaction reported at the OPD of Potsin Polyclinic. A study observed that after adjusting for socio-demographic and other variables, patient satisfaction with primary care was predominantly determined through privacy, decision-making, communication, and respectfulness in Ghana (Ofei-Dodoo, 2019). Ofei-Dodoo (2019) reported that the model used explained 54.6% (Nagelkerke R^2) of the variance in satisfaction and correctly classified 85.2% of cases, indicating that patient satisfaction and treatment outcomes were significantly related. Alrubaiee and Alkaa'ida (2011) confirm the varying importance of some socio-demographic variables on patient perception of healthcare quality, patient satisfaction, and patient trust. A study suggested that researchers, practitioners, and administrators should be aware that religion may significantly influence how patients rate their health care experiences in Chicago, US (Batbaatar, Dorjdagva, Luvsannyam, Savino, & Amenta, 2017).

It expected that the findings of this study would enlighten the management of the Potsin Polyclinic on how to focus resources on what is the most and urgently needed priorities in order to improve patient's satisfaction with healthcare, especially the outpatient's department. This study will adopt the Donabedian's (1980, 1988) quality of care model to assess factors associated with patient satisfaction with the outpatient department (OPD) care at the Potsin Polyclinic, in the Gomoa East District, Central Region.

1.3. Objective of the Study

The objective of this study is divided into two parts stated below.

1.3.1. General Objective

The general objective of the study was to assess factors associated with patient satisfaction with outpatients' department (OPD) care of the Potsin Polyclinic in the Gomoa East District, Central Region.

1.3.2. Specific Objectives

The following specific objectives helped to address the general objective:

1. To determine the level of patient satisfaction with OPD care at the Potsin Polyclinic.
2. To assess the association between individual (socio-demographic characteristics) factors and patient satisfaction with OPD care at the Potsin Polyclinic.
3. To assess the association between health provider factors and patient satisfaction with OPD care at the Potsin Polyclinic

1.3.3. Research Questions

The following questions helped find answers to address the specific objectives:

1. What is the level of patient satisfaction with OPD care at the Potsin Polyclinic?
2. What is the association between individual (socio-demographic characteristics) factors and patient satisfaction with OPD care at the Potsin Polyclinic?
3. What is the association between health provider factors and patient satisfaction with OPD care at the Potsin Polyclinic?

1.4. Outline of the Dissertation

The report of this dissertation is presented in chapters one to six. In chapter one, the background to the study, problem statement, justification, objectives and organization of the study have been presented. In chapter two, the literature review and conceptual framework of

the study are presented. In chapter three, the methods that were applied to collect data focusing on the study design, study setting, study population, inclusion and exclusion criteria, the sampling and sampling techniques, and data collection and analysis procedures are presented. In chapter four, the results of the study are presented. In chapter five, a discussion of the findings of the study and how they relate to current literature is presented. In chapter six, the summary, conclusions and recommendations are presented.



CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0. Introduction

This chapter presents the methods to be applied to collect data for analysis in this study. The chapter is divided into sections.

2.1. Patient satisfaction / Quality of care

There appears to be a thin line between the concept patient satisfaction and quality of care (see Sofaer & Firminger, 2005). Indeed, an analyst proposed that ‘before assessment can begin, we must decide how quality is to be defined and that depends on whether one assesses only the performance of practitioners or also the contributions of patients and of the health care system; on how broadly health and responsibility for health are defined; on whether the maximally effective or optimally effective care is sought; and on whether individual or social preferences define the optimum’ (Donabedian, 1988:1743).

Some researchers explained that patients’ satisfaction is a measure of health system performance and can be used as a foundation of encouraging health care providers to become more responsible to their patients – satisfaction manifests itself as a distribution, access and utilization of health services (Olomi et al., 2016). Gangai (2015) explained that patient satisfaction is an instrumental tool for identifying shortcomings and challenges of the health system, and provides patients with a constructive outlet to rate their hospital experience. On the other hand, quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes. It is based on evidence-based professional knowledge and is critical for achieving universal health coverage (World Health Organisation (WHO), 2020).

Different studies have found different levels of patient satisfaction with health care services - health care systems are now also being reviewed to assess patient satisfaction with regard to the quality of care provided (Gangai, 2015). This is also due to the reason that patient satisfaction surveys are essential in obtaining a comprehensive understanding of the patient's need and their opinion of the service received - It is a vital tool in evaluating the quality of healthcare delivery service in hospitals (Vadhana, 2012).

For instance, a study found that overall, patient satisfaction with the health care service provided at OPD clinics at Wolaita Sodo University Teaching Hospital, Southern Ethiopia was 54.2% (Sagaro et al., 2015). A related study found that nearly two third of the patients were satisfied with the service they received from the hospital in Southwest Ethiopia (Woldeyohanes, Woldehaimanot, Kerie, Mengistie, & Yesuf, 2015). Similarly, a study found that overall, 90.3% of patients were satisfied with the level of care they received with 89.5% suggesting that they would recommend the Untunjambili Hospital in South Africa, to others (Gangai, 2015).

In Ghana, a study found that the 'five-factor model support/care, environment of the facility and waiting time determined patients' satisfaction with quality of healthcare delivery - the explanatory power of the dependent variable was explained by 51%' (Atinga, Abekah-Nkrumah, & Domfeh, 2011: 548). Another study also found that overall, the patients reported positive experiences with all aspects of their primary care services as 30% were very satisfied and 57% were satisfied with their last outpatient visit (Ofei-Dodoo, 2019).

However, other studies have also reported dissatisfaction with health care services among patients. For instance, a study indicated that patients' level of satisfaction mean gap score was

(-2.88 ± 3.1) indicating overall dissatisfaction with the quality of care (Khamis & Njau, 2014). Khamis and Njau (2014) observed that the level of dissatisfaction in the five service dimensions were as follows: assurance, reliability, tangible, empathy, and responsiveness.

2.2. Factors associated with patient satisfaction / quality of care

This section presents analysis of factors associated with patients' satisfaction/quality of care based on literature. These include, individual (socio-demographic characteristics), and health facility factors. This links in with the suggestion that it is important to measure patients' satisfaction with OPD services using variables consisting of socio-demographic, socioeconomic, and health characteristics in the case of Malaysia (Ganasegeran et al., 2015).

2.2.1. Individual (socio-demographic characteristics) factors and patient satisfaction

This section presents studies that have examined the association between socio-demographic characteristics and patient satisfaction. In a study, a self-administered questionnaire was used consisting of questions on socio-demographics and work characteristics, sources of job stress, professional fulfillment, engagement, and emotional burnout (EB) (Ganasegeran & Al-Dubai, 2014; Al-Dubai et al., 2013). Al-Dubai et al. (2013) reported that sociodemographic characteristics, performance pressure, and satisfaction with policies were significantly associated with emotional burnout (EB).

Alrubaiee and Alkaa'ida (2011) tested the significance of socio-demographic variables in determining healthcare quality, patient satisfaction, and patient trust. Other researchers found that patient-related factors included socio-demographic characteristics of patients, stage of disease as well as patients' perception of a relationship of trust and feeling of being involved in decisions about their care (see Sofaer, Crofton, Goldstein, Hoy, & Crabb, 2005; Renzi et

al., 2001; Schoenfelder, Klewer, & Kugler, 2011; Mukhtar et al., 2013). Some of these variables (socio-demographic characteristics) have been discussed below.

Age

Studies have identified age of patients as having had either a significant or otherwise association with patient satisfaction. Tehrani, Feldman, Camacho and Balkrishnan (2011) concluded that the great majority of patients who reported their satisfaction online were highly satisfied with their outpatient medical care in the United States of America. However, Tin-Oo, Saddki, and Hassan (2011) found that age was not associated with satisfaction at the Hospital Universiti Sains Malaysia dental clinic. Since this was a study on patients' satisfaction with quality dental care, it was found that unhappiness with tooth color and feelings of having protruding teeth also had a significant negative influence on patient satisfaction with general dental appearance.

Sex

The sex or gender of respondents has been associated with patient satisfaction with healthcare services. Ganasegeran et al. (2015) found that gender, income level, and purpose of visit to the clinic were important correlates of patient satisfaction when they explored factors associated with patient satisfaction with outpatient medical care in Malaysia. Similarly, Kamra et al. (2016) found that health insurance and various categories of respondent demographics, namely gender, were significantly different statistically associated when they examined factors affecting patient satisfaction and their relationships with respondent demographics for tertiary-level health-care services in multispecialty hospitals located in northern India. However, a study argued that most patients were not satisfied with their

dental appearance with a greater percentage of females expressing dissatisfaction than males at the dental clinic of Hospital Universiti Sains Malaysia (Tin-Oo et al., 2011).

Educational status

The educational qualification of patients could associate with their level of satisfaction with healthcare services. Hernández-García et al. (2009) found that educational level was the only variable, which was significantly associated with satisfaction among patients at the outpatient clinics of the Preventive Medicine Department at the Hospital General Universitario in Alicante. Ali (2016) observed that female participants with less than a bachelor's degree, and younger individuals were more satisfied with the clinical and nonclinical dental services in Kuwait. A study indicated that average satisfaction was higher among clients with a primary or secondary education compared with none at the Mulago Hospital (Nabbuye-Sekandi et al., 2011).

Marital status

It could be observed that marital status of individuals could associate or otherwise with their satisfaction with outpatient department services. This was confirmed in a study, which showed that patients who were married, treated at the surgery and obstetrics–gynaecology units were at least five times more satisfied with the nursing care in Turkey (Karaca, & Durna, 2019). Vãn France et al. (2011) also noted that a number of socio-demographic factors, including marital status were significantly associated with patient satisfaction. On the other hand, other studies in consumer services found that marital status and age had no impact on customer satisfaction/patient satisfaction (Meesala, & Paul, 2018).

Residence

Arguably, the level of patient satisfaction could be attributed to their area of residence. Yaya et al. (2017) indicated that geographical location of residence was a key factor of satisfaction with primary healthcare services in Ghana. Another study found some evidence for differences in patient satisfaction by place of residence among patients attending urban hospitals in Podlaskie Province, north-eastern Poland (Maślach, Karczewska, Szpak, Charkiewicz, & Krzyżak, 2020). A confirmatory study showed that patients who lived inside Toronto were usually and substantially more satisfied than patients who lived outside Toronto, Canada (Levinton, Veillard, Slutsky, & Brown, 2011). A contrary finding was that patients who came from suburbs were more satisfied with management of the hospitals in the public sector hospitals in a district in Pakistan (Ahmad, Nawaz, & ud Din, 2011).

Religious affiliation

Religious affiliation has been observed to have an association with patient satisfaction. A study highlighted that higher levels of religious salience were significantly related to being very satisfied with one's health care in United States of America (Batbaatar et al., 2017). Batbaatar et al. (2017) indicated that religious patients and those experiencing more severe pain were more likely both to desire and to have discussions of spiritual concerns in Chicago, US. Nevertheless, a study noted that although a large majority of patients accepted an offer of physician-led prayer, no significant short-term impact on patient satisfaction was detected in the US (Mann et al., 2005).

Occupation

A study found that demographic characteristics such as occupation were significantly associated with the levels of patient satisfaction in Pakistan (Jalil, Zakar, Zakar, & Fischer,

2017). A study found that 36% of patients were unskilled workers, 10% were unemployed and 28% were housewives in Rajindra Hospital, Punjab, India (Singh, Kaur, & Rochwani, 2013). Ampofo and Opoku-Danso (2017) found that among the patients, civil servants (32.1%), farmers (9.9%), business people (23.6%) and professionals (6%) indicating that as many as 10.4% were unemployed in Ghana.

National Health Insurance Status (NHIS)

The national health insurance (NHIS) status is assumed to be associated with patient satisfaction. Kodom, Owusu and Kodom (2019) concluded that NHIS clients did not receive the quality of healthcare the scheme promised, and this has implications for premium renewals and health-seeking behaviour in Ghana. Conversely, a study showed that there was no significant difference in clients' satisfaction between insured and uninsured clients in Ghana (Kouakou, 2018). Kouakou (2018) found that both insured and uninsured gave favourable rating, denoting that overall, quality at Sunyani Municipal hospital was somewhat good as patients were treated fairly, regardless of their insurance status.

2.2.2. Health facility factors and patient's satisfaction

There are some health care provider factors that could cause (dis)satisfaction among patients at the OPD in most institutions. A study found that patient satisfaction was the highest in terms of service factors or tangible priorities, particularly technical quality and accessibility and convenience at the outpatient medical care at the Tengku Ampuan Rahimah Hospital (HTAR), in Malaysia (Ganasegeran et al., 2015). Another study noted that even though clients who visited a private hospital paid for all services, excluding consultation, their level of satisfaction with the quality of healthcare was relatively higher than those who visited the public hospital in Ghana (Kodom, Owusu, & Kodom, 2019).

However, a study found a gap on health services provision in all three hospitals, signifying overall dissatisfaction among patients at the Mawenzi Regional Referral Hospital (MRRH) in Kilimanjaro Region in Tanzania (Olomi et al., 2016). The overall satisfaction with outpatient health care services provided was low at Wolaita Sodo University Teaching Hospital, Southern Ethiopia (Sagaro et al., 2015). Another study observed that satisfaction was low in terms of service orientation of doctors, particularly the time spent with doctor, interpersonal manners, and communication during consultations at the outpatient medical care in Malaysia (Ganasegeran et al., 2015). Jadoo et al. (2020) argued that the high demand for the use of health resources in metropolitan cities by the rural population indicated inequality in the distribution of health services and an increase in the rural-to-urban displacement in Iraq (Jadoo et al., 2020).

To create the needed balance, it is assumed that healthcare providers are increasingly becoming interested in patient satisfaction as an indicator to assess the quality of health services (Jadoo et al., 2020). This explains why a study recommended that hospital management and service providers should give attention to reduce waiting time, ensure good interactions with patients, improve drug availability and maintain privacy of patients in order to improve the level of patient satisfaction (Sagaro et al., 2015). Some of the variables that could lead to patients dis (satisfaction) with OPD care have been explained below.

Competency of health providers / Technical Quality

The measurement of patient satisfaction could be linked with the competence or technical ability of health providers. A study revealed that client's perceived technical competence of the provider, accessibility, convenience and availability of services, especially prescribed drugs were the strongest predictor of general satisfaction at Mulago hospital, Uganda

(Nabbuye-Sekandi et al., 2011). In another study on the competency of the health provider, it was indicated that majority of the patients reported being satisfied with the doctor and a large proportion of them said that they would re-visit the hospital in Malaysia (Tin-Oo et al., 2011). Agusta, Kusnanto and Novian (2019) found that upholding trust, compassion, and competence of health providers significantly predicted client satisfaction with healthcare at a hospital in Kediri District, India. Other studies have also revealed the need for cultural competencies to enhance patients' satisfaction with healthcare. Govere and Govere (2016) demonstrated that cultural competence training of healthcare providers was significantly associated with increased patient satisfaction. Faezipour and Ferreira (2013) explained that the social component, which focuses on equity, empowerment, accessibility, participation, cultural identity, and institutional stability, is one of the important areas in healthcare sustainability - patient satisfaction is a key factor in the social element.

On the other hand, the lack of competence of health providers could lead to patient dissatisfaction. For example, a study in Malaysia, reported that patient dissatisfaction with general dental appearance was significantly associated with unhappiness with tooth color and the opinion that their teeth protruded (Tin-Oo et al., 2011). Another study observed among other things that the lack of empathy, poor level of competencies and disregard for patient suffering in medical practice had caused substantial dissatisfaction towards public healthcare service providers in Malaysia (Ganasegeran & Al-Dubai, 2014; Andaleeb, Siddiqui, & Khandakar, 2007; Al-Dubai, Ganasegeran, Perianayagam, & Rampal, 2013).

Health provider-patient relationship / Interpersonal manner

It is believed that patient satisfaction will be enhanced based on the kind of relationship that exists between the provider and patient. Studies showed that patient satisfaction prompts

compliance with medical advice and treatment, service utilization, and enhancement of the doctor-patient relationship (Ganasegeran, & Al-Dubai, 2014; Ganasegeran et al., 2015). Gangai (2015) found that statements relating to personality such as staff friendliness, and doctors treating patients respectfully scored highly among patients in South Africa. Meesala and Paul (2018) indicated that reliability and responsiveness impacted patients' satisfaction in India. Dzomeku (2011) argued that maternal satisfaction was determined mostly by the attitude of care givers in Ghana. Correspondingly, Atinga (2012) demonstrated that the human dimensions of service quality (interaction with service provider and attitude of healthcare providers) were perceived by the insured patients to be good, and they constituted significant determinants of perceived service quality in Ghana,

Provider-patient communication

In the context of Ghana, language or communication plays an important role in how people understand each other. Thus, health provider-patient communication should be geared towards fulfilling this cultural requirement. Hence, Dzomeku (2011) recommended that staffs of a hospital should have frequent continuing education on communication and interpersonal relationship. This assertion is similar to other jurisdictions. Sharma, Sharma, and Sharma (2011) noted that the overall satisfaction regarding the doctor-patient professional and behavioral communication was more than 80% at almost all the levels of health care facilities in India. Moreover, a study showed that patients' perceptions of patient-provider communication, and health education quality constituted strong predictors for satisfaction in Lebanon (Hemadeh, Hammoud, Kdouh, Jaber, & Ammar, 2019).

Nevertheless, other analysts have also showed that patients were dissatisfied with provider-patient communication in some health institutions. Woldeyohanes, Woldehaimanot, Kerie,

Mengistie and Yesuf (2015) found that most of the patients were dissatisfied the level of health education, communication and information they received about their illness. Alhashem et al. (2011) noted that the time for communication between physician and patient was not enough. Consequently, a study suggested that nurses and physicians should work to improve health education, communication and understanding between doctors/nurses and patients in Ethiopia (Woldeyohanes et al., 2015).

Cost of health care / financial aspect

Arguably, in an era where most Ghanaians have had to pay for health care either through out-of-pocket payment method or the national health insurance scheme (NHIS), cost would definitely have an influence on patient satisfaction. The evidence showed that although cost of service and patient satisfaction did not have any statistically significant effect on the choice of a hospital, patients preferred services from private hospitals, which were more expensive compared with a public hospital in Ghana (Bamfo, & Dogbe, 2017). Another study found that there was higher overall patient satisfaction with health care and prescription drug expenditures in the US (Fenton, Jerant, Bertakis, & Franks, 2012). Kamra et al. (2016) revealed that factors, which affected patient satisfaction included affordability and convenience in northern India.

However, another study observed that out of 80% of patients who were satisfied with basic amenities, 40% were of the view that services were costlier than their affordability (Sharma et al., 2011). Other studies have reported mixed reaction to the influence of cost on patient satisfaction. Salim et al. (2019) found that there was no significant difference in patient satisfaction with respect to hospital cost between hospitalist and non-hospitalist (NH) service. Press and Fullam (2011) suggest that where patient satisfaction is utilized in pay for

performance calculations, it constitutes a very small portion of the total money at stake and is unlikely to lead to “gaming” through acquiescence to patients’ requests for unnecessary treatments.

The above analysis explains why some studies observed that patient satisfaction represents patient fulfillment in regards to the cost, accessibility to services and resources (Faezipour & Ferreira, 2013) and cost savings (Woo, Lee, & San Tam, 2017). Therefore, Nabbuye-Sekandi et al. (2011) suggested that significant factors, including category of costs incurred and accessibility of services should be explored by hospitals for potential improvements in quality of the health service delivered.

Waiting time / Time with the health providers

Waiting time at the health facility in one of the key indicators for measuring patient satisfaction. A study showed that although majority of the patients waited for more than 1h before being attended to, more than half of them were satisfied with the services rendered to them (Umar, Oche, & Umar, 2011). Atinga (2012) noted although waiting time was generally, perceived to be long, it was not in any way associated with patient perception of quality of care in Ghana. Tehrani, Feldman, Camacho, and Balkrishnan (2011) revealed that waiting time, spending time with patient were statistically significantly associated with patient satisfaction in the United States of America. French, Lindo, Jean, and Williams-Johnson (2014) showed that there was no significant difference in the length of time patients spent in the emergency department based on whether or not they were triaged by a physician led team or by a team of nurses only - waiting time was significantly influenced by factors, which came into play after triage, which increased patient satisfaction in Kingston Jamaica.

Alarcon-Ruiz, Heredia and Taype-Rondan (2019) found that in Peruvian ambulatory care facilities, both waiting time and consultation time showed an association with overall patient satisfaction, which was stronger in the first 90 min of waiting time and in the first 15 min of consultation time. Bleustein et al. (2014) also showed that the clinical ambulatory patients experience was heavily influenced by the time they spent waiting for a care provider.

Contrary to the satisfaction expressed by patients with waiting time, other studies reported otherwise. A study showed that respondents who waited less than or equal to 30 minutes in waiting area preceding consultation were more satisfied than those who waited 60 minutes and above in Southern Ethiopia (Sagaro et al., 2015). A study observed that general satisfaction was good, although aspects like waiting time and signs could be better, if changes were made to management of appointments at the Hospital General Universitario in Alicante (Hernández-García et al., 2009). Similar observations have been made that hospital administration system should work on new innovative approaches to keep improving other services, including waiting time towards bringing about patient satisfaction (Woldeyohanes et al., 2015). Alarcon-Ruiz et al. (2019) suggested that management should seek to design interventions to improve waiting times and consultation times in ambulatory care facilities. Umar et al. (2011) recommended the need for health care institutions and providers to put in place measures aimed at reducing waiting time and ensuring patient satisfaction.

Health facility and infrastructure / Accessibility and convenience

The environmental or physical factors are assumed to have had an influence on patient satisfaction with health care services. Gangai (2015) noted that in terms of infrastructure, respondents were mainly satisfied with the seating arrangements, cleanliness and air circulation, but were unhappy with the state of the toilet facilities and the unavailability of

drinking water. Ali (2016) indicated that additional improvements with regard to the accessibility and physical appearance of the dental centres were needed. Pajnkihar, Štiglic and Vrbnjak (2017) observed that differences in perceptions of curative factors between health care institutions were probably the result of different institutional factors, which must be taken into account for enhancing patient satisfaction. Dzomeku (2011) also found that multiple factors influenced mothers' satisfaction with their care in labour, birth and the lying-in period in Ghana.

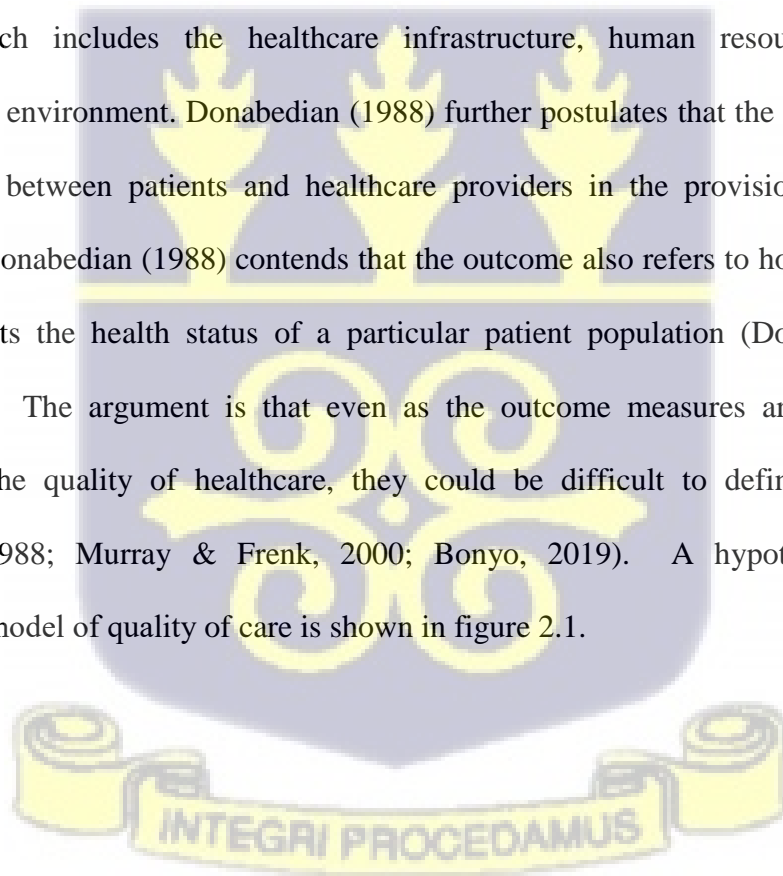
Alhashem et al. (2011) observed that 70% of patients said that they would go to the emergency room of the hospital in future if needed instead of going to the primary care clinic in Kuwait. A study concluded that a vast majority of patients agreed that the hospital was clean and adequately ventilated (Tin-Oo et al., 2011). Since physical facilities improves accessibility, a study suggested that if care providers wish to improve the quality of health services from a patients' perspective, they should give priority to improving accessibility and technical quality ((Ziaei et al., 2011).

2.3. Theoretical framework

The design of the conceptual framework of the study (see figure 2.2 below) was based on the quality of care model as proposed by Donabedian (1988) though there are other models and advocates of quality of care (Ruble, 1989). Rublee (1989) suggests that there are two principal dimensions of quality of care for individual patients, which are access and effectiveness. This analyst explained that within effectiveness, there are two key components, which are effectiveness of clinical care and effectiveness of inter-personal care. These elements could be discussed in terms of the structure of the health care system, processes of care, and outcomes resulting from care. Rublee (1989) indicated that the

framework relates quality of care to individual patients noting that that quality of care is a concept that is at its most meaningful when applied to the individual user of health care. However, care for individuals must be placed in the context of providing health care for populations, which introduces additional notions of equity and efficiency.

However, this study adopted the Donabedian's (1988) healthcare model of quality of care (showing structure, process and outcome), which is one of the dominant frameworks applied in healthcare. This framework provides a basis for researchers to understand what could be applied to examine the quality of care (see Donabedian, 1988; McDonald et al., 2007; Bonyo, 2019). Donabedian (1988) explains that the structure describes the context in which care is delivered, which includes the healthcare infrastructure, human resources, financing, equipment, and environment. Donabedian (1988) further postulates that the process connotes the interaction between patients and healthcare providers in the provision of healthcare. Additionally, Donabedian (1988) contends that the outcome also refers to how the healthcare provision affects the health status of a particular patient population (Donabedian, 1988; Bonyo, 2019). The argument is that even as the outcome measures are the proximate indicators of the quality of healthcare, they could be difficult to define at times (see Donabedian, 1988; Murray & Frenk, 2000; Bonyo, 2019). A hypothetical form of Donabedian's model of quality of care is shown in figure 2.1.



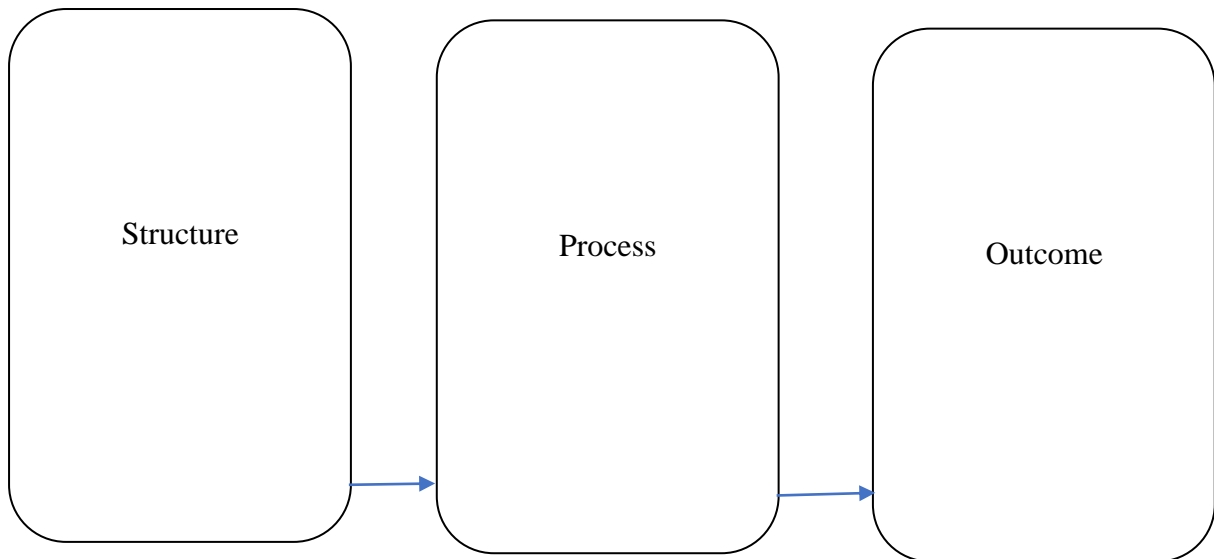


Figure 2.1: Hypothetical quality of care. Source: Donabedian (1988).

2.4. Conceptual framework for patients' satisfaction

Based on the theoretical framework of quality of care, the study adopted the conceptual framework, which shows the interaction between the individual (socio-demographic characteristics) factors and the health provider factors to produce patient satisfaction as the outcome while delivering outpatient department care at the Potsin Polyclinic. This means, the framework in figure 2.2 shows that there is a relationship between patients own demographic characteristics such as age, sex, education, marital status, religious affiliation, and patient satisfaction. There is an inverse relationship between patient satisfaction indicators are the same as the health provider factors such as health provider competency of health providers (technical quality), health provider-patient relationship (interpersonal manner), provider-patient communication, cost of health care (financial aspect), waiting time (time with the health providers), and health facility and infrastructure (accessibility and convenience). A similar framework has been used by earlier researchers (Marshall, & Hays, 1994).

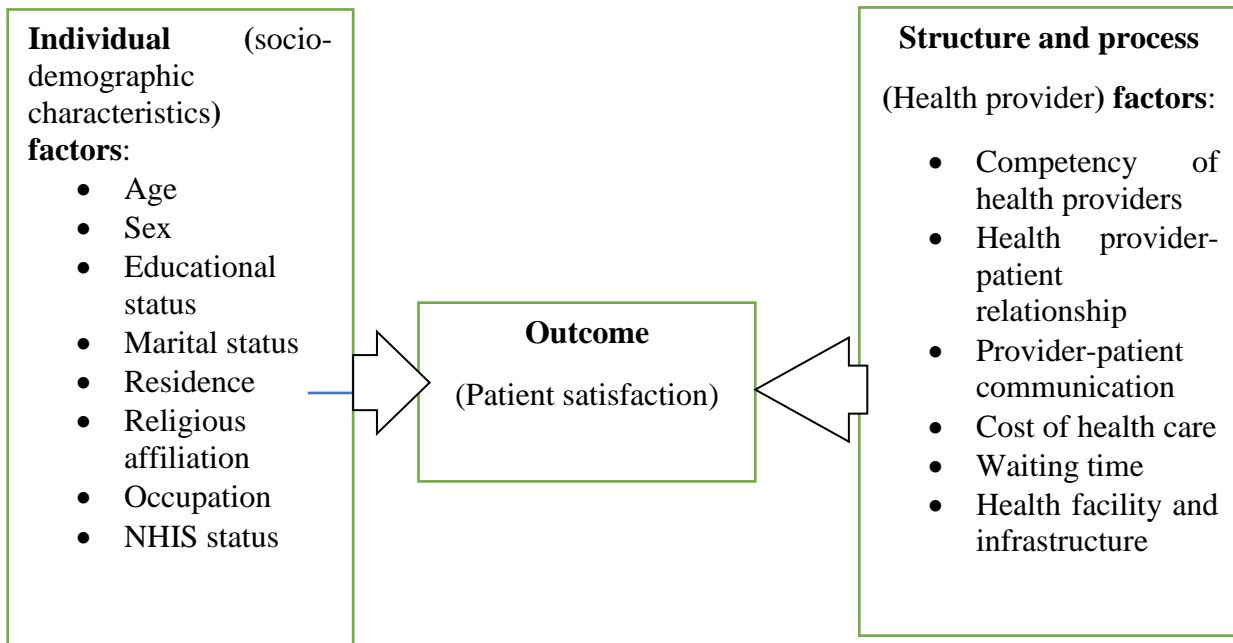


Figure 2.2: Conceptual framework for patients' satisfaction. Source: Donabedian (1988).

2.5. Chapter summary

This chapter has presented analysis of the related studies and concepts concerning the current study. The analysis has shown that there are gaps in the literature related to the study of patient satisfaction at the OPD at the Potsin Polyclinic in the Gomoa East District of the Central Region. These gaps relate to the key variables under the individual patients' factors and health provider related factors. The next chapter presents the methods applied to collect empirical data for analysis in this study.



CHAPTER THREE

METHODS

3.0. Introduction

This chapter presents the methods applied to collect data for analysis in order to address the objectives of the study. There are about ten sections within this chapter. Section one presents the philosophical perspective. Section two presents the study design. Section three presents the study area. There are also sections on study population, sample size, sampling method, study variables, data collection, data analysis and ethical considerations. The chapter ends with a summary.

3.1. Philosophical perspective

The researcher's philosophical perspective was that of positivist, which formed the basis on which the quantitative research method was adopted. Researchers explain that positivism is counted on the philosophical stance of a natural scientist who is working with observable reality within society leading to production of generalizations (Scotland, 2012; Saunders et al., 2012; Alharahsheh, & Pius, 2020). This means that positivism relates to the importance of what is given in general, with more strict focus on pure data as well as facts without being influenced by interpretation of bias of human interaction (Scotland, 2012; Saunders et al., 2012; Alharahsheh, & Pius, 2020). Alharahsheh and Pius (2020) note that the positivist paradigm would enable researchers to have more statistical reliance and generalisation leading to development of universal laws and findings.

Opposed to the positivist perspective is interpretivism, which is more concerned with in-depth variables and factors related to a context, and considers humans as different from physical phenomena as they create further depth in meanings with the assumption that human

beings cannot be explored in a similar way to physical phenomena (Alharahsheh, & Pius, 2020).

The positivist perspective was adopted for this study since there was the need to quantify the responses provided by the research participants for easy reference in terms of statistical presentation of the research outcome.

3.2. Study Design

The researcher adopted the cross-sectional study design using quantitative methods to collect data for analysis in this study. It is explained that a cross-sectional study design is the type of research study in which either the entire population or a subset thereof is selected, or from these individuals, data are collected to help answer research questions of interest (Olsen, & St George, 2004). The cross-sectional study design was applied because it is relatively quick and easy (MacDonald, Greig, & Baracos, 2011). MacDonald et al. (2011) noted however, that it does not permit distinction between cause and effect.

A quantitative research method is related to measuring quantity with application to a specific phenomenon, and this is expressed in terms of quantity, which is used often to test existing theories (Creswell, 2002; Biggam, 2008; Alharahsheh, & Pius, 2020). The quantitative method was applied because it places emphasis on numbers and figures in the collection and analysis of data, which makes generalisation possible (Bryman, 2001, Eyisi, 2016). The cross-sectional design and quantitative research method were used to select participants at the outpatient department of the Potsin Polyclinic at one point in time during the data collection period in this study.

3.3. Study Area

The study was conducted at the Potsin Polyclinic in the Gomoa East District of the Central Region.

Geography

The Gomoa East District Assembly is one of the 260 Metropolitan, Municipal and District Assemblies (MMDSs) in Ghana and forms part of the 22 MMDAs in the Central Region. The district was carved out of the Gomoa Central District Assembly (Formerly Gomoa East) as one of the 38 newly created and upgraded districts Assemblies in 2018 and has its capital as Potsin. Created with LI 2340, the Gomoa East District Assembly was inaugurated on March 15, 2018, alongside other 37 newly created districts, the district occupies an area of 539.69 square kilometers. Having Potsin as the district capital, it is situated between latitudes 5°14' north and 5°35' north and longitude 0°22' west, and 0°54' west. It is located in the south-eastern part of the Central Region. It is also bordered by a number of districts, to the North by Awutu Senya, North-East by Awutu Senya East, North West by Agona West, and West by Gomoa Central, to the East by Ga South in the Greater Accra Region and to the South by Effutu. The district is bordered at its south-eastern side by the Atlantic Ocean.

Demography

The 2010 Population and Housing Census (PHC) showed that the sex structure of the population in the district had a higher percentage of females (52.5%) than males (47.5%). The sex ratio of 90.4 indicates an excess of females over males in the district – quite simply, about 90 males to 100 females, and, the dependency ratio 78.5 means about 79 dependents (children and the aged) for every 100 people in the workforce. This ratio is higher for rural (86.9) than urban (71.5). The rural had more child dependency (76.3) than urban (67.5) while

the old age dependency ratio was higher in the rural (10.5) than urban (4.0) areas. The 2010 PHC revealed that there were more residents in the urban areas (52.4%) than rural areas (47.6%) in the district. The district's percentage of the regional population was 9.4% with 10.5% in urban and 8.5% in the rural areas. The population is growing at a rate of about 3.1%. Table 3.1 shows the total population and the categories mostly used by Ghana Health Service (GHS).

Table 3.1: Gomoa East District Population: 2018-2020

| 2018 | | | 2019 | | | 2020 | | |
|-----------|---------------|--------|-----------|---------------|--------|-----------|-------------------|--------|
| Total Pop | Exp Preg/>1yr | WIFA | Total Pop | Exp Preg/>1yr | WIFA | Total Pop | chn< 1/ Exp preg/ | WIFA |
| 244,955 | 9,789 | 58,789 | 171,375 | 6,855 | 41,816 | 174,108 | 6,964 | 41,786 |

Economic status

The 2010 PHC reported a total population of 207,071 for the Gomoa East District out of which 124,105 were persons 15 years and older, representing 59.9% of the total population. The statistics showed that 60% of the population of the district was economically active out of which most were employed (92.4%), only 7.6% were unemployed of which more than half (58.3%) was seeking work for the first time and available for work. Also, 31% of the population aged 15 years and older was economically not active, out of which 46.9% was in full time education.

About 65.5% of the workforce 15 years and older in Gomoa East District were self – employed without employees: females (76.3%) and males (53.2%). A few of those who are

self-employed (5.3%) have also employed others, and the practices is more popular with the male self-employed (7.1%) than their female counterparts (3.7%). Respectively, large proportions of males (30.0%) are employees compared with females (9.5%). Contributing family workers for both sexes comprised 4.9% while apprentices accounts for 3%. Workers in the service and sales area constituted the largest occupational group (25.8%), which was closely followed by workers in skilled agriculture, forestry, and fishing occupational group (25.6%) and followed by those in craft and related trades (21.0%). On the other, only a small proportion of employed persons was in the technical and associated professionals (2.0%) and managerial categories (2.7%), with the least proportion of occupation being clerical support workers (1.4%) for persons aged 15 years and older.

Health care provision (including staff strength)

Health care in the Gomoa East District is delivered at two levels: the community and sub-district. There are a total of thirty-two (32) health facilities of all types as follows; five (5) health centres, thirteen (13) functional community-based health and planning services (CHPS) zones out of eighteen (18) demarcated and one (1) reproductive and child health (RCH) Unit. The district has no district hospital. However, there are two (2) Christian Health Association of Ghana (CHAG) Hospitals, One (1) Polyclinic, One Private Hospital, two (11) private maternity homes and one private clinic complementing health care delivery in the district.

Potsin Polyclinic

The Potsin Polyclinic is a newly established Polyclinic in the Central Region located in Gomoa Potsin on the main Accra – Cape Coast Road before Winneba. Thus, the facility was established on 17th August, 2018, as a measure of providing health service to the population

and enhancing health for all. It shares boundaries on the North with Gomoa Okyereko, South by Winneba, East by Gomoa Buduatta and West by Gomoa Adzitem. The Polyclinic is twenty-five (25) kilometers drive to Winneba roundabout. The population of Potsin is estimated to be about 8,087. The people are mainly farmers mostly on local rice, cassava and maize cultivation. Gomoa Potsin is the district capital of Gomoa East. The Polyclinic is a sub-district head with Okyereko and Gomoa Adzitem under its supervision.

The Polyclinic with its limited space now has Male, Female, Maternity Pediatrics and emergency wards with bed capacity of 17 as follows: Male ward (3), Female ward (3), Maternity (3), Emergency (OPD) (1), Pediatrics (4) and Labour room (2) and currently, an isolation ward (1) for COVID-19 patients. The Potsin Polyclinic provides the following clinical services: a 24-Hour Medicare, a 24-Hour Emergency, Medical Records/Health Information, In-patient services, Diagnostic Services-Laboratory, Ultra sound scan, Dispensary, and Psychiatry. Additionally, the following public health services are provided: Ante Natal, Delivery and Post Natal, prevention of mother to child transmission (PMTCT), Maternal / Reproductive and Child Health, Family Planning, Immunization, School health, Adolescent health, Counseling and Testing for HIV, and Disease surveillance.

The above services are provided by about hundred (100) health workers consisting of medical officers, nurses, pharmacy staff, a health service administrator, physician assistants, accounts staff, radiology staff, and laboratory staff, among others.

3.4. Study Population

A study population is the collection or aggregation of the individuals or other elements about which inferences are to be made (Lavrakas, 2008). Lavrakas (2008) argues that in statistical

usage, a population is any finite or infinite collection of individual elements. Therefore, the population used in this study included all patients both male and female attending the outpatient department of the Potosin Polyclinic during the period of data collection.

3.4.1. Inclusion Criteria

The study included participants or patients aged from 10 years and above who were able to respond to the questions in this study. For participants within the age of consent, their parents or carers answered the questionnaires on their behalf (see Hein et al., 2015). This was necessary to ensure that the sample was achieved within the time set for data collection. These include both male and female patients at the outpatient's department only. The study participants should also be people who reported at the OPD from any part of the country and had waited for about 30 minutes.

3.4.2. Exclusion Criteria

The study excluded participants or patients aged below 10 years who were unable to respond to the questions in this study. These were both male and female patients at the outpatients' department only. The study also excluded participants who did not report at the OPD from other parts of the country or foreigners from the neighboring countries.

3.5. Sampling Strategies

This study applied appropriate sampling methods to determine the sample size as well as selected the study participants as explained below.

3.5.1. Sample Size Determination

A sample size is used in any empirical study in which the aim is to make extrapolations about a population from a sample (Sarmah & Hazarika, 2012). Sarmah and Hazarika (2012) explain that if a sample is not true representative of the target population, then it may lead to unreliable conclusions. In determining the sample for the study, the researcher was informed by the Krejcie and Morgan (1970) formula for determining sample size for research activities. This was used to obtain maximum required sample size for the study. Below is the formula:

$$s = \frac{\chi^2 NP(1-P)}{d^2(N-1) + \chi^2 P(1-P)}$$

Where;

s = required sample size.

χ^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

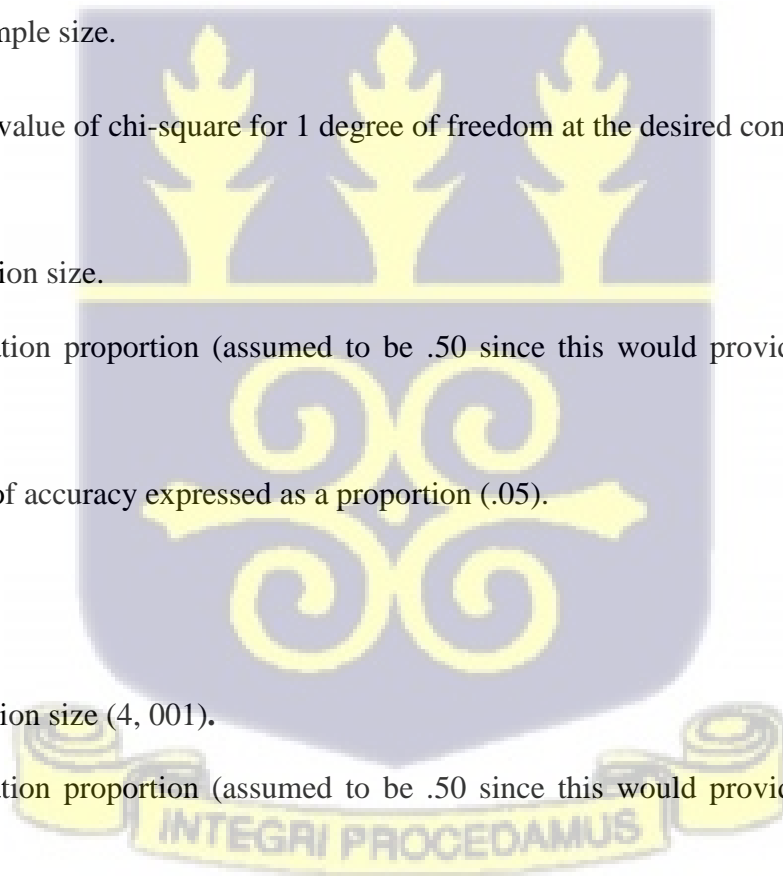
d = the degree of accuracy expressed as a proportion (.05).

Substituting.

N = the population size (4, 001).

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).



Using Table 1 of the formula proposed by some researchers (Krejcie & Morgan, 1970), a known population size of the previous year's OPD attendance of the Potsin Polyclinic of 4,001, the estimated sample size calculated for the study was 354.

3.5.2. Sampling Methods

The study applied the needed sampling method to select the research participants into this study. A sampling occurs when researchers examine a portion or sample of a larger group of potential participants and use the results to make statements that apply to this broader group or population (Salkind, 2010). A simple random sampling, is a probability method of selecting a subset, or sample, from a larger population in such a manner that every element has a chance of being selected (Frey, 2018). This study adopted the simple random sampling method to recruit patients at the OPD of the Potsin Polyclinic. A lottery method was applied where words 'yes' and 'no' were written on pieces of papers for the patients to pick. Anyone who picked a 'yes' and willing to be part of the study was included. However, those who picked a 'no' were excluded.

3.6. Study Variables

Researchers show the view that a variable is something that varies in value, as opposed to a constant, which always has the same value (Lavrakas, 2008b). Lavrakas (2008b) explained that these are observable features of something that can take on several different values or can be put into several discrete categories. The variables measured in this study were grouped into both dependent and independent as shown below.

3.6.1. Dependent variable

The dependent variable was: Patient satisfaction.

3.6.2. Independent variables

The independent variables measured were:

1. Individual (socio-demographic characteristics) factors: Age, sex, educational status, marital status, residence, religious affiliation, occupation, NHIS status.
2. Health provider factors: Competency of health providers, health provider-patient relationship, provider-patient communication, cost of health care, waiting time, health facility and infrastructure).

3.7. Data Collection – Questionnaire Design and Administration

Data for the study was collected between the months of January and February, 2022. As stated earlier, the study applied the quantitative research method, which is more related to the collection and analysis techniques used for data to produce and develop knowledge (Alharahsheh, & Pius, 2020). Alharahsheh and Pius (2020) indicate that there are two types of data collection methods to be adopted: quantitative or qualitative. However, mixed methods can also be used in some cases.

A structured questionnaire with sections covering the objectives of the study was designed to collect the needed data from patients at the Potsin Polyclinic. Section A collected data on the individual (socio-demographic characteristics) factors such as: age, sex, educational status, marital status, residence, religious affiliation, occupation, NHIS status. Section B collected data related to the health provider factors such as: competency of health providers, health provider-patient relationship, provider-patient communication, cost of health care, waiting time, health facility and infrastructure. Section C assessed the level of patients' satisfaction.

A patient satisfaction questionnaire (PSQ-18) validated by earlier researchers was adopted/adapted (Marshall, & Hays, 1994). Originally, this questionnaire was a revised form of the patient satisfaction questionnaire three (PSQ-III), which had 50 or more questions grouped into seven areas of satisfaction. Marshall and Hays (1994) developed the short form of the patient satisfaction questionnaire (PSQ-18), which was also grouped into seven areas with the variables measured.

These include general level of satisfaction (2 items); Competency of health providers / Technical Quality (4 items); Health provider-patient relationship / Interpersonal manner (2 items); Provider-patient communication (2 items); Cost of health care / financial aspect (2 items); waiting time / time spent with doctors (2 items); and Health facility and infrastructure / Accessibility and convenience (4 items). The questionnaire, which will contain both positively worded and negatively worded items were set in a framework where participants indicated how they felt about the OPD services they received in general without a reference to a specific time frame or visit. The answers were presented in a five-point Likert Scale with 1 = strongly agree to 5 = strongly disagree. Internal consistency reliability estimates for the PSQ-18 scales was calculated using Cronbach (1951) coefficient alpha at 0.70 as recommended (Nunnally, 1978). A similar strategy was applied in an earlier study (Marshall & Hays, 1994).

The questionnaires were administered by two research assistants who had some background in research methods. Both the self-administered and interviewer-administered strategies were used depending on the level of understanding of the participant. The research assistants were located at the hospital's main entrance where they were able to identify and approach patients after they had received health care. The researcher supervised and monitored the research

assistants to ensure that they administered the questionnaires correctly. The researcher participated in the data collection to ensure that the reliability of the questionnaire was achieved. Data was collected from every respondent and a series of checks were conducted daily after field work. This helped to certify that the questionnaires were completed appropriately and accurately. Each questionnaire administered took between 10 and 15 minutes. The questionnaires were translated to Fanti Twi and Asante Twi (the dominant languages in the district) for those who could not understand the English language.

3.8. Quality Assurance

The necessary procedures were applied to ensure that the data collected met the required standards. It is explained that quality control/assurance refers to the efforts and procedures that survey researchers put in place to ensure the quality and accuracy of data being collected using the methodologies chosen for a particular study (Lavrakas, 2008c). To ensure reliability and validity of the data, a well-designed questionnaire containing all the details necessary to achieve the set objectives was administered to assist in obtaining the right information from the patients. Some of these procedures have been presented below.

3.8.1. Training of research assistants

The research assistants were knowledgeable and were trained for the data collection. The research assistants were provided with a one-day training on the data collection, understanding the research objectives, and how to pose the questions to the participants. However, daily checking and monitoring was done to ensure high quality. The researcher and the supervisor conducted this one-day training prior to the pre-testing of the instruments.

3.8.2. Pre-testing

The proposed questionnaire was pre-tested at the Buduatta Health Centre in the Gomoa East District. This facility has some similarities with that of the Potsin Polyclinic. About 30 patients were recruited to respond to the questionnaires. The pre-testing of the questionnaire helped to revise wrongly worded words/phrases. It also gave the opportunity for the research assistants to be familiar with the objectives and the questions as well as the duration for administering each questionnaire.

3.8.3. Validity and Reliability

Some researchers explain that reliability is the extent to which research produces the same results when replicated (Bloor, & Wood, 2006). Bloor and Wood (2006) indicated that validity is the extent to which the research produces an accurate version of the world. Internal consistency reliability estimates for the PSQ-18 scales was calculated using Cronbach (1951) coefficient alpha as applied in an earlier study (Marshall & Hays, 1994). Some earlier researchers intimated that ‘all the PSQ-18 subscales have generally acceptable internal consistency reliability, although the coefficient of the interpersonal and communication scales fall below the 0.70 standard advocated for group level comparison’ (Nunnally, 1978; Marshall & Hays, 1994:7).

The questionnaire/tool applied was appropriate since it had been validated with the original version. For instance, the PSQ-18 short-form and PSQ-III long-form versions of corresponding subscales are substantially correlated. The pattern of correlations among short-form subscales is highly similar to the patterns among the long-form scales. Many of the PSQ-18 items were substantially correlated with multiple subscales (see Marshall & Hays, 1994:7).

3.8.4. Data processing

The returned questionnaires were cleaned to ensure that there were no double answering to any of the questions. That is, raw data was entered into Microsoft Excel spreadsheet and run preliminary frequencies to identify entry errors. The inaccuracies in the data entry process were corrected before the calculations were performed. The data was imported into Stata statistical software version 16 for analysis (StataCorp, 2019; Ho, Huynh, Jacho-Chávez, & Rojas-Baez, 2021). Internal consistency reliability estimates for the PSQ-18 scales was calculated using Cronbach (1951) coefficient alpha. A similar strategy was applied in an earlier study (Marshall & Hays, 1994).

3.8.5. Data analysis

Descriptive statistics method was used to run the socio-demographic characteristics using frequencies and percentages. The results are presented in tables and graphs. For the level of patient satisfaction as the dependent variable, the responses were scored using a mean scale for the six items. Both chi square test and logistic regression analysis were applied to establish appropriate relationships between the dependent and independent variables. A p-value of $p < 0.05$ at 95% confidence interval was considered as statistically significant. To determine the level of patient satisfaction, a scale of 1 to 5 was used where 1 meant least satisfied and 5 meant most satisfied. This means that the interpretation of overall level of patients' satisfaction with the OPD care was done using mean scores where 1 = least satisfied, 2 = less satisfied, 3 = neutral, 4 = more satisfied and 5 = most satisfied.

The level of health provider factors was coded from 1 to 5 where 1 was strongly disagree and 5 was strongly agree with the facility factors at the Potsin Polyclinic. This means that the interpretation of patient satisfaction with the health provider factors related to OPD care was

done using five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree and 5 = strongly agree. Overall level of satisfaction was derived by computing a composite score of the different domains of satisfaction and converting this to the percentage scale where 0 is worst and 100% is best.

To establish the association between individual factors and level of patient satisfaction, the unadjusted regression, which is the bivariate relationship between an independent and dependent variable that does not control for covariates/cofounders was applied (Voils, Crandell, Chang, Leeman, & Sandelowski, 2011). Subsequently, the adjusted regression, which is when a regression reports an unadjusted estimate, it is just a regression of X on Y with no other covariates was applied as an adjusted estimate is the same regression of X on Y in the presence of at least one covariate (Voils et al., 2011).

To measure the correlation between the health provider factors and overall level of patient satisfaction, the Spearman's rank correlation coefficient model was applied. Spearman's rank correlation measures the strength and direction of association between two ranked variables, which basically gives the measure of monotonicity of the relation between two variables, that is, how well the relationship between two variables could be represented using a monotonic function (Gupta, 2021). Results that were close to 1 were termed as strong or perfect correlation while close to 0 were termed as weak correlation.

3.9. Ethical considerations

The needed ethical issues relating to studies involving human subjects were applied as explained below.

Ethical clearance

Ethical clearance for the conduct of the study was granted by the Local Ethics Review Committee of the Ministry of Health / Ghana Health Service with a reference GHS-ERC: 044/10/21 (see appendix C).

Permission from the study site

Approval to use the Potsin Polyclinic for the study was sought from the Central Regional Health Directorate, the Gomoa East District Health Directorate and the management of Potsin Polyclinic before data collection. An introductory letter from the School of Public Health, College of Health Sciences, University of Ghana, Legon, was sent to authorities of the hospital to guarantee that the research was for academic purposes only.

Description of study subjects

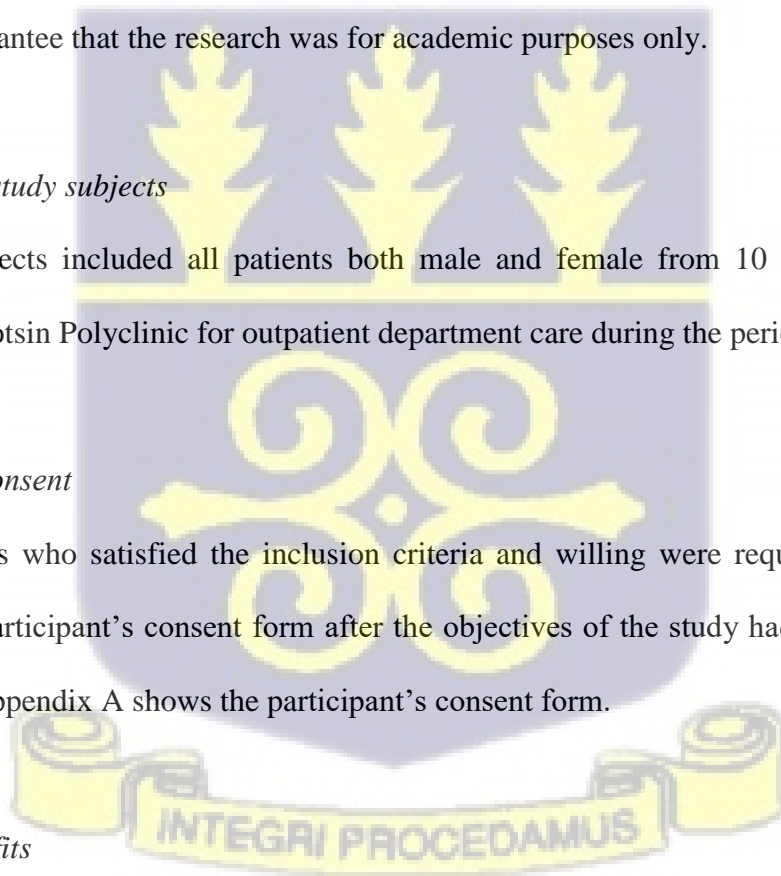
The study subjects included all patients both male and female from 10 years and above attending the Potsin Polyclinic for outpatient department care during the period of the study.

Participants' consent

The participants who satisfied the inclusion criteria and willing were requested to sign or thumbprint a participant's consent form after the objectives of the study had been explained to them. The appendix A shows the participant's consent form.

Risks and Benefits

The study did not pose any harm to the participants. However, the results of the study would help strengthen the public health education and improve policy planning in Ghana's health



sector. The respondents' involvement in this study was only to respond to the questionnaires. Hence, it did not expose them to any form of risks.

Confidentiality and anonymity

The study ensured that no identifying details of the participants were revealed. Codes were used to identify them on the questionnaires. Since the report was a composite one per the analysis, it ensured that their identities were protected.

Voluntary withdrawal

Participation in the study was solely voluntary and participants freely opted without any penalty or denied access to health care. Participants were informed about their freedom to withdraw at any time during the conduct of the study.

Compensation

There were neither financial benefits nor other materialistic benefits to participants. However, a word of appreciation was extended to each one of them for their precious time spent in responding to the questionnaire.

COVID-19 Protocols

All the necessary COVID-19 protocols were adhered to during the conduct of the study. The researcher and the two research assistants adhered strictly to the COVID-19 protocol by wearing a nose mask and avoiding close contact with the participants. The researcher provided hand sanitizers as the Potsin Polyclinic had already provided Veronica buckets and liquid soap at vantage points.

Data storage and usage

All data obtained with the hard copy of the questionnaire would be destroyed by incineration after a period of one year. Soft copies of data generated are stored onto a computer protected with a password whilst hard copies are saved in a file cabinet under lock and key. Access to the stored data will only be granted to the researcher and the supervisor. On the other hand, the soft copies would be deleted with no traces on the personal computer and external drive of the researcher after a period of five years.

Protocol amendments

In the event where there was any change in the study site, title or any significant issue related to the study, this was communicated to the Ethics Review Committee by filling the appropriate form.

Results dissemination

The outcome of the study is presented to the School of Public Health, College of Health Sciences, University of Ghana, Legon for the intended academic purposes. In addition, copies of the dissertation will be presented to the management of the Patsin Polyclinic for lessons to be learned and challenges addressed. The management could organise a staff durbar or workshop to discuss the findings with them. Moreover, there will be manuscripts prepared for publication in renowned peer reviewed journals for worldwide dissemination of knowledge as well.

Conflict of interest

Even though the researcher was a staff of the study site, this did not in any way create a situation for conflict of interest whatsoever related to the study. The study was solely for

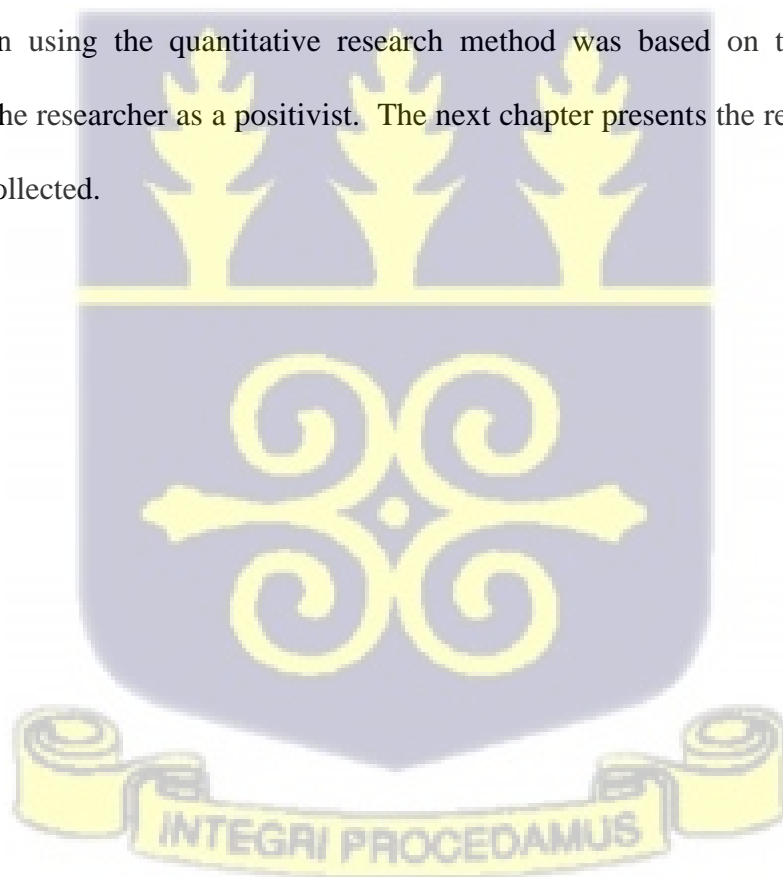
academic work and responses to the questionnaires would be for the intended, mentioned goal only.

Funding

The study was self-financed. The researcher footed all the expenses related to the conduct of the study without support from any third party.

3.10. Chapter Summary

This chapter has presented the methods applied to collect data for analysis to address the objectives of this intended study. The chapter has argued that the choice of the cross-sectional design using the quantitative research method was based on the philosophical assumption of the researcher as a positivist. The next chapter presents the results as analysed from the data collected.



CHAPTER FOUR

RESULTS

4.0. Introduction

This chapter presents results of the analysis of the data collected and analysed using STATA version 16.0. The results are presented in sections related to the specific objectives of the study. Section one presents socio-demographic characteristics of respondents. Section two presents level of patients' satisfaction. Section three presents chi square analysis of the association between individual (patients' socio-demographic characteristics) related factors and satisfaction. Section four presents association between health provider factors and patient satisfaction. The chapter ends with a summary of the main ideas and an indication of what is contained in the subsequent chapter.

4.1. Socio-demographic characteristics of respondents

In all, a total of 354 patients responded to the questionnaires giving a response rate of 100% (354/354). Out of the total number of respondents, the sex showed that 152 (42.9%) were male and 202 (57.1%) were females. The age of the respondents also indicated that the highest number, 157 (44.4%) were in the age range of 10-20 years and the least number of respondents, 8 (2.3%) were in the age range of 60-70 years. In terms of duration of care accessed at the Potsin Polyclinic, the results revealed that the highest, 310 (87.6%) had been attending the hospital for less than 10 years and the least number 4 (1.1%) had been accessing the hospital for the past 41-50 years. Regarding their educational attainment, the results showed that the highest, 168 (47.5%) had attained secondary school education and the least number 5 (1.4%) were 'others' who had educational qualifications, including vocational training certificates.

On the issue of their marital status, the highest number, 190 (53.7%) were single and the least number 16 (4.5%) were co-habiting. With regards to the occupational level of the respondents, the results indicated that the highest number 174 (49.2%) were students followed by 47 (13.3%) who were farmer/fish farmers, 66 (18.6) who were teacher/lecturers, 14 (4.0%) were public servants, 34 (9.6%) were civil servants, and 19 (5.4) were traders/artisans/drivers. The results revealed that 279 (78%) out of the 354 respondents were insured with the National Health Insurance Scheme (NHIS) whilst the remaining 75 (21.2%) were uninsured. The results of the socio-demographic characteristics are displayed in table 4.1.

4.1: Socio-demographic characteristics of respondents

| Variable | Frequency | Percentage(%) |
|---------------------------------|------------------|----------------------|
| Sex | | |
| Male | 152 | 42.9 |
| Female | 202 | 57.1 |
| Age (years) | | |
| 10-20 | 157 | 44.4 |
| 21-30 | 103 | 29.1 |
| 31-40 | 55 | 15.5 |
| 41-50 | 17 | 4.8 |
| 51-60 | 14 | 4.0 |
| 60-70 | 8 | 2.3 |
| Duration of Care (years) | | |
| <10 | 310 | 87.6 |
| 11-20 | 29 | 8.2 |
| 21-30 | 6 | 1.7 |
| 31-40 | 5 | 1.4 |
| 41-50 | 4 | 1.1 |
| Education | | |
| No formal education | 40 | 11.3 |
| Basic | 91 | 25.7 |
| Secondary | 168 | 47.5 |
| Tertiary | 50 | 14.1 |
| Others | 5 | 1.4 |
| Marital Status | | |
| Married | 128 | 36.1 |
| Single | 190 | 53.7 |
| Widow | 20 | 5.65 |
| Co-habiting | 16 | 4.5 |

Occupation

| | | |
|-----------------------|-----|------|
| Student | 174 | 49.2 |
| Farmer/fish farmer | 47 | 13.3 |
| Teacher/Lecturer | 66 | 18.6 |
| Public servant | 14 | 4.0 |
| Civil servant | 34 | 9.6 |
| Trader/artisan/driver | 19 | 5.4 |
| Insurance | | |
| Insured | 279 | 78.8 |
| Non-insured | 75 | 21.2 |

4.2. Overall level of patients’ satisfaction with OPD care

The level of patient satisfaction with the OPD care at Potsin Polyclinic was assessed using mean scores for some classified satisfaction variables such as medical care, technical quality, interpersonal manner, communication, financial aspect, time spent with the doctor, and accessibility and convenience. It would be recalled from the analysis section of chapter three that a scale of 1 to 5 was used where 1 meant least satisfied and 5 meant most satisfied. This means that the interpretation of overall level of patients’ satisfaction with the OPD care was done using mean scores where 1 = least satisfied, 2 = less satisfied, 3 = neutral, 4 = more satisfied and 5 = most satisfied.

Medical care

Generally, responding to the questions on whether the medical care they received was just about perfect, the results indicated that respondents were more satisfied with medical care with a mean score (M=4.36, SD=0.83) whilst they were less satisfied with some things about the medical care they received (M=2.92, SD=1.45) at the Potsin Polyclinic.

Technical quality aspect

With respect to the clients’ satisfaction with the technical quality aspect of the hospital, the results revealed that patients were more satisfied with the fact that the doctor’s office had

everything needed to provide complete medical care ($M=4.03$, $SD=1.09$). However, they were neutral with how sometimes doctors make them wonder if their diagnosis was correct ($M=3.27$, $SD=1.40$). In addition, they were least satisfied when they go for medical care and the doctors were careful to check everything when treating and examining them ($M=1.88$, $SD=1.13$), and they were also neutral with some doubt about the ability of the doctors who treated them ($M=3.36$, $SD=1.43$).

Interpersonal manner

The interpersonal manner was measured as one of the indicators for level of satisfaction with the OPD care at the Potsin Polyclinic. The results showed that patients/clients were neutral with how doctors act too business-like and impersonal towards them ($M=3.64$, $SD=1.39$). However, they were more satisfied with how their doctors treated them in a very friendly and courteous manner ($M=4.16$, $SD=1.08$).

Communication

Measuring the level of satisfaction using communication with the doctor/health providers showed that respondents were more satisfied with how doctors were good about explaining the reason for medical test ($M=4.06$, $SD=1.13$), while they were neutral with how doctors sometimes ignore what they told them (doctors) with a score ($M=3.59$, $SD=1.42$).

Financial aspect

Assessment of the financial aspect as a variable of level of satisfaction portrayed that the respondents were neutral with how they felt confident that they could get the medical care they needed without being setback financially ($M=3.77$, $SD=1.25$), and still neutral with how they had to pay for more of their medical care than they could afford ($M=3.24$, $SD=1.39$).

Time spent with the doctor

Using the variable time spent with the doctor to assess patients' level of satisfaction, the results revealed that respondents were neutral with how those who provide them medical care sometimes hurry too much when they treat them ($M=3.49$, $SD=1.39$), and also neutral with how doctors usually spend plenty of time with them ($M=3.03$, $SD=1.39$).

Accessibility and convenience

When respondents were asked about the level of satisfaction in relation to accessibility and convenience of medical care, the respondents showed that they were neutral with how they had easy access to medical specialist they needed ($M=3.84$, $SD=1.28$), neutral with where they got medical care and people had to wait too long for emergency treatment ($M=3.46$, $SD=1.39$), and were neutral with how they found it hard to get an appointment for medical care right away ($M=3.61$, $SD=1.33$). Nonetheless, the respondents were more satisfied with how they were able to get medical care whenever they needed it ($M=4.12$, $SD=1.17$).

The overall level of satisfaction was ($M=63.8$, $SD=11.15$). This means that 64% of the respondents were satisfied with the overall provision of OPD care at the Potsin Polyclinic. The result of the level of patients' satisfaction with OPD care are shown in table 4.2.

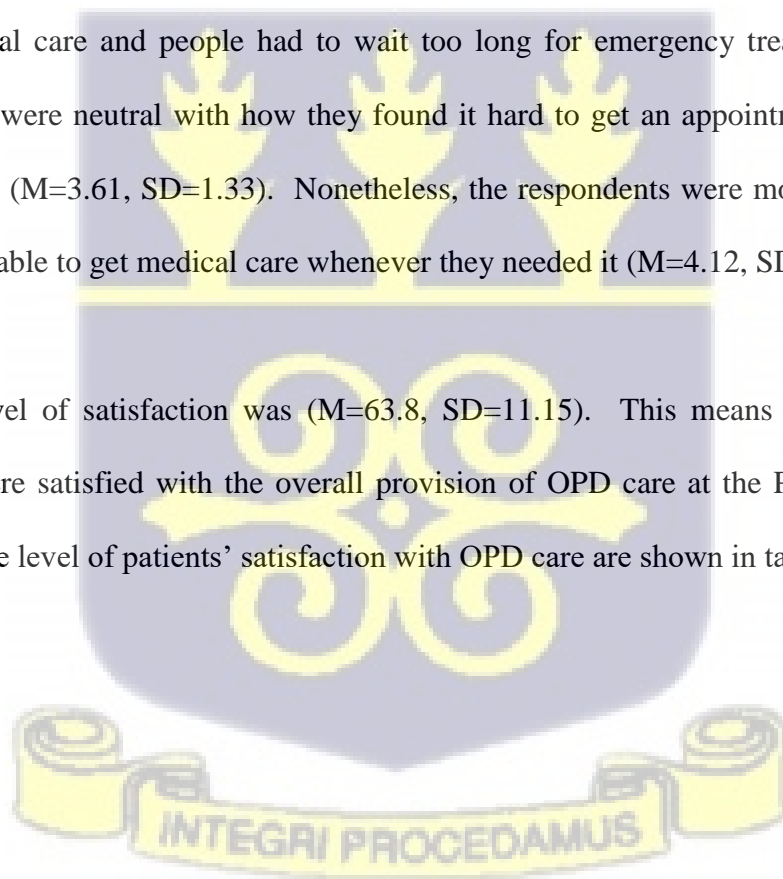


Table 4.2: Overall level of patient satisfaction with OPD care

| Variable | Level of Satisfaction | |
|---|-----------------------|------|
| | Mean | SD |
| General Satisfaction | | |
| The medical care I have been receiving is just about perfect | 4.36 | 0.83 |
| I am dissatisfied with some things about the medical care I receive | 2.92 | 1.45 |
| Technical Quality | | |
| I think my doctor's office has everything needed to provide complete medical care | 4.03 | 1.09 |
| Sometimes doctors make me wonder if their diagnosis is correct | 3.27 | 1.40 |
| When I go for medical care, they are careful to check everything when treating and examining me | 1.88 | 1.13 |
| I have some doubt about the ability of the doctors who treat me | 3.46 | 1.43 |
| Interpersonal Manner | | |
| Doctors act too business-like and impersonal towards me | 3.64 | 1.39 |
| My doctors treat me in a very friendly and courteous manner | 4.16 | 1.08 |
| Communication | | |
| Doctors are good about explaining the reason for medical test | 4.06 | 1.13 |
| Doctors sometimes ignore what I tell them | 3.59 | 1.42 |
| Financial Aspect | | |
| I feel confident that I can get the medical care I need without being setback financially | 3.77 | 1.25 |
| I have to pay for more of my medical care than I can afford | 3.24 | 1.38 |
| Time spent with doctor | | |
| Those who provide me medical care sometimes hurry too much when they treat me | 3.49 | 1.39 |
| Doctors usually spend plenty of time with me | 3.03 | 1.39 |
| Accessibility and Convenience | | |
| I have easy access to medical specialist I need | 3.84 | 1.28 |
| Where I get medical care, people have to wait too long for emergency treatment | 3.46 | 1.39 |
| I find it hard to get an appointment for medical care right away | 3.61 | 1.33 |
| I am able to get medical care whenever I need it | 4.12 | 1.17 |
| Overall level of satisfaction | 63.8 | 11.5 |

NB: 1 = least satisfied, 2 = less satisfied, 3 = neutral, 4 = more satisfied and 5 = most satisfied.

4.3. Health Provider Factors and Patients' Satisfaction with OPD Care

This section presents the descriptive results of the analysis performed on the objective related to health provider factors and patient level of satisfaction with OPD care. The classified satisfaction variables used were medical care, technical quality, interpersonal manner, communication, financial aspect, time spent with the doctor, and accessibility and convenience. As indicated in the analysis section in the chapter three, the responses were coded from 1 to 5 where 1 was strongly disagree and 5 was strongly agree with the facility factors at the Potsin Polyclinic. This means that the interpretation of patients' satisfaction with the health provider factors related to OPD care was done using five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree and 5 = strongly agree.

Medical care

The responses recorded for the variable on medical care showed that out of the 354 respondents, 182 (51.4%) strongly agreed with the statement that 'the medical care I have been receiving is just about perfect' while 6 (1.7%) strongly disagreed to this statement. On the other hand, 95 (26.8%) noted that they agreed and 41 (11.6%) were uncertain with regard to the statement that 'I am dissatisfied with some things about the medical care I receive' at the outpatient department of the health facility.

Technical quality

The results of the technical quality showed that 161 (45.5%) indicating strongly agreed, 9 (2.5%) indicating strongly disagreed to the statement that 'I think my doctors' office has everything needed to provide complete medical care'. On the same measurement, the highest number of responses, 93 (26.6%) showed strongly disagreed, and the least number of responses, 47 (13.3%) showed strongly agreed to the statement that 'sometimes doctors make

me wonder if their diagnosis is correct'. Additionally, 181 (51.1%) strongly agreed and the least 16 (4.5%) strongly disagreed to the statement that 'when I go for medical care, they are careful to check for everything when treating and examining me'. In addition, the highest responses, 115 (32.5%) indicated strongly disagreed and the least number, 43 (12.2%) showed uncertain to the statement that 'I have some doubt about the ability of doctors who treat me'.

Interpersonal manner

Using the interpersonal manner of health providers to establish patient satisfaction with OPD care, the results revealed that the highest number, 134 (37.9%) informed that they strongly disagreed while the least number, 41 (11.6%) showed that they strongly agreed to the statement that 'doctors act too businesslike and impersonal towards me'. Furthermore, the highest number of responses, 179 (50.6%) indicated that they strongly agreed whilst the least number, 14 (3.7%) showed that they strongly disagreed to the statement that 'my doctors treat me in a very friendly and courteous manner'.

Communication

The variable communication between the doctors/health providers and patients was used to measure satisfaction with OPD care. The results detailed that the highest number, 166 (46.9%) noted that they strongly agreed while the least number, 14 (4.0%) also noted strongly disagreed to the statement that 'doctors are good about explaining the reasons for medical tests'. In addition, the highest number, 129 (36.4%) showed that they strongly disagreed and the least number, 37 (10.5%) informed that they were uncertain about the statement that 'doctors sometimes ignore what I tell them'.

Financial aspect

The study assessed how respondents were satisfied with the financial aspect regarding the care they received at the Potsin Polyclinics. The results showed that the highest responses, 125 (35.3%) indicated that they strongly agreed to the statement that ‘I feel confident that I can get the medical care I need without being setback financially’. However, the least responses, 27 (7.6%) showed that they strongly disagreed to the same statement. On the issue of affordability, the results revealed that the highest number, 88 (24.9%) strongly disagreed to the statement that ‘I have to pay for more of my medical care than I can afford’. On the other hand, the least number of responses, 49 (13.8%) showed strongly agreed to this same statement.

Time spent with the doctor

The study also assessed how respondents were satisfied with the time spent with the doctor at the Potsin Polyclinic. The results indicated that the highest number of responses, 109 (30.8%) who strongly disagreed to the statement that ‘Those who provide me medical care sometimes hurry too much when they treat me’. Nevertheless, the least number of responses, 45 (12.7%) were those who strongly agreed to this same statement. Additionally, the highest number of responses, 94 (26.6%) indicated that they agreed to the statement that ‘Doctors usually spend plenty of time with me’. Contrarily, the least number of responses, 16 (17.0%) strongly agreed to this statement.

Accessibility and convenience

The study assessed how respondents were satisfied with accessibility and convenience in accessing OPD care at the Potsin Polyclinic. The results proved that the highest number of responses, 152 (43.0%) indicated that they strongly agreed to the statement that ‘I have easy

access to medical specialist I need' while the least number of responses, 21 (5.9%) revealed that they strongly disagreed to the statement. Furthermore, the highest number of responses, 109 (30.8%) noted that they strongly disagreed to the statement that 'Where I get medical care, people have to wait too long for emergency treatment' whereas the least number of responses, 42 (11.9%) showed that they strongly agreed to this statement. In addition, the highest number of responses, 123 (34.8%) observed that they strongly disagreed to the statement that 'I find it hard to get appointment for medical care right away' whilst the least number of responses, 29 (8.2%) stated that they strongly agreed to the same statement. Moreover, while the highest number of responses, 174 (49.2%) showed that they strongly agreed to the statement that 'I am able to get medical care whenever I need it', the least number of responses, 22 (6.2%) noted that they disagreed to this statement. The results of the descriptive statistics of the measurement of health provider factors and patient satisfaction with OPD care at the Potsin Polyclinic are displayed in table 4.3.

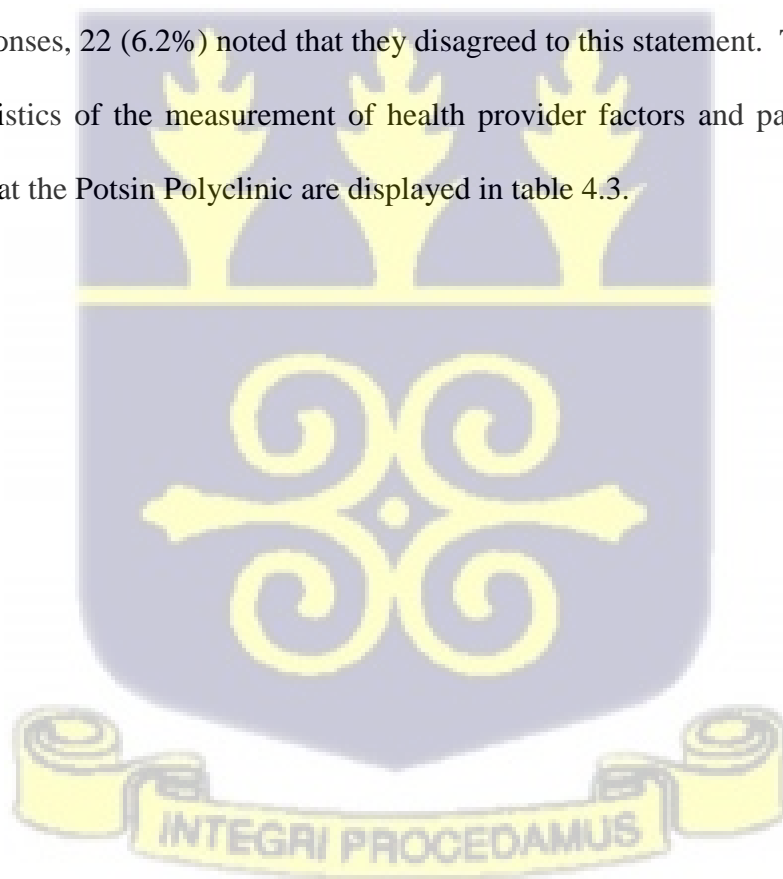


Table 4.3: Health Provider Factors and Patient Satisfaction with OPD Care

| Statements on Patient Satisfaction | Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree |
|---|-------------------|-----------|-----------|------------|----------------|
| General satisfaction | Freq (%) | Freq (%) | Freq (%) | Freq (%) | Freq (%) |
| The medical care I have been receiving is just about perfect | 6 (1.7) | 9 (2.5) | 19 (5.4) | 138 (39.0) | 182 (51.4) |
| I am dissatisfied with some things about the medical care I receive | 70 (19.8) | 74 (20.9) | 41 (11.6) | 95 (26.8) | 74 (20.9) |
| Technical Quality | | | | | |
| I think my doctor's office has everything needed to provide complete medical care | 9 (2.5) | 29 (8.2) | 64 (18.1) | 91 (25.7) | 161 (45.5) |
| Sometimes doctors make me wonder if their diagnosis is correct | 93 (26.3) | 79 (22.3) | 60 (17.0) | 75 (21.2) | 47 (13.3) |
| When I go for medical care, they are careful to check everything when treating and examining me | 16 (4.5) | 23 (6.5) | 43 (12.2) | 91 (25.7) | 181 (51.1) |
| I have some doubt about the ability of the doctors who treat me | 115 (32.5) | 87 (24.6) | 43 (12.2) | 63 (17.8) | 46 (13.0) |
| Interpersonal Manner | | | | | |
| Doctors act too business-like and impersonal towards me | 134 (37.9) | 82 (23.2) | 54 (15.3) | 43 (12.2) | 41 (11.6) |
| My doctors treat me in a very friendly and courteous manner | 14 (3.7) | 20 (5.7) | 44 (12.4) | 98 (27.7) | 179 (50.6) |
| Communication | | | | | |
| Doctors are good about explaining the reason for medical test | 14 (4.0) | 30 (8.5) | 41 (11.6) | 103 (29.1) | 166 (46.9) |
| Doctors sometimes ignore what I tell them | 129 (36.4) | 92 (26.0) | 37 (10.5) | 51 (14.4) | 45 (12.7) |
| Financial Aspect | | | | | |
| I feel confident that I can get the medical care I need without being setback financially | 27 (7.6) | 38 (10.7) | 48 (13.6) | 116 (32.8) | 125 (35.3) |
| I have to pay for more of my medical care than I can afford | 88 (24.9) | 78 (22.0) | 68 (19.2) | 71 (20.1) | 49 (13.8) |
| Time spent with doctor | | | | | |
| Those who provide me medical care sometimes hurry too much when they treat me | 109 (30.8) | 99 (28.0) | 46 (13.0) | 55 (15.5) | 45 (12.7) |
| Doctors usually spend plenty of time with me | 71 (20.1) | 63 (17.8) | 66 (18.6) | 94 (26.6) | 60 (17.0) |
| Accessibility and Convenience | | | | | |

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| | | | | | |
|--|------------|-----------|-----------|------------|------------|
| I have easy access to medical specialist I need | 21 (5.9) | 50 (14.1) | 44 (12.4) | 87 (24.6) | 152 (43.0) |
| Where I get medical care, people have to wait too long for emergency treatment | 109 (30.8) | 92 (26.0) | 48 (13.6) | 63 (17.8) | 42 (11.9) |
| I find it hard to get an appointment for medical care right away | 123 (34.8) | 89 (25.1) | 51 (14.4) | 62 (17.5) | 29 (8.2) |
| I am able to get medical care whenever I need it | 23 (6.5) | 22 (6.2) | 19 (5.4) | 116 (32.8) | 174 (49.2) |

Note: 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree and 5 = strongly agree.



4.4. Overall level of satisfaction among the socio-demographic characteristics (% scale)

This section presents results of differences in levels of overall satisfaction among the socio-demographic characteristics measured on a percentage scale (% scale). The results revealed that there was high level of satisfaction among females (64.2%) compared to males (63.2%) showing a marginal difference compared to those in the age range 10-20 years (59.8%). Furthermore, the results showed that respondents who had accessed health care in a duration of less than 10 years (64.3%) were highly satisfied than those who had accessed health care beyond a duration of 10 years. In terms of education, the level of satisfaction was higher among respondents in the 'others' educational qualification group (80.3%) as compared to those with no formal education (60.1%).

With the marital status, respondents who were married (66.0%) reported higher level of satisfaction as compared to those who were co-habiting (61.8%). The occupation level showed that traders/artisans/drivers reported higher level of satisfaction (75.4%) compared with students (60.7%). Moreover, respondents who were insured (63.9%) and non-insured (63.4%) had almost the same level of satisfaction with the insured reporting marginally higher satisfaction compared to the non-insured.

The results of the association between socio-demographic characteristics and overall level of satisfaction are detailed in Table 4.4.

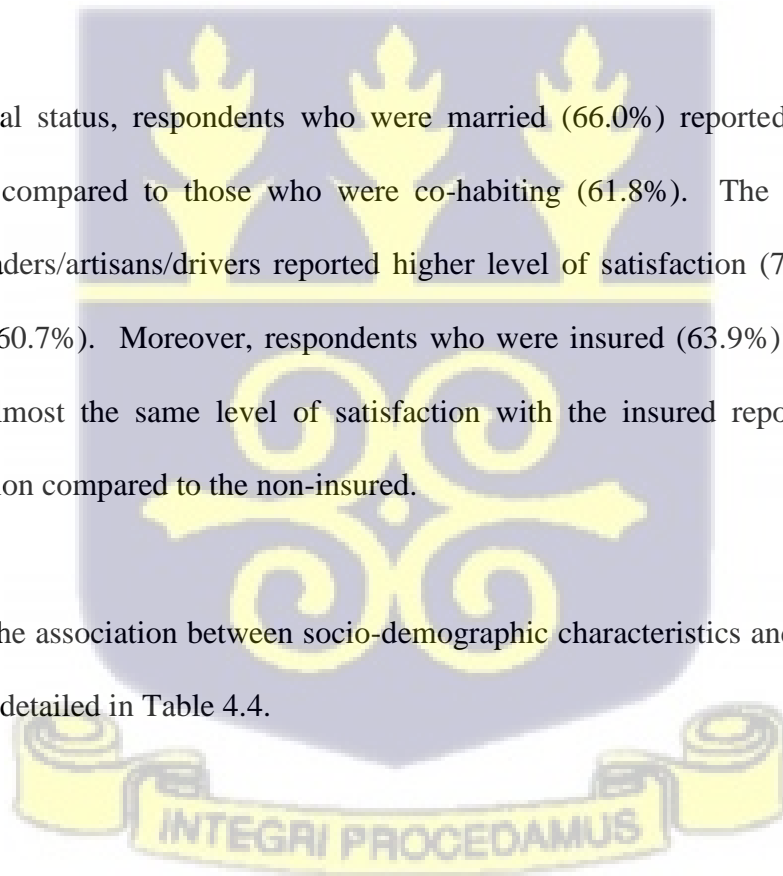
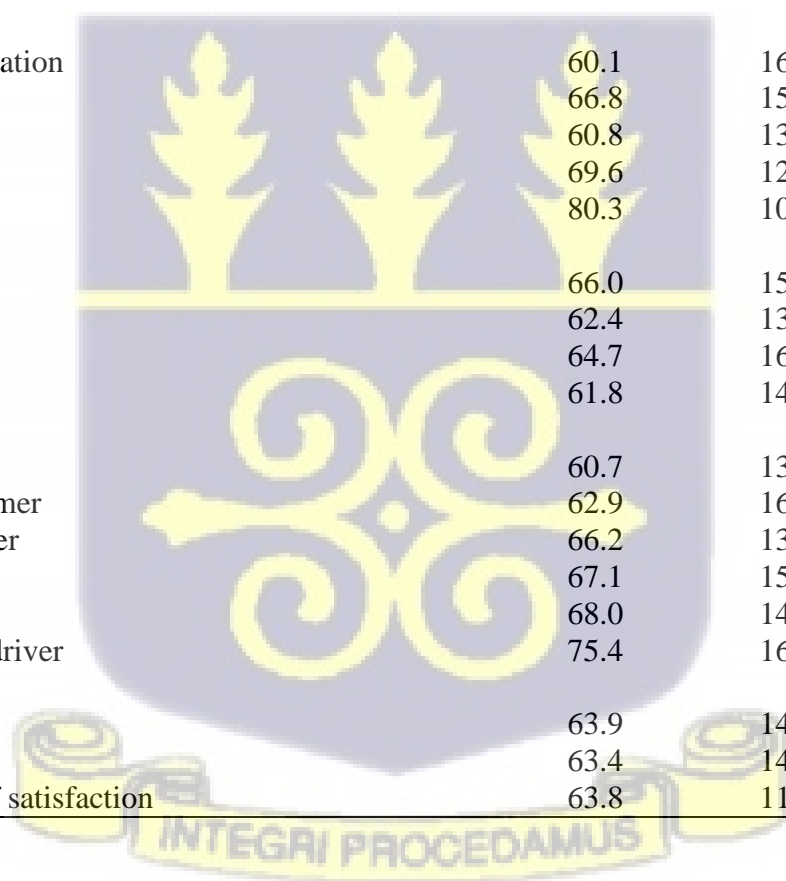


Table 4.4: Association between socio-demographic characteristics and overall level of satisfaction (% scale)

| Variable | Mean | SD |
|---------------------------------|------|------|
| Sex | | |
| Male | 63.2 | 14.7 |
| Female | 64.2 | 14.4 |
| Age (years) | | |
| 10-20 | 59.8 | 13.1 |
| 21-30 | 66.7 | 14.1 |
| 31-40 | 69.0 | 16.1 |
| 41-50 | 64.8 | 13.4 |
| 51-60 | 66.5 | 16.3 |
| 60-70 | 62.0 | 18.2 |
| Duration of Care (years) | | |
| <10 | 64.3 | 14.5 |
| 11-20 | 61.3 | 15.5 |
| 21-30 | 59.0 | 13.6 |
| 31-40 | 54.4 | 11.3 |
| 41-50 | 59.7 | 13.1 |
| Education | | |
| No formal education | 60.1 | 16.1 |
| Basic | 66.8 | 15.2 |
| Secondary | 60.8 | 13.2 |
| Tertiary | 69.6 | 12.9 |
| Others | 80.3 | 10.7 |
| Marital Status | | |
| Married | 66.0 | 15.0 |
| Single | 62.4 | 13.9 |
| Widow | 64.7 | 16.2 |
| Co-habiting | 61.8 | 14.9 |
| Occupation | | |
| Student | 60.7 | 13.1 |
| Farmer/fish farmer | 62.9 | 16.3 |
| Teacher/Lecturer | 66.2 | 13.9 |
| Public servant | 67.1 | 15.1 |
| Civil servant | 68.0 | 14.6 |
| Trader/artisan/driver | 75.4 | 16.3 |
| Insurance | | |
| Insured | 63.9 | 14.5 |
| Non-insured | 63.4 | 14.7 |
| Overall level of satisfaction | 63.8 | 11.5 |



4.5. Unadjusted linear regression: Association between socio-demographic characteristics and overall level of satisfaction

The unadjusted linear regression model was applied to establish the strength of association between the socio-demographic characteristics and overall level of satisfaction. It would be recalled that the unadjusted regression is the bivariate relationship between an independent and dependent variable that does not control for covariates/cofounders (Voils, Crandell, Chang, Leeman, & Sandelowski, 2011).

The results showed that the independent variables, which were significantly associated with overall level of patient satisfaction were age, education, marital status and occupation ($p < 0.05$). However, sex, duration of care, and insurance status were not significantly associated with overall level of patient satisfaction ($p > 0.05$).

In respect of age, respondents in the range of 21-30 years were 6.89 likely to report higher level of satisfaction (95%CI: 3.33,10.38, $p = 0.001$) and those in the range of 31-40 were 9.15 likely to report higher level of satisfaction (95%CI: 4.79,13.51, $p = 0.001$) compared to respondents in the range of 10-20 years. Thus, there was a significant association between age and overall level of satisfaction with OPD care ($p < 0.05$).

Regarding the educational level of respondents, the results indicated that those with basic education were 6.65 likely to report higher level of satisfaction (95%CI: 1.42,11.88, $p = 0.013$), those with tertiary level of education were 9.47 likely to report higher level of satisfaction (95%CI: 3.62, 15.33, $p = 0.002$) and those with 'others' level of education were 20.14 likely to report higher level of satisfaction (95%CI: 7.05, 33.23, $p = 0.003$) compared to

those with no formal education. Hence, there was a significant association between educational level and overall level of satisfaction with OPD care ($p < 0.05$).

Marital status was indirectly related to overall level of patient satisfaction. Respondents who were single were 3.51 likely to report lower level of satisfaction with OPD care (95%CI: -6.77, 24, $p = 0.035$) compared to those who were married. Consequently, there was a significant association between marital status and overall level of satisfaction with OPD care ($p < 0.05$).

In terms of occupation, respondents who were teachers/lecturers were 5.50 likely to report higher level of satisfaction (95%CI: 1.45,9.51, $p = 0.007$), civil servants were 7.23 likely to report higher level of satisfaction (95% CI: 2.03,12.47, $p = 0.007$), and traders/artisans/drivers were 14.62 likely to report higher level of satisfaction (95%CI: 7.92,21.33, $p = 0.001$) compared to those who were students. Therefore, there was a significant association between occupation and overall level of satisfaction with OPD care ($p < 0.05$).

The results of the unadjusted linear regression analysis of the association between socio-demographic characteristics and overall level of satisfaction are displayed in Table 4.5.

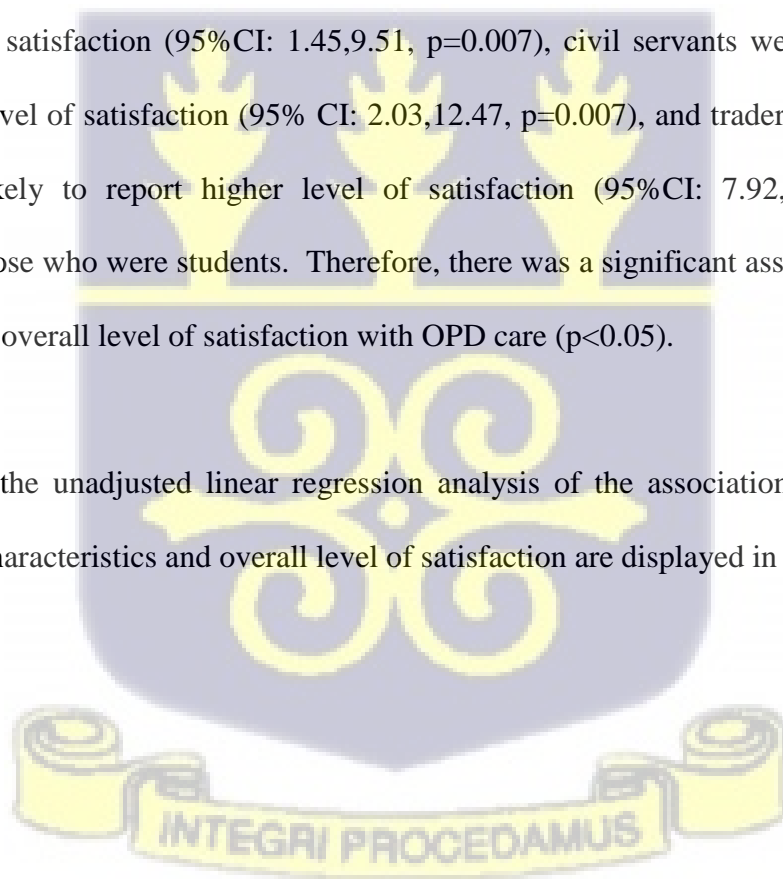
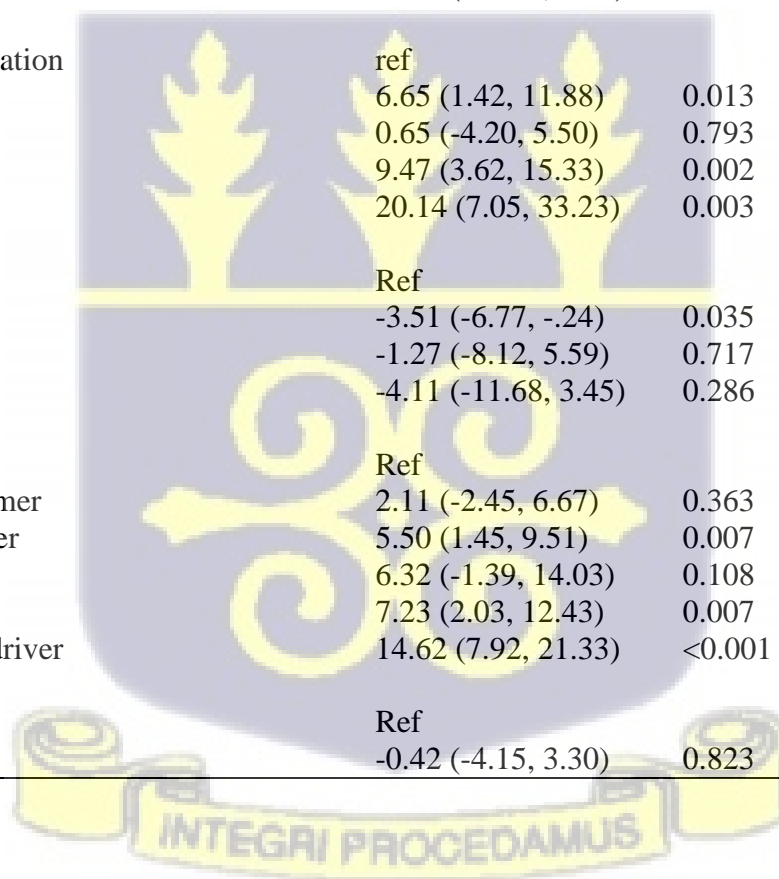


Table 4.5: Unadjusted linear regression: Association between socio-demographic characteristics and overall level of satisfaction

| | β (95% CI) | P-value |
|---------------------------------|----------------------|---------|
| Sex | | |
| Male | Ref | |
| Female | 0.93 (-2.14, 4.00) | 0.553 |
| Age (years) | | |
| 10-20 | Ref | |
| 21-30 | 6.89 (3.33, 10.38) | <0.001 |
| 31-40 | 9.15 (4.79, 13.51) | <0.001 |
| 41-50 | 4.98 (-2.13, 12.08) | 0.169 |
| 51-60 | 6.66 (-1, 10, 14.42) | 0.092 |
| 60-70 | 2.17 (-7, 92, 12.25) | 0.673 |
| Duration of Care (years) | | |
| <10 | Ref | |
| 11-20 | -2.64 (-819, 2.92) | 0.351 |
| 21-30 | -5.25 (-17.03, 6.54) | 0.382 |
| 31-40 | -9.83 (22.72, 3.06) | 0.135 |
| 41-50 | -4.55 (-18.94, 9.84) | 0.534 |
| Education | | |
| No formal education | ref | |
| Basic | 6.65 (1.42, 11.88) | 0.013 |
| Secondary | 0.65 (-4.20, 5.50) | 0.793 |
| Tertiary | 9.47 (3.62, 15.33) | 0.002 |
| Others | 20.14 (7.05, 33.23) | 0.003 |
| Marital Status | | |
| Married | Ref | |
| Single | -3.51 (-6.77, -.24) | 0.035 |
| Widow | -1.27 (-8.12, 5.59) | 0.717 |
| Co-habiting | -4.11 (-11.68, 3.45) | 0.286 |
| Occupation | | |
| Student | Ref | |
| Farmer/fish farmer | 2.11 (-2.45, 6.67) | 0.363 |
| Teacher/Lecturer | 5.50 (1.45, 9.51) | 0.007 |
| Public servant | 6.32 (-1.39, 14.03) | 0.108 |
| Civil servant | 7.23 (2.03, 12.43) | 0.007 |
| Trader/artisan/driver | 14.62 (7.92, 21.33) | <0.001 |
| Insurance | | |
| Insured | Ref | |
| Non-insured | -0.42 (-4.15, 3.30) | 0.823 |



4.6. Multiple linear regression analysis: Association between socio-demographic characteristics and overall level of patient satisfaction

The unadjusted linear regression model was applied to establish the strength of association between the socio-demographic characteristics and overall level of satisfaction. It would be recalled that the adjusted regression is when a regression reports an unadjusted estimate, it is just a regression of X on Y with no other covariates. An adjusted estimate is the same regression of X on Y in the presence of at least one covariate (Voils et al., 2011).

To further test for the strength of the association, adjusted linear regression analysis was conducted where the independent variables (age, education, marital status and occupation) that were significant in the unadjusted linear regression model were put together and regressed against the outcome/dependent variable (overall level of patient satisfaction). The results revealed that age, education, and occupation were still significantly associated with overall level of satisfaction ($p < 0.05$). However, marital status lost its level of significance ($p > 0.05$).

With regards to age, the results indicated a significant association between age and overall level of satisfaction ($p < 0.05$). Respondents in the age range 21-30 years were 4.52 likely to report higher level of satisfaction (95%CI:0.03,9.91, $p = 0.044$), and respondents in age range 31-40 years were 7.23 likely to report higher level of satisfaction (95%CI:1.47-12.99, $p = 0.014$) with OPD care than those in the age range 18-20 years.

Furthermore, education was still significantly associated with overall level of satisfaction with OPD care ($p < 0.05$). The results showed respondents with basic education were 8 likely to report higher level of satisfaction (95%CI:2.41,13.6, $p = 0.005$), and respondents with

tertiary level of education were 9.2 likely to report higher level of satisfaction (95%CI:2.52,15.93, p=0.007) than those with no formal education. Moreover, respondents belonging ‘others’ level of education were 19.8 likely to report higher level of satisfaction (95%CI:6.37,33.31, p=0.004) than those with no formal education.

The occupation of respondents was significantly associated with overall level of satisfaction with OPD care in the adjusted model (p<0.05). The results indicated that respondents who were traders/artisans/drivers were 15.18 likely to report higher level of satisfaction (95%CI: 7.60, 22.76, p=0.001) than respondents who were students.

However, the marital status of respondents lost its significance when it was included in the adjusted linear regression model (p>0.05). The results of the adjusted linear logistic regression analysis of the association between socio-demographic characteristics and overall level of satisfaction are shown in Table 4.6.

Table 4.6: Multiple linear regression analysis: Association between socio-demographic characteristics and overall level of patient satisfaction

| Variable | β (95% CI) | P-value |
|-----------------------|----------------------|---------|
| Age (years) | | |
| 10-20 | Ref | |
| 21-30 | 4.52 (0.13, 9.91) | 0.044 |
| 31-40 | 7.23 (1.47, 12.99) | 0.014 |
| 41-50 | 3.55 (-4.55, 11.64) | 0.390 |
| 51-60 | 5.27 (-4.53, 15.08) | 0.291 |
| 60-70 | -6.26 (-18.53, 6.02) | 0.317 |
| Education | | |
| No formal education | Ref | |
| Basic | 8.00 (2.41, 13.6) | 0.005 |
| Secondary | 3.33 (-2.41, 9.07) | 0.225 |
| Tertiary | 9.22 (2.52, 15.93) | 0.007 |
| Others | 19.84 (6.37, 33.31) | 0.004 |
| Marital Status | | |
| Married | Ref | |

| | | |
|-----------------------|----------------------|--------|
| Single | 0.67 (-3.20, 4.53) | 0.735 |
| Widow | 0.80 (-8.78, 7.18) | 0.843 |
| Co-habiting | -4.61 (-12.00, 2.78) | 0.221 |
| Occupation | | |
| Student | Ref | |
| Farmer/fish farmer | 1.42 (-4.43, 7.26) | 0.634 |
| Teacher/Lecturer | -0.89 (-6.05, 4.26) | 0.733 |
| Public servant | 1.64 (-6.53, 9.80) | 0.693 |
| Civil servant | 1.66 (04.34, 7.66) | 0.586 |
| Trader/artisan/driver | 15.18 (7.60, 22.76) | <0.001 |

4.7. Spearman’s rank correlation coefficient: Association between health provider factors and overall level of patient satisfaction

This section presents the results of the analysis conducted to establish the strength of the association between health provider factors. It would be recalled that the Spearman’s rank correlation coefficient model was applied. Spearman’s rank correlation measures the strength and direction of association between two ranked variables, which basically gives the measure of monotonicity of the relation between two variables i.e. how well the relationship between two variables could be represented using a monotonic function (Gupta, 2021). The results showed both strong and weak associations among the health provider factors. Results that were close to 1 were termed as strong or perfect correlation while close to 0 were termed as weak correlation.

The results for technical quality TQ3 and technical quality TQ1 showed that there was a strong correlation (0.51), and technical quality TQ4 and technical quality TQ2 showed a strong correlation (0.55). The results for interpersonal manner IM1 and technical quality TQ4 showed a strong correlation (0.61).

In addition, there results for the time spent with the doctor TSWD1 and technical quality TQ4 revealed a strong correlation (0.57). Moreover, the results for the time spent with the doctor TSWD1 and interpersonal manner IM1 showed a strong correlation (0.57).

Additionally, the results for accessibility and convenience AC3 and interpersonal manner IM1 showed a strong correlation (0.51). Furthermore, the results for accessibility and convenience AC3 and the time spent with the doctor TSWD1 showed a strong correlation (0.57). The results of the Spearman correlation analysis of the association between health provider factors and overall level of patient satisfaction are displayed in table 4.7.



Table 4.7: Spearman correlation analysis: Association between health provider factors and overall level of patient satisfaction

| Variable | | GS1 | GS2 | TQ1 | TQ2 | TQ3 | TQ4 | IM1 | IM2 | Cm1 | Cm2 | FA1 | FA2 | TSWD1 | TSWD2 | AC1 | AC2 | AC3 | AC4 |
|---|-----|------|------|------|------|-------|------|------|------|------|------|------|-----|-------|-------|-----|-----|-----|-----|
| General Satisfaction | | | | | | | | | | | | | | | | | | | |
| The medical care I have been receiving is just about perfect | GS1 | 1.00 | | | | | | | | | | | | | | | | | |
| I am dissatisfied with some things about the medical care I receive | GS2 | 0.07 | 1.00 | | | | | | | | | | | | | | | | |
| Technical Quality | | | | | | | | | | | | | | | | | | | |
| I think my doctor's office has everything needed to provide complete medical care | TQ1 | 0.38 | 0.23 | 1.00 | | | | | | | | | | | | | | | |
| Sometimes doctors make me wonder if their diagnosis is correct | TQ2 | 0.18 | 0.42 | 0.39 | 1.00 | | | | | | | | | | | | | | |
| When I go for medical care, they are careful to check everything when treating and examining me | TQ3 | 0.28 | 0.27 | 0.51 | 0.44 | 1.00 | | | | | | | | | | | | | |
| I have some doubt about the ability of the doctors who treat me | TQ4 | 0.17 | 0.40 | 0.40 | 0.55 | -0.36 | 1.00 | | | | | | | | | | | | |
| Interpersonal Manner of Doctor | | | | | | | | | | | | | | | | | | | |
| Doctors act too business-like and impersonal towards me | IM1 | 0.15 | 0.42 | 0.39 | 0.49 | -0.39 | 0.61 | 1.00 | | | | | | | | | | | |
| My doctors treat me in a very friendly and courteous manner | IM2 | 0.23 | 0.21 | 0.40 | 0.35 | -0.62 | 0.39 | 0.38 | 1.00 | | | | | | | | | | |
| Communication of Doctor | | | | | | | | | | | | | | | | | | | |
| Doctors are good about explaining the reason for medical test | Cm1 | 0.28 | 0.20 | 0.39 | 0.36 | -0.43 | 0.36 | 0.42 | 0.49 | 1.00 | | | | | | | | | |
| Doctors sometimes ignore what I tell them | Cm2 | 0.10 | 0.28 | 0.26 | 0.46 | -0.45 | 0.49 | 0.49 | 0.49 | 0.36 | 1.00 | | | | | | | | |
| Financial Aspect of Patients | | | | | | | | | | | | | | | | | | | |
| I feel confident that I can get the medical care I need without being setback financially | FA1 | 0.24 | 0.09 | 0.29 | 0.16 | -0.34 | 0.10 | 0.21 | 0.37 | 0.30 | 0.30 | 1.00 | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|--|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| I have to pay for more of my medical care than I can afford | FA2 | 0.13 | 0.18 | 0.13 | 0.31 | -0.15 | 0.28 | 0.28 | 0.17 | 0.13 | 0.40 | 0.26 | 1.00 | | | | | | |
| Time spent with doctor | | | | | | | | | | | | | | | | | | | |
| Those who provide me medical care sometimes hurry too much when they treat me | TSWD 1 | 0.15 | 0.32 | 0.34 | 0.49 | -0.23 | 0.57 | 0.57 | 0.28 | 0.24 | 0.41 | 0.16 | 0.33 | 1.00 | | | | | |
| Doctors usually spend plenty of time with me | TSWD 2 | -0.07 | -0.19 | -0.22 | -0.29 | 0.13 | -0.30 | -0.43 | -0.11 | -0.19 | -0.21 | -0.16 | -0.15 | -0.34 | 1.00 | | | | |
| Accessibility and Convenience | | | | | | | | | | | | | | | | | | | |
| I have easy access to medical specialist I need | AC1 | 0.20 | 0.18 | 0.41 | 0.27 | -0.45 | 0.22 | 0.36 | 0.37 | 0.40 | 0.26 | 0.40 | 0.15 | 0.18 | -0.21 | 1.00 | | | |
| Where I get medical care, people have to wait too long for emergency treatment | AC2 | 0.15 | 0.26 | 0.31 | 0.43 | -0.36 | 0.39 | 0.45 | 0.36 | 0.26 | 0.44 | 0.24 | 0.35 | 0.44 | -0.29 | 0.38 | 1.00 | | |
| I find it hard to get an appointment for medical care right away | AC3 | 0.15 | 0.31 | 0.32 | 0.38 | -0.36 | 0.46 | 0.51 | 0.33 | 0.34 | 0.44 | 0.21 | 0.35 | 0.48 | -0.29 | 0.39 | 0.57 | 1.00 | |
| I am able to get medical care whenever I need it | AC4 | 0.24 | 0.10 | 0.37 | 0.23 | -0.47 | 0.16 | 0.26 | 0.46 | 0.32 | 0.29 | 0.41 | 0.12 | 0.20 | -0.04 | 0.48 | 0.40 | 0.34 | 1.00 |



4.8. Chapter Summary

This chapter presented findings of this research after data analysis in accordance with the study objectives. The results showed sex, duration of care and health insurance status as the socio-demographic characteristics that were not associated with overall level of satisfaction. However, age, education, marital status and occupation were significantly associated with overall level of satisfaction with the Out-Patient Department (OPD) care at the Potsin Polyclinic. There was also a strong correlation between some facility factors such as technical quality, interpersonal manner, communication, financial aspect of patients, time spent with doctors, and accessibility and convenience among respondents who accessed OPD care at the facility.



CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0. Introduction

This chapter presents analysis of how the findings of the study compare with existing literature and theoretical perspective presented in the chapter two. These are presented in sections related to the specific objectives of the study. Section one presents socio-demographic characteristics. Section two presents the overall level of patient satisfaction with OPD care. Section three presents individual (patients' socio-demographic characteristics) factors and overall level of satisfaction. Section four presents health provider factors and overall level of patient satisfaction. The chapter ends with summary of the main ideas and an indication of what is contained in the subsequent chapter.

5.1. Individual (patients' socio-demographic characteristics) factors and overall level of satisfaction

The study was participated in by a total of 354 patients who responded to the questionnaires giving a response rate of 100%. It would be recalled from the chapter two that socio-demographic characteristics were argued to be significant factors to consider when assessing satisfaction among populations, including satisfaction with policies (Al-Dubai et al., 2013). Hence, this study also evaluated the socio-demographic characteristics of the study participants and descriptively found that males (42.9%) were fewer while females constituted 57.1%. The highest proportion (44.4%) belonged to the age range of 10-20 years and the least proportion (2.3%) belonged to the age range of 60-70 years. These statistics showed similarities and differences with earlier ones reported (see Ofei-Dodoo, 2019).

In terms of duration of care accessed at the Potsin Polyclinic, the results revealed that the highest proportion (87.6%) had been attending the hospital for less than 10 years. The

findings showed that the highest proportion (47.5%) had attained secondary school level of education. Ofei-Dodoo (2019) reported that there were more women (51.8%) than men, and nearly 98% of the respondents were currently working in their study in Ghana.

Additionally, whereas the highest proportion (53.7%) included respondents who were single, the least proportion (4.5%) included respondents who were co-habiting. In terms of occupational level, the highest proportion (49.2%) involved respondents who were students and the least proportion (4.0%) who were public servants. The findings showed that 78% of the respondents were insured with the National Health Insurance Scheme (NHIS) whilst the remaining (21.2%) were uninsured. These findings support the argument that there is some varying importance of some socio-demographic variables on patient perception of healthcare quality, patient satisfaction, and patient trust (Alrubaiee & Alkaa'ida, 2011).

When the unadjusted linear regression model was applied to establish the association between individual (patients' socio-demographic characteristics) and overall level of satisfaction with OPD care, age was significantly associated ($p < 0.05$). Similarly, there was a significant association between age and overall level of satisfaction with OPD care in the multiple linear regression ($p < 0.05$). The findings revealed that respondents in the age range 21-30 years were 4.52 likely to report higher level of satisfaction (95%CI:0.03,9.91, $p = 0.044$), and respondents in age range 31-40 years were 7.23 likely to report higher level of satisfaction (95%CI:1.47-12.99, $p = 0.014$) with OPD care than those in the age range 10-20 years. This finding regarding the age range and patient satisfaction relates to some studies, which found that patients aged 50 years and more exhibited lower service satisfaction scores compared to young age patients in Iraq (Jadoo et al., 2020). However, this finding contrasted with a study,

which found that age was not associated with satisfaction at the Hospital Universiti Sains Malaysia dental clinic (Tin-Oo et al., 2011).

Earlier studies have noted a strong association between educational level and patient satisfaction (Hernández-García et al., 2009). This current study found a significant association between educational level and overall level of satisfaction with OPD care ($p < 0.05$) in the unadjusted model as well as in the multiple linear regression model ($p < 0.05$). Respondents with basic education were 8 likely to report higher level of satisfaction (95%CI:2.41,13.6, $p = 0.005$), and those with tertiary level of education were 9.2 likely to report higher level of satisfaction (95%CI:2.52,15.93, $p = 0.007$) than those with no formal education. Moreover, respondents belonging to 'others' level of education were 19.8 likely to report higher level of satisfaction (95%CI:6.37,33.31, $p = 0.004$) than those with no formal education. This finding on the level of education corroborates with a study, which observed that average satisfaction was higher among clients with a primary or secondary education compared with none at the Mulago Hospital in Uganda (Nabbuye-Sekandi et al., 2011). On the contrary, a study showed that the level of education of patients had no link with their satisfaction with healthcare services at the Tamale Teaching Hospital (TTH) in Northern Ghana (Iddrisu, Mumuni, Ahmed, Mohammed, & Yahaya, 2019).

The findings of the study showed a significant association between marital status and overall level of satisfaction with OPD care ($p < 0.05$) in the unadjusted model. Marital status was indirectly related to overall level of patient satisfaction where respondents who were single were 3.51 likely to report lower level of satisfaction with OPD care (95%CI: -6.77, 24, $p = 0.035$) compared to those who were married. A similar study reported that marital status was significantly associated with patient satisfaction in France (Vân France et al., 2011).

Nevertheless, this study found that marital status was not significant in the multiple linear regression model ($p > 0.05$). Similarly, this part of the findings related to another study, in which marital status had no impact on patient satisfaction in private hospitals in Hyderabad, India (Meesala, & Paul, 2018).

It would be recalled that a study found that occupation was significantly associated with the levels of patient satisfaction in Pakistan (Jalil et al., 2017). In a similar vein, this study found that there was a significant association between occupation and overall level of satisfaction with OPD care ($p < 0.05$) in the unadjusted model and in the multiple linear (adjusted) regression model ($p < 0.05$). In the unadjusted model, respondents who were teachers/lecturers were 5.50 likely to report higher level of satisfaction (95%CI: 1.45,9.51, $p = 0.007$), civil servants were 7.23 likely to report higher level of satisfaction (95% CI: 2.03,12.47, $p = 0.007$), and traders/artisans/drivers were 14.62 likely to report higher level of satisfaction (95%CI: 7.92,21.33, $p = 0.001$) compared to those who were students.

Thus, in the multiple linear model, respondents who were traders/artisans/drivers were 15.18 likely to report higher level of satisfaction (95%CI: 7.60, 22.76, $p = 0.001$) than respondents who were students. The findings seem to relate to a study, which found that patients were perfectly satisfied in hospitals where nurses had higher job satisfaction in hospitals in Iran (Jalal, Joolae, Hajibabae, & Bahrani, 2015). However, a study found no significant association between respondents' occupation and patient satisfaction with health care services in selected health facilities in the Central Region of Ghana (Ampofo & Opoku-Danso, 2017).

Overall, the findings of the individual (patients' socio-demographic characteristics) showed that age, education, marital status and occupation were significantly associated with overall

level of satisfaction ($p < 0.05$) in the unadjusted model. However, sex, duration of care, and insurance status were not significantly associated with overall level of patient satisfaction ($p > 0.05$) in this model. In the multiple linear regression, while age, education, and occupation were still significantly associated with overall level of patient satisfaction with OPD care ($p < 0.05$), marital status was not significant in this model ($p > 0.05$).

Theoretically, the findings of this study related to the individual (patients' socio-demographic characteristics) factors sit very well with the observation that the quality of care framework relates quality of care to individual patients since quality of care is a concept that is at its most meaningful when applied to the individual user of health care (Ruble, 1989).

5.2. Overall level of patient satisfaction with OPD care

This section presents analysis of how the findings of the overall level of patient satisfaction with the OPD care at Potsin Polyclinic were consistent with current documented evidence. The overall level of satisfaction was 64% among the respondents accessing OPD care at the Potsin Polyclinic. This study found that the overall level of satisfaction was higher than what had been recorded in earlier studies (see Atinga et al., 2011; Sagaro et al., 2015). Sagaro et al. (2015) reported 54.2% overall patient satisfaction with the health care service provided at OPD clinics at Wolaita Sodo University Teaching Hospital, Southern Ethiopia.

In a related study, a study found that the 'five-factor model support/care, environment of the facility and waiting time determined 51% of patient satisfaction with quality of healthcare delivery in Ghana (Atinga et al., 2011: 548). Supporting this lower level of satisfaction, a study also found that the overall level of patient satisfaction consisted of 57% among respondents during their last outpatient visit in Ghana (Ofei-Dodoo, 2019). Contrarily, the

overall level of patient satisfaction (64%) was lower than other studies reported elsewhere (Woldeyohanes et al., 2015; Gangai, 2015). Gangai (2015) observed that overall, 90.3% of patients were satisfied with the level of care they received at the Untunjambili Hospital in South Africa.

From the theoretical angle, the findings support the reason why some researchers explained that patient satisfaction is a measure of health system performance and could be used as a foundation of encouraging health care providers to become more responsible to their patients (Olomi et al., 2016). Within the quality of care perspective, patient satisfaction is an outcome, which refers to how the healthcare provision affects the health status of a particular patient population (Donabedian, 1988; Bonyo, 2019).

5.3. Health provider factors and overall level of patient satisfaction

This section presents analysis of how the findings of the health provider factors could relate to available literature. The results were based on the use of the Spearman's rank correlation coefficient model (Gupta, 2021). Generally, the findings revealed both strong and weak associations among the health provider factors. These findings resonate with the theoretical construct of healthcare model of quality of care (showing structure, process and outcome), which is one of the dominant frameworks applied in healthcare. Thus, the finding support the argument that this framework provides a basis for researchers to understand what could be applied to examine the quality of care in healthcare settings (see Donabedian, 1988; McDonald et al., 2007; Bonyo, 2019).

Medical care

On the concept of general satisfaction as a quality of care variable, the study found that respondents were more satisfied with medical care ($M=4.36$, $SD=0.83$) at the Potosin Polyclinic. Similarly, a study found clients who visited a private hospital showed that their level of satisfaction with the quality of healthcare was relatively higher than those who visited the public hospital in Ghana (Kodom et al., 2019). However, in the Spearman's correlation model, medical care showed a weak correlation as technical quality TQ1 and general satisfaction GS1 (0.38) and technical quality TQ2, general satisfaction GS2 (0.42) and technical quality TQ4 and general satisfaction GS2 (0.40) were not closer to 1. This finding is also supported by a study, which revealed a gap on health services provision, signifying overall dissatisfaction among patients accessing hospitals in Tanzania (Olomi et al., 2016). Theoretically, the findings support the proposition that patient satisfaction is an instrumental tool for identifying shortcomings and challenges of the health system and provides patients with a constructive outlet to rate their hospital experience (Gangai, 2015).

Technical quality aspect/ Competency of health providers (structure)

The theoretical position of technical quality is within the structure as quality of care explains that the structure describes the context in which care is delivered, which includes the healthcare infrastructure, human resources, financing, equipment, and environment (Donabedian (1988). A study found that patient satisfaction was the highest in terms of service factors or tangible priorities, particularly technical quality in Malaysia (Ganasegeran et al., 2015). With respect to technical quality aspect, the respondents in this study were more satisfied with the fact that the doctor's office had everything needed to provide complete medical care ($M=4.03$, $SD=1.09$). In the Spearman's correlation, the findings for technical quality TQ3 and technical quality TQ1 indicated that there was a strong correlation

(0.51), and technical quality TQ4 and technical quality TQ2 showed a strong correlation (0.55). This finding is supported by a study, which found that cultural competence, training of healthcare providers was significantly associated with increased patient satisfaction (Govere & Govere, 2016). On the other hand, studies noted that the lack of empathy, poor level of competencies and disregard for patient suffering in medical practice had caused substantial dissatisfaction towards public healthcare service providers in Malaysia (Ganasegeran & Al-Dubai, 2014; Andaleeb et al., 2007; Al-Dubai et al., 2013).

Interpersonal manner/ Health provider-patient relationship (process)

Gangai (2015) found that statements relating to personality such as staff friendliness, and doctors treating patients respectfully scored highly among patients in South Africa. The findings revealed that respondents were more satisfied with how their doctors treated them in a very friendly and courteous manner (M=4.16, SD=1.08). The Spearman correlation showed that interpersonal manner IM1 and technical quality TQ4 had a strong correlation (0.61). This finding has some relationship with a study, which indicated that the human dimensions of service quality were perceived by the insured patients to be good, and they constituted significant determinants of perceived service quality in Ghana (Atinga, 2012). However, a contrary report showed that patients who were less satisfied with the socio-cultural atmosphere and the identity-oriented approach to their care tended to perceive their care as less acceptable in China (Xie, & Or, 2017). Within the theoretical perspective of quality of care, the findings of this study of interpersonal manner relate to the process, which is the interaction between patients and healthcare providers in the provision of healthcare (Donabedian, 1988).

Communication/Provider-patient communication (process)

The results relating to communication had a theoretical relationship with the process element of quality of care, which indicates the interaction between patients and healthcare providers in the provision of healthcare (Donabedian, 1988). Dzomeku (2011) had recommended that staff of a hospital should have frequent continuing education on communication and interpersonal relationship. This suggestion was assessed in this study. The findings revealed that in terms of overall level of satisfaction with communication with the doctor/health providers, respondents were more satisfied with how doctors were good about explaining the reason for medical test ($M=4.06$, $SD=1.13$).

This finding was similar to a study, which indicated that patients' perceptions of patient-provider communication, and health education quality constituted strong predictors for satisfaction in Lebanon (Hemadeh et al., 2019). However, Spearman's correlation showed weak association as communication CM1 and interpersonal manner IM2 (0.49) and communication CM2 and technical quality TQ2 (0.42) and communication CM1 and interpersonal manner IM1 (0.42) were not closer to 1. This was similar to an earlier finding that most of the patients were dissatisfied with the level of health education, communication and information they received about their illness in Southwest Ethiopia (Woldeyohanes et al., 2015).

Financial aspect / Cost of health care (structure and outcome)

A study had noted that factors which affected patient satisfaction included affordability and convenience in northern India (Kamra et al., 2016). In this study, findings on the overall level of satisfaction regarding the financial aspect indicated that respondents were neutral with how they felt confident that they could get the medical care they needed without being

setback financially ($M=3.77$, $SD=1.25$). Similarly, in the Spearman's correlation, financial aspect showed a weak association where financial aspect FA1 and communication CM1 (0.30), financial aspect FA1 and communication CM2 (0.30) and financial aspect FA2 and communication CM2 (0.40) were not closer to 1. This could be as a result of the cost of health care since an earlier study had noted that out of 80% of patients who were satisfied with basic amenities, 40% were of the view that services were costlier than their affordability (Sharma et al., 2011). However, a study found that there was higher overall patient satisfaction with health care and prescription drug expenditures in the US (Fenton et al., 2012). The findings related to the financial aspect are within the theoretical purview of structure in the quality of care, which describes the context in which care is delivered, which includes the healthcare infrastructure, human resources, financing, equipment, and environment (Donabedian, 1988; Bonyo, 2019).

Time spent with the doctor/ Waiting time (process)

In the theoretical context of quality of care, time spent with the doctor was considered a process element because it is the interaction between patients and healthcare providers in the provision of healthcare (Donabedian, 1988). Xie and Or (2017) informed that patients who were less satisfied with the sociocultural atmosphere and the identity-oriented approach to their care tended to perceive the amounts of time they spent waiting and receiving care as less acceptable. The findings on the time spent with the doctor and overall level of patients' satisfaction showed that respondents were neutral with how those who provide them medical care sometimes hurry too much when they treat them ($M=3.49$, $SD=1.39$). This could explain why a study noted that although waiting time was generally, perceived to be long, it was not in any way associated with patient perception of quality of care in Ghana (Atinga, 2012).

In the Spearman's correlation, the findings for the time spent with the doctor showed an association with technical quality TQ4 revealed a strong correlation (0.57), and the time spent with the doctor TSWD1 and interpersonal manner IM1 showed a strong correlation (0.57). This finding was supported by a study, which found that in Peruvian ambulatory care facilities, both waiting time and consultation time showed an association with overall patient satisfaction (Alarcon-Ruiz et al., 2019). On the contrary, a study observed that respondents who waited less than or equal to 30 minutes in waiting area preceding consultation were more satisfied than those who waited 60 minutes and above in Southern Ethiopia (Sagaro et al., 2015).

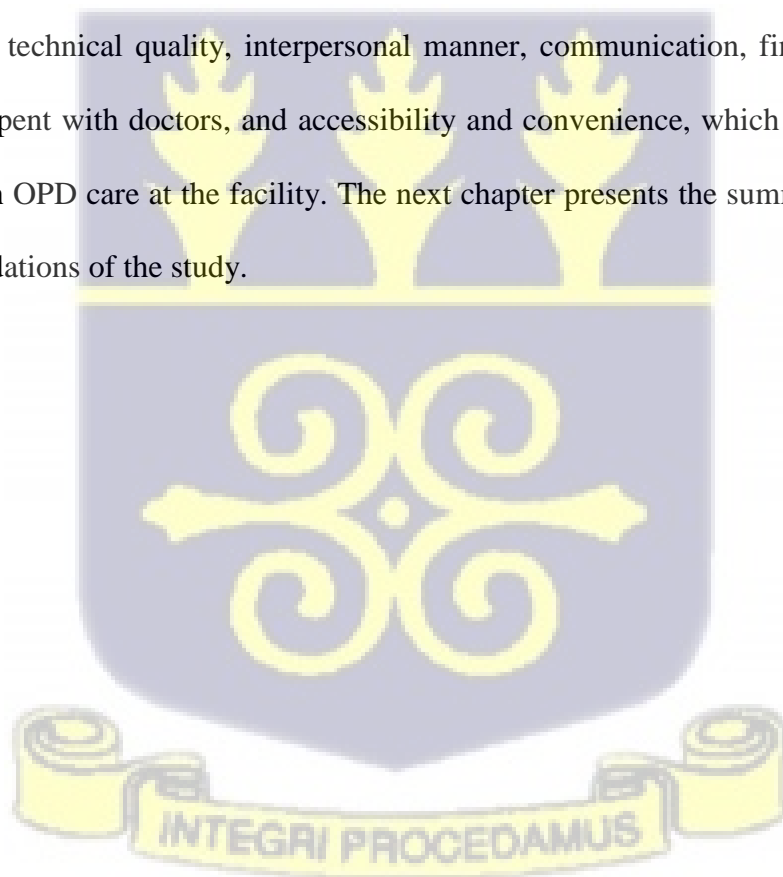
Accessibility and convenience/ Health facility and infrastructure (structure)

It would be theoretically, observed that Donabedian (1988) explained that the structure element of quality of care describes the context in which care is delivered, which includes the healthcare infrastructure, human resources, financing, equipment, and environment. Pajnikhar et al. (2017) had indicated that differences in perceptions of curative factors between health care institutions were probably the result of different institutional factors, which must be taken into account for enhancing patient satisfaction. On the issue of overall level of satisfaction with regards to accessibility and convenience of medical care, the finding revealed that respondents were more satisfied with how they were able to get medical care whenever they needed it (M=4.12, SD=1.17). In addition, the findings of Spearman's correlation for accessibility and convenience showed a strong association since accessibility and convenience AC3 and interpersonal manner IM1 showed a strong correlation (0.51) as well as accessibility and convenience AC3 and the time spent with the doctor TSWD1 showed a strong correlation (0.57). This explains why a study noted that 70% of patients said

that they would go to the emergency room of the hospital in future if needed instead of going to the primary care clinic in Kuwait (Alhashem et al., 2011).

5.4. Chapter Summary

This chapter has presented how the findings related to relevant literature. The analysis revealed that age, education, marital status, and occupation were significantly associated with overall level of satisfaction with the Out-Patient Department (OPD) care at the Potsin Polyclinic. Nonetheless, sex, duration of care and health insurance status were the individual (patients' socio-demographic characteristics), which were not associated with overall level of satisfaction. The findings also revealed a strong correlation between some health provider factors such as technical quality, interpersonal manner, communication, financial aspect of patients, time spent with doctors, and accessibility and convenience, which showed a strong correlation with OPD care at the facility. The next chapter presents the summary, conclusion and recommendations of the study.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0. Introduction

This chapter presents the summary, conclusion, and recommendations based on the findings of the study. These are presented in sections related to the summary of the study, the conclusion of the study, contribution to knowledge, recommendations of the study, limitations to the study, and future research.

6.1. Summary of the study

The study had a general objective of assessing factors associated with patient satisfaction at the outpatients' department (OPD) of the Potsin Polyclinic in the Gomoa East District, Central Region. The aim of the study was achieved where a cross-sectional study design using quantitative methods was adopted to collect data for analysis. The study recruited 354 patients attending the Potsin Polyclinic to respond to a structured questionnaire with sections covering the specific objectives. The data from the answered questionnaires was analysed using appropriate statistical models such as the chi-square test and multiple linear regression. Generally, the overall level of satisfaction was 64% among the respondents accessing OPD care at the Potsin Polyclinic. This was encouraging given the fact that the facility is in a subtle competition with bigger institutions like Winneba Trauma and Specialist Hospital.

On the individual (patients' socio-demographic characteristics) factors, the study concludes that age ($p < 0.05$), education ($p < 0.05$), and occupation ($p < 0.05$) were the factors that were significantly associated with the overall level of patient satisfaction with OPD care in the multiple linear regression. This means that patients attending the Potsin Polyclinic would be satisfied based on their age, education, and occupational status.

The study also concludes that factors, which showed a strong correlation between health provider factors and patient satisfaction were technical quality ($p<0.05$), interpersonal manner ($p<0.05$), communication ($p<0.05$), the financial aspect of patients ($p<0.05$), time spent with doctors ($p<0.05$), and accessibility and convenience ($p<0.05$). This means that patients attending the Potsin Polyclinic would be satisfied if the health providers could emphasise these factors accordingly. The conclusion drawn based on the specific objectives has been presented below.

6.2. Conclusion of the study

This section presents conclusions of the study related to the specific objectives, which were individual (patients' socio-demographic characteristics) factors and health provider factors associated with patient satisfaction as presented below.

6.2.1. Individual (patients' socio-demographic characteristics) factors and satisfaction with OPD care at Potsin Polyclinic

The study had the objective to examine the association between individual (socio-demographic characteristics) factors and patient satisfaction with OPD service at the Potsin Polyclinic. The study found that males (42.9%) were fewer than females (57.1%). The highest proportion (44.4%) belonged to the age range of 10-20 years and the least proportion (2.3%) belonged to the age range of 60-70 years. The study concludes and argues that there was a significant association between age and overall level of patient satisfaction with OPD care ($p<0.05$). The study found that respondents in the age range 21-30 years were 4.52 likely to report a higher level of satisfaction (95%CI:0.03,9.91, $p=0.044$), and those in the age range 31-40 years were 7.23 likely to report a higher level of satisfaction (95%CI:1.47-12.99, $p=0.014$) with OPD care than those in the age range 10-20 years. This conclusion confirms

earlier findings in the literature (Jadoo et al., 2020; Tin-Oo et al., 2011). This suggests that the Potsin Polyclinic was providing care to a relatively younger population group(s). Therefore, the management of the health facility should introduce modern technology in order to attract and retain such a youthful clientele.

Moreover, the study concludes that another individual factor, which showed a significant association was educational level and overall level of satisfaction with OPD care ($p < 0.05$). The study found that patients with basic education were 8 likely (95%CI:2.41,13.6, $p = 0.005$), those with tertiary level of education were 9.2 likely (95%CI:2.52,15.93, $p = 0.007$), and those belonging to 'others' level of education were 19.8 likely to report higher level of satisfaction (95%CI:6.37,33.31, $p = 0.004$) than those with no formal education. This conclusion corroborates with what had been documented in the literature (Nabbuye-Sekandi et al., 2011; Iddrisu et al., 2019). This means that patients who accessed OPD care at the Potsin Polyclinic had attained an appreciable level of formal education as well as other educational qualifications. This means that the management of the facility should structure their health promotion and educational strategies to address the needs of these people with varied educational qualifications in the communities.

In addition, the study concludes that occupation was significantly associated with the level of patient satisfaction ($p < 0.05$). The study found that respondents who were traders/artisans/drivers were 15.18 likely to report higher level of satisfaction (95%CI: 7.60, 22.76, $p = 0.001$) than respondents who were students. A similar finding has been reported in some documents (Jalal et al., 2015; Ampofo & Opoku-Danso, 2017). This means that patients who accessed health care at the Potsin Polyclinic were mostly not in the formal

sector of employment. Thus, the management of the facility should endeavour to set hospital charges in accordance with the purchasing power of this group in the general population.

The findings of this study on the individual (patients' socio-demographic characteristics) factors (age, education and occupation) confirmed the theoretical construct of quality of care and patient satisfaction (Ruble, 1989; Donabedian, 1988).

6.2.2. Overall level of patients' satisfaction with OPD care

The study was set out to determine the level of patient satisfaction with OPD service at the Potsin Polyclinic. The study concludes that the overall level of satisfaction was 64% among the respondents. This level of satisfaction compared both favourably and unfavourably with what had been reported in earlier studies (see Atinga et al., 2011; Sagaro et al., 2015). However, since the overall level of patient satisfaction (64%) was lower than what had been noted in other studies, it means that the Potsin Polyclinic still had some room for improvement on its modest achievement in the provision of patient-centered care (Gangai, 2015). Theoretically, this objective sits with the concept of patient satisfaction, which is an outcome, which affects the health status of a particular patient population (Donabedian, 1988; Bonyo, 2019).

6.2.3. Health provider factors and overall level of patient satisfaction

The study had another objective to assess the association between health facility factors and patient satisfaction with OPD service at the Potsin Polyclinic. The study draws the conclusions on this objective based on the findings of health provider factors, which were significantly associated with overall patient satisfaction in Spearman's rank correlation coefficient model.

Technical quality aspect/ Competency of health providers (structure)

The study concludes that technical quality was associated with the overall level of patient satisfaction in Spearman's correlation model. The study found that technical quality TQ3 and technical quality TQ1 (0.51), and technical quality TQ4 and technical quality TQ2 (0.55) all revealed a strong correlation with patient satisfaction. This conclusion is related to earlier findings in the literature (Govere & Govere, 2016). Therefore, it behooves the management of Potsin Polyclinic to address any shortfalls within the competencies of its staff in order to enable them to provide care that would meet the needs of the clients in the communities.

Interpersonal manner/ Health provider-patient relationship (process)

The study found and concludes that interpersonal manner was associated with patient satisfaction with OPD care. Respondents were more satisfied with how their doctors treated them in a very friendly and courteous manner (M=4.16, SD=1.08). This was confirmed in the Spearman correlation model, which also revealed that interpersonal manner IM1 and technical quality TQ4 had a strong correlation (0.61). This conclusion resonates with similar findings in the literature (Atinga, 2012). This suggests the idea that the management of the Potsin Polyclinic will have to continue to improve the provider-patient relationship in the process of delivering quality healthcare. This will help to sustain the interest of its clients who will be ambassadors for its publicity campaigns.

Time spent with the doctor/ Waiting time (process)

The study concludes that time spent with the doctor was associated with patient satisfaction with OPD care. The argument is that while respondents were neutral with how those who provide them medical care sometimes hurry too much when they treat them (M=3.49, SD=1.39), the time spent with the doctor was strongly correlated with patient satisfaction in

the Spearman's model where TSWD1 and technical quality TQ4 (0.57) and the time spent with the doctor TSWD1 and interpersonal manner IM1 (0.57) both revealed a strong correlation. This conclusion has a relationship with some evidence documented earlier (Alarcon-Ruiz et al., 2019). This means that the management of the Potsin Polyclinic should impress on its staff to spend much longer time when dealing with patients so as to be able to understand their symptoms and concerns. This will encourage the involvement of patients and their caregivers in their own care plans.

Accessibility and convenience/ Health facility and infrastructure (structure)

One other conclusion of the study was that there was an association between accessibility and convenience and overall level of satisfaction with OPD care. Respondents were more satisfied with how they were able to get medical care whenever they needed it (M=4.12, SD=1.17). This was manifested in the strong association in Spearman's correlation model, where accessibility and convenience AC3 and interpersonal manner IM1 (0.51) as well as accessibility and convenience AC3 and the time spent with the doctor TSWD1 (0.57) both revealed a strong correlation. This conclusion has some significance with evidence in the literature (Alhashem et al., 2011).

Generally, the conclusion of the study based on these above-discussed factors (technical quality aspect/competency of health providers, interpersonal manner/health provider-patient relationship, time spent with the doctor/waiting time, and accessibility and convenience/health facility and infrastructure) were theoretically, consistent with the quality of care perspective (Ruble, 1989; Donabedian, 1988).

6.3. Contribution to knowledge

This section presents analysis of how the findings of this study contribute to existing knowledge in the field of quality of care/patient satisfaction categorised as policy and practice, methodology and theory as presented below.

6.3.1. Contribution to policy and practice

It would be recalled that the Ministry of Health propagated a definition of quality in its National Healthcare Quality Strategy (NHQS) as ‘Health care quality is the degree to which health care interventions are in accordance with standards and are safe, efficient, effective, timely, equitable, accessible, client-centered, apply appropriate technology and result in positive health outcomes, provided by an empowered workforce in an enabling environment’ (Ministry of Health (MoH), 2016: viii). This strategy has the goal of continuously improving the health and well-being of Ghanaians through the development of a better-coordinated health system that places patients and communities at the centre of quality care (MOH, 2016).

To achieve the overall goal, the following strategies have been proposed (MoH, 2016: viii):

1. Continuously improve health outcomes in the population health priority areas,
2. Develop a coordinated healthcare quality system in the areas of quality planning, quality control, and quality improvement – including improved use of data for evidence-based decision making, and
3. Improve client experience by being responsive to the health needs and aspirations of the patient and the community

The findings of this study may contribute towards achieving some of the above quality of care strategies in terms of the reformulation of the policy by policymakers and practitioners

in the healthcare environment. The study's finding on the overall level of satisfaction (64%) among the respondents could be considered in assessing whether the strategy on the continuous improvement in health outcomes in the population health priority areas. Since the respondents were satisfied, it goes to confirm the improvement in the health outcome, which affects the health status of a particular patient population, in this case, the people in the communities that the Potsin Polyclinic serves (Donabedian, 1988; Bonyo, 2019).

The findings of this study relate to the strategy of developing a coordinated healthcare quality system in the areas of quality planning, quality control, and quality improvement – including improved use of data for evidence-based decision making. This means that the findings that there was a significant association between these factors (technical quality aspect/competency of health providers, interpersonal manner/health provider-patient relationship, time spent with the doctor/waiting time, and accessibility and convenience/health facility and infrastructure) and patient satisfaction will show how health care institutions could apply such elements in the quality planning, quality improvement, quality assurance, and quality control strategies. Thus, the study can contribute to discussions on the need to build evidence-based data for analysis and decision-making in the health sector.

The findings of the study relating to individual factors will help to encourage policymakers to identify the different population characteristics and provide tailor-made policies towards improving client experience by being responsive to the health needs and aspirations of the patient and the community in the Gomoa East District. That is, the finding of the study based on the association between respondents' age, education, and occupation and patient satisfaction could be considered when health policymakers are devising quality of care strategies.

6.3.2. Contribution to methodology

The study contributes to the use of appropriate methodology for assessing patient satisfaction in the Ghanaian healthcare environment. Whereas some studies have applied qualitative methodology, others have applied the quantitative research methodology to collect empirical data. For instance, some studies applied qualitative research methods to collect data on patient satisfaction in some health institutions in Ghana (see Amu, & Nyarko, 2019; Ampiah, Ahenkorah, & Karikari, 2019). The study's approach to methods of data collection responds to the quantitative methodology applied in earlier studies on patient satisfaction in Ghana (see Aniah, 2015; Ampofo, & Opoku-Danso, 2017; Essilfie-Bondzie, 2018; Appiah, 2019; Ofei-Dodoo, 2019; Anaba et al., 2020). The advantage of applying the quantitative research methodology in this study was the ability to randomly select a cross-section of the population and use of a robust data analytical strategies for analysis. These provided the confidence to generalize the study to the population served by the Potsin Polyclinic in particular and the entire Gomoa East District of Ghana.

6.3.3. Contribution to theory

This study contributes to the use of a theoretical perspective for explaining patient satisfaction with quality of care provided in health institutions. Different theoretical perspectives have been applied to explain the findings of studies conducted on patients' satisfaction in Ghana and elsewhere. While some studies have assessed the behaviour intentions of patients through customer satisfaction/patient satisfaction in Ghana (Agyapong, Afi, & Kwarteng, 2018), other studies also evaluated the potential viability of service quality-related (SERVQUAL-related) model as a tool for assessing service quality (SQ) in Ghana's health sector (Anabila, Kumi, & Anome, 2019).

Like this study's theoretical perspective of quality of care and patient satisfaction, earlier studies had applied either patient satisfaction or a combination of health-care service quality and patient satisfaction perspectives in the health sector of Ghana (Abuosi, & Braimah, 2019; Ampaw, Chai, Liang, Tsai, & Frempong, 2020). The application of the theoretical models of quality of care and patient satisfaction helped to explain the findings of this study accordingly. For example, the findings of this study on the individual (patients' socio-demographic characteristics) factors such as age, education and occupation confirmed the theoretical construct of quality of care and patient satisfaction (Ruble, 1989; Donabedian, 1988). As noted earlier, in theoretical terms, the assessment of the overall level of patient satisfaction corresponds with the concept of patient satisfaction, which is an outcome, which affects the health status of a particular patient population (Donabedian, 1988; Bonyo, 2019).

Moreover, the findings of this study based on the health provider factors such as technical quality aspect/competency of health providers, interpersonal manner/health provider-patient relationship, time spent with the doctor/waiting time, and accessibility and convenience/health facility and infrastructure could be extended to the theoretical perspective of the quality of care model (Ruble, 1989; Donabedian, 1988). This shows the need for the health sector to embrace and ensure the provision of adequate infrastructure and utilize a human process in the delivery of healthcare, which would ultimately lead to patient satisfaction as an outcome.



6.4. Recommendations of the study

This section presents the recommendations of the study for targeted stakeholders as below.

6.4.1. Ministry of Health / Ghana Health Service

The sector Ministry of Health and its agency the Ghana Health Service responsible for developing and implementing health sector policies respectively, should consider the findings of this study related to the key quality of care indicators when revising its health sector quality strategy, which was due to take place in 2021, but may be ongoing (MoH, 2016). The policy makers should ensure that the health care sector is provided with the needed human, financial and material resources to enable the practitioners to deliver care that is of the expected standard in an era where patients are paying for healthcare either out-of-pocket or through the National Health Insurance Scheme (see Alhassan, Nketiah-Amponsah, & Arhinful, 2016). This means that the patients may have high expectations when they report to the health sector (see Atinga, 2012).

6.4.2. Management of Potsin Polyclinic

The management of the Potsin Polyclinic should try as much as possible to implement the findings of the study through a dissemination strategy using the processes for the staff to be aware of the identified gaps. There will be the need to provide training on customer care for the staff, especially emphasizing on quality of care indicators that were significant in the study as well as those that were not significant should be looked at again. The need to involve all facets of staff of the facility in the quality of care strategy's implementation will ensure a wholistic delivery of quality of care for people within the environs of Potsin in particular and Gomoa East in general. Arguably, the provision of an enabling environment and suitable equipment and material resources for the staff to work would enhance their own

satisfaction, which would translate into their interactions with the patients who access healthcare – both provider satisfaction and patient satisfaction should be the core concept for the management in developing its mission and vision. This will ensure improvements in patients' experiences, quality, and clinician/provider burnout (Reid et al., 2010).

6.4.3. Community / Patients of Gomoa East District

It could be argued that in recent times, people in some communities still report for healthcare only when the conditions are at their critical stage (see Ganle, Parker, Fitzpatrick, & Otupiri, 2014). The study recommends that there is the need for the health providers working at the Potsin Polyclinic to engage the patients who come from the communities on issues of reporting early to the facility with common health conditions. This will enable the health providers to address such healthcare needs timely to prevent escalation into critical stage. The community members should also understand that age, education and occupational variations could equally account for their different health conditions as well as satisfaction with health care accessed. The community members should be impressed upon to consider such factors as they age.

6.5. Limitations to the study

This section presents the limitations encountered in the conduct of the study. The sample size used for the study was relatively small considering the fact that the Gomoa East District has an estimated population of 308,697 with 152,238 (49.3%) male and 156,459 (50.7%) female according to the 2021 population and housing census (Ghana Districts, 2022). This means that the study could have made use of a larger sample size. However, there was a time constraint to the period for data collection. This necessitated the inclusion of participants aged 10 years and above just to be able to achieve the sample size within the time frame for

data collection. Thus, the parents/carers of the participants within the age of consent responded to the questions on their behalf. The lack of a third-party financial support limited the conduct of the study in many ways. If there was some sponsorship, the researcher could have included other health facilities within the Central Region to provide the grounds for comparison. In addition, the study was limited to only one district out of the 261 metropolitan, municipal and district Assemblies as well as the Central Region selected out of the 16 regions in Ghana (Ghana Missions, 2022). Another area of limitation to the study was the non-application of the qualitative research methodology. Since only the quantitative methods were applied, it provided the basis for generalisation of the findings to the population of the study in the district. However, there was no way to explain why respondents gave the answers that they provided. Thus, if a qualitative method had been applied, this would have provided an explanation to the quantitative results.

6.6. Future research

This section presents suggestions based on the limitations to this study for consideration by future researchers in the field of healthcare quality. Future researchers should seek to increase the sample size to be used for their studies taking into account current estimated population of the Gomoa East District. There should be enough time allocated for data collection so that there will not be the inclusion of participants within the age of consent. It is anticipated that the provision of a third-party financial support for the researcher or other researchers would enable the conduct of a scale up study in the region and country. That is, with future sponsorship, the researcher could include other health facilities within the Central Region in future studies to provide the grounds for comparison. Furthermore, future researchers should seek to include other districts out of the 261 metropolitan, municipal and district Assemblies outside the Central Region and the 16 regions in Ghana. Additionally,

future studies should seek to apply the qualitative research methodology. This will help to provide explanation as to why respondents provide answers to the questions. It would also be important to adopt a mixed methods approach (qualitative method and quantitative method) in future studies (Leech, Dellinger, Brannagan, & Tanaka, 2010). This will encourage methodological triangulation of the results to be derived where the challenges of each method would be addressed by the other (Bekhet, & Zauszniewski, 2012).



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APPENDICES

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

Appendix A: Participant Informed Consent form

Introduction

I am a student at the School of Public Health, College of Health Sciences, University of Ghana. I am conducting a research on the topic Assessment of Patients' Satisfaction with Outpatient Department Services at the Potsin Polyclinic, Gomoa East District.

This research is in partial fulfillment of the requirement for the award of Master of Public Health Degree. The research seeks to assess factors associated with patients' satisfaction among patients attending the Potsin Polyclinic in the Gomoa East District in the Central. The population of interest involves all patients reporting to the outpatient department of the facility for health care. The rationale behind is to get responses from patients who are well informed and have experienced health care services at the facility.

Procedure

This study will be using a cross-sectional design and a quantitative method to collect data from the patients on their individual (socio-demographic characteristics) factors and the health facility factors that determine their satisfaction with health care services. The questionnaire administration will last for not more than 15 minutes per participant. The period for the entire research will last for five months starting from October, 2021.

Benefits of the Study

You will have no direct benefit from participating in the study. You will not receive payment for participating. However, the results of this study will be an added value for all stakeholders to revise their strategies on patients' satisfaction at the Potsin Polyclinic in general.

Risk of the Study

There are no direct risks associated with this study except that, participants may share some personal or confidential information or they may feel uncomfortable talking about some of the issues outlined.

Confidentiality

All information provided in this study will be secured in a file cabinet and saved on a personal computer. The results will also be available on the University of Ghana's online repository. Other researchers may find and use the data. However, participant's name or any other identifying information will be removed from the data to conform to confidentiality.

Compensation

There will be no compensation packages for respondents or participants, except the benefits to be derived as stated above.

Withdrawal from the Study

Participation in this study is voluntary and participants may withdraw at any time without any penalty. Participants can decide not to participate or to respond to any individual question or all the questions. Participants will be reliably informed, or their legal representatives would

be informed in a timely manner on any available information provided when need be for their continuation or withdrawal. Participant's participation may be terminated if they feel too uncomfortable talking about the subject, become tired, or find the study too intrusive.

Volunteer Agreement

I have read or have had someone read all the above, asked questions, received answers regarding participation in this study, and I am willing to give my consent to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I have agreed to be a participant.

Name of Volunteer

Signature or mark of volunteer **Date**

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

Name of witness

Signature of witness **Date**

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Name of Person Who Obtained Consent

Signature of Person Who Obtained Consent

Date

Contact for Additional Information

If you have any additional questions or complaints please contact:

Mercy Akua Amoah

Department of Health Policy, Planning and Management

School of Public Health, College of Health Sciences, University of Ghana

P. O. Box LG 13

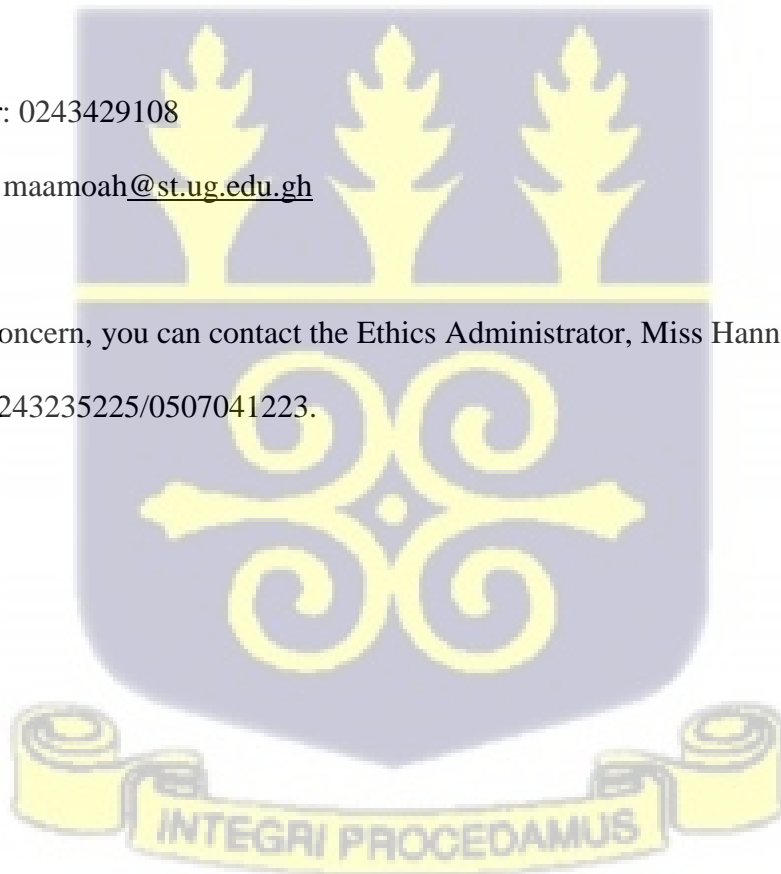
Legon – Accra.

Mobile Number: 0243429108

Email Address: maamoah@st.ug.edu.gh

In case of any concern, you can contact the Ethics Administrator, Miss Hannah Frimpong,

GHS/ERC on 0243235225/0507041223.



APPENDICES

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Appendix B: Questionnaire for patient satisfaction with Outpatient Department Care at the Potsin Polyclinic, Gomoa East District

Introduction

I am a student of the School of Public Health, College of Health Sciences, University of Ghana, Legon, conducting a study to assess patient satisfaction with Outpatient Department Care at the Potsin Polyclinic, Gomoa East District. I will be grateful if you could spend a little of your time to complete or help answer the questions in this questionnaire. There are no right or wrong answers. Any information provided is private and confidential. This study is only for academic purposes. Your participation in this study is entirely voluntary. You are free to withdraw from the study whenever you feel pleased – it will not affect your access to health care in this facility. However, I would be glad if you contribute to the success of the study. Thank you.

Section A: Socio-demographic characteristics

Date of interview.....

Code:

1. Sex:

- a. Male b. Female

2. Age:

- a. 10-20yrs b.21-30yrs c. 31-40yrs d. 41-50yrs e. 51-60yrs

f. 60-70yrs

3. How long have you been a client/patient of the Potsin Polyclinic?

a. < 10yr b. 11-20yrs c. 21-30yrs d. 31-40yrs e. 41-50yrs

4. Educational Background

a. No formal education b. Basic b. Primary c. Middle d. JSS

e. Secondary (Old System) f. SSS g. College i. Vocational

j. Polytechnic k. University

m. others (Please specify)

5. Marital status

a. Married b. Single c. Widowed d. Co-habiting

6. Principal Occupation

a. Student b. Farmer/Fisherman c. Teacher/Lecturer d. Public Servant

e. Civil Servant f. Trader/Artisan / Driver g. Diplomat h. Unemployed

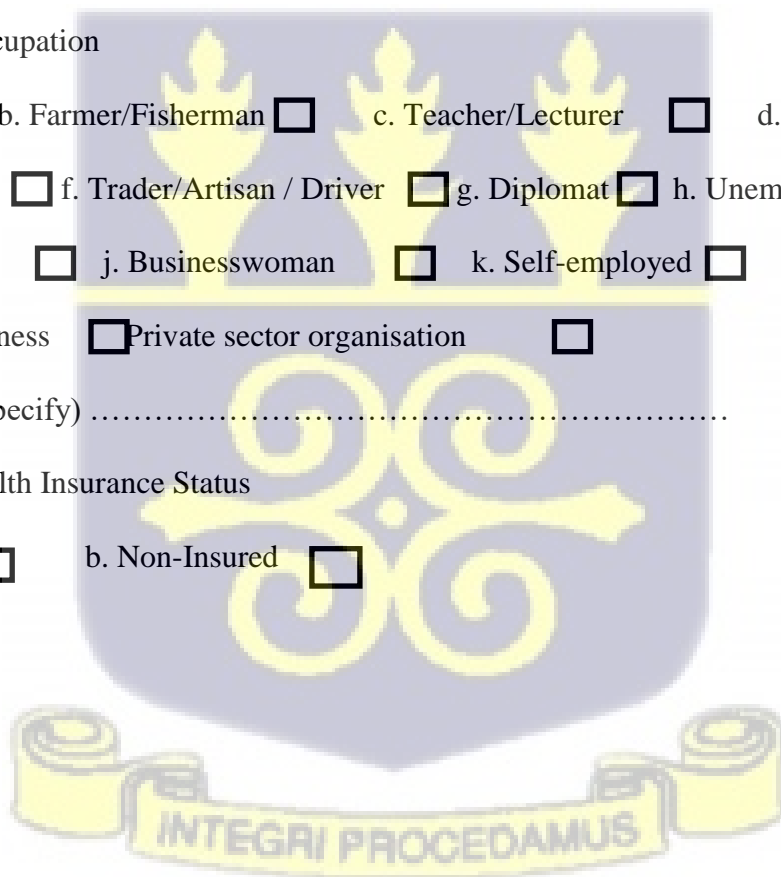
i. Businessman j. Businesswoman k. Self-employed i. SME

m. Private Business Private sector organisation

Other (Please specify)

7. National Health Insurance Status

a. Insured b. Non-Insured



Section B: Health facility factors and patient’s satisfaction [(Short Form Patients Satisfaction Questionnaire (PSQ-18)]

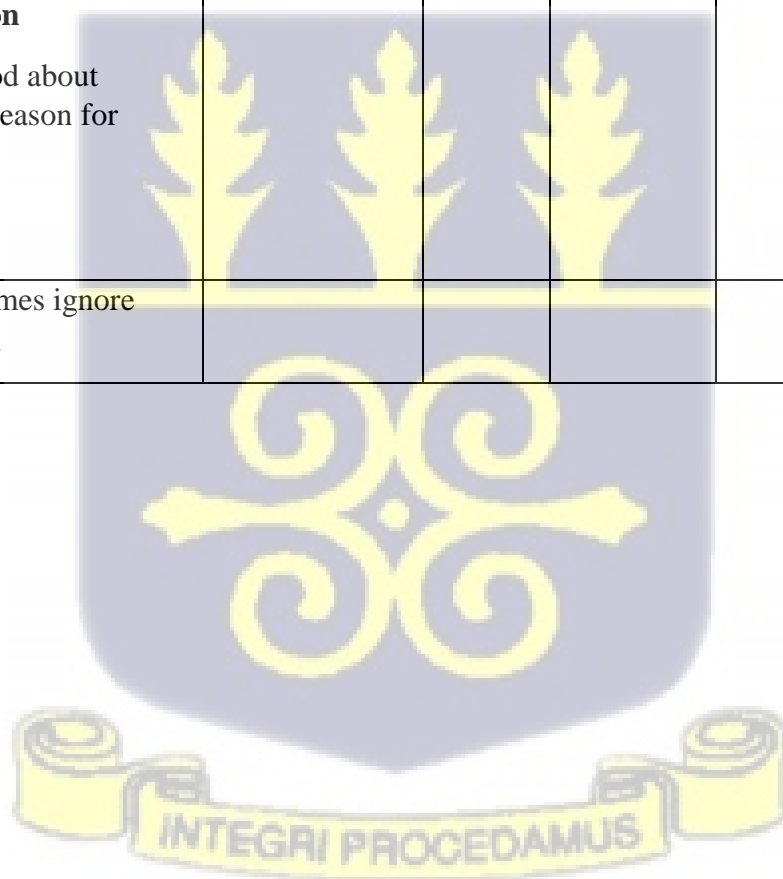
The statements in the following pages contain questions relating to some things people say about medical or health care. Please read each one carefully, keeping in mind the medical care you are receiving now (if you have not received care recently, think about what you would expect if you needed care today). We are interested in your feelings, good and bad, about the medical care you have received.

How strongly do you agree or disagree with each of the following statements?

(Circle one Number on Each Line).

| Variable | Strongly agree | Agree | Uncertain | Disagree | Strongly disagree |
|---|-----------------------|--------------|------------------|-----------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| General satisfaction The medical care I have been receiving is just about perfect | | | | | |
| I am dissatisfied with some things about the medical care I receive | | | | | |
| Technical Quality I think my doctor’s office has everything needed to provide complete medical care | | | | | |
| Sometimes doctors make me wonder if their diagnosis is correct | | | | | |
| When I go for medical care, they are careful to check everything when treating and examining me | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| I have some doubt about the ability of the doctors who treat me | | | | | |
| Interpersonal Manner Doctors act too business-like and impersonal towards me | | | | | |
| My doctors treat me in a very friendly and courteous manner | | | | | |
| Communication Doctors are good about explaining the reason for medical test | | | | | |
| Doctors sometimes ignore what I tell them | | | | | |



How strongly do you agree or disagree with each of the following statements?

(Circle one Number on Each Line).

| Variable | Strongly agree | Agree | Uncertain | Disagree | Strongly disagree |
|--|----------------|-------|-----------|----------|-------------------|
| | 1 | 2 | 3 | 4 | 5 |
| Financial Aspect I feel confident that I can get the medical care I need without being setback financially | | | | | |
| I have to pay for more of my medical care than I can afford | | | | | |
| Time Spent with the Doctor Those who provide me medical care sometimes hurry too much when they treat me | | | | | |
| Doctors usually spend plenty of time with me | | | | | |
| Accessibility and Convenience I have easy access to medical specialist I need | | | | | |
| Where I get medical care, people have to wait too long for emergency treatment | | | | | |
| I find it hard to get an appointment for medical care right away | | | | | |
| I am able to get medical care whenever I need it | | | | | |
| | | | | | |

Thank you.

Appendix C: Ethical Clearance

In case of reply the number and date of this Letter should be quoted.

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE



My Ref: GHS/RDD/ERC/Admin/App 121/2021
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Fax + 233-302-685424
Email: ethics.research@ghsmai.org
18th December, 2021

Mercy Akua Amoah
P. O. Box LG 13 Legon, Accra, Ghana

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

| | |
|------------------|--|
| GHS-ERC Number | GHS-ERC: 044/10/21 |
| Study Title | Assessment of Patients' Satisfaction with Out-Patient Department (OPD) At Potsin Polyclinic, Gomoa East District |
| Approval Date | 18 th December, 2021 |
| Expiry Date | 17 th December, 2022 |
| GHS-ERC Decision | Approved |

This approval requires the following from the Principal Investigator


- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED... 

Dr. James Akazili
(Head, Ethics & Research Management Department)

c: The Director, Research & Development Division, Ghana Health Service, Accra