Patient Satisfaction Outcomes: A Comparison between Public and Private Health Care Services in Islamabad

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DEDICATION

It is the will which credits for the people and it is my desire which is responsible for every effort inside the thesis.

To the one who created me and gave me strength to pass through the lives difficult stage the originator of the universe. After that my loving parents, brothers and sisters who encourage me to accomplish my dream of study at MPhil level.

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ABSTRACT

In contemporary times the hospitals are more concerned with the provision of quality services based on the patient's preferences and the patient satisfaction outcomes. The satisfaction of the patients is majorly driven by the affordability, accessibility and availability of the services, and the patients are more likely to choose a hospital if these criteria meet their expectations. In this study we measure patient satisfaction level for six hospitals, three public and three non-public hospitals, in the twin cities of Islamabad and Rawalpindi. The Primary data collection for this research was done through an adjusted patient satisfaction form (PSQ), by taking 250-300 expected sample size of patients, by using random sampling method for data collection. The questionnaire was categorized into seven portions; namely, general satisfaction (GS), technical quality (TQ), interpersonal aspects (IP), communication COM), financial aspects (FA), time spent (TS) and accessibility/availability (AA). The primarily results have shown that the patient satisfaction was highly ranked (mean=3.03) with a maximum of five for access and availability, interpersonal aspects was the second highest ranked (mean=2.66) in the entire sample. On the other hand, the financial aspects and time spent were lowest ranked, in terms of patient dissatisfaction or lowest satisfaction, with both ranked (mean=1.00) with a maximum five. In the overall finding, the technical quality and access and availability are highly significant as compared to the other items. The qualitative results of this research have shown that the patients highly recommended and suggested to increase medicine stock, improve doctor and staff quality as well as more accommodating attitude towards patients. The improvement in the above mentioned areas and through overcoming the shortcomings mentioned the expectation of patients is likely to increase patient satisfaction significantly. Based on the findings of this research, it is recommended that the hospitals should improve in the specific areas; of sitting area of hospital, cleanliness of washroom, cleanliness of drinking water (general satisfaction), time spent, financial aspects, interpersonal aspects and communication, where patients have reported with dissatisfaction, so as to improve the delivery of the services as per the patient's satisfaction. Lastly there should be regular satisfaction audit of the hospitals.

Key Words: Hospital Service Delivery, Patient satisfaction, Patient Satisfaction Questionnaire (PSQ),

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ACRONYMS

OPD----------Outpatient Department

PSQ----------Patient Satisfaction Questionnaire

AA----------Accessibility/Availability

TQ----------Technical Quality

GS----------General Satisfaction

TS----------Time Spending

FA----------Financial Aspects

IA----------Interpersonal Aspects

CHAPTER I

INTRODUCTION

1.1 Background

In the current period one of the main concerns of hospitals is the provision of quality services considering preferences of patients on the basis of patient satisfaction outcomes. The satisfaction of the patients is majorly driven by the affordability, accessibility and availability of the services, and the patients are more likely to choose a hospital if these criteria meet their expectations. Many countries such as France, UK and similarly other European countries have been using patient satisfaction as a necessary criterion to evaluate hospitals, in order to promote the good medical environment. Through these policies many nations improved their quality of life and patient's satisfaction. Therefore, improvement of patient satisfaction in Pakistan in general and specifically for the present study for Islamabad deserves more attention of researchers for this important cause.

According to the Torres and Guo (2004), patient satisfaction has become an important manifesto of health care services as it represents an expected result of medical care. In the modern world, patient satisfaction has become a very important aspect of health attention; however, it is by no definition a modern phenomenon as this aspect of health care has been there for a long time (Diva et al, 2012). The importance of these issues; related to patient satisfaction, give clear evaluation of dissatisfaction provides consistent information (Marin-et-al, 2003). Satisfaction is accepted to be attitudinal reaction to value decisions that patients build regarding their clinical experience (Kane et al., 1997). It is important to measure health care service quality and find out how patients perceive each item that need to be improved in case they are dissatisfied with it. The literature on patient satisfaction will help understand this phenomenon and will give some background about the patient satisfaction with health services.

Due to the importance of service quality mainly in health care sector of Pakistan, this study is targeted to measure the difference between public and private hospital service quality perception of patients. However, there is very little literature and research on such comparison in the context of Pakistan.

Patients in general appear to be more satisfied with treatment at private hospitals than with treatment at general government/public hospitals. Unfortunately, very limited research has been done on comparison between public and private hospitals in Islamabad. Although some studies done on

comparison of service facilities, but, they are done from the perspective of the hospital medical staff and without taking into account the patients' perceptive. Since, such studies only interviewed medical staff and neglected the patients' views; therefore, such studies provide a very naïve and one-sided perspective.

There are some qualitative studies done without using Likert scale, with limited questions to inquire about patient's perceptions regarding the services delivered by the hospitals. The significance of this research is that it differs from the previous studies in a way that it entailed face to face interviews of the patients by using patient satisfaction questionnaire form at Likert scale. This PSQ has 45 questions included patient characteristics and the hospital or medical supplier characteristics. This study covered some of the all patient characteristics regarding accessibility, availability and affordability of the health services. The analyses show that the reporting of dissatisfaction has an understandable behavior reflecting mutually the patient's point of satisfaction and service quality. So, with the interviews of the patients directly and using the PSQ this study has aimed to highlight the aspects of the service delivery that the patients are not satisfied with and will also provide recommendations on how the overcome them.

New instruments and strategies help to evaluate patient opinion about services which is a major issue in developing nations. With the United Kingdom Patient's Charter and therefore the audit of the national health survey, helping the need for suppliers of hospitalization to assess and improve the standard of consideration they provide, and to keep expanding their use of polls and surveys. This trend, be that as it may, has still not got approval in developing countries like Asian country, wherever vast majority of the 'patient satisfaction studies' still focus on specific areas like the emergency department, day care surgery or restorative practice sections of the hospital. A study is thus necessary to survey patients' views of general terms of inmate care provided to them throughout admission. Such a study turns out to be a lot of crucial and consequential with restricted budget appropriation to the health sector in Asian country and along these lines the incompetence of the many patients to bear the cost of expensive treatment modalities. Accordingly, there is a need of any legislature to prioritize spending and this study hopes to fill this gap by production of data which will encourage administrators and doctors to spot and address off variables within the care they provide.

Patient satisfaction systems are necessary element of many policy level results. Which are Changing in patient care styles, and this have been appreciated in developing countries as well. Many studies

identify that patient care is a complex, multidirectional issue that needs to be seen toward from a number of viewpoint (Diva et al, 2012). Patient's needs changes continually however; hospitals recognize these needs and convey changes in like manner to satisfy patients.

1.2. Health System in Pakistan:

Pakistan lies within the Eastern Mediterranean region of the world with a populace insight. It is the sixth largest nation of this world by population. In 1978, Pakistan's government established a detailed nexus of primary health care facilities to promote availability of the fundamental health care facilities with a core objective of providing equitable, effective and accessible health care services at a quality that individual can afford.

Health supply framework in Pakistan is of blended sort including public, private and the casual health care sector. As per the National health survey that was directed in year 1998, the use of public primary health care facilities isn't over twenty percent and some 79% of the populace uses personal health care division that has trained personal health care administrations (49%) and non-formal health care sector including with (30%) hakims, Unani healers, herbalists and fake Doctors. There are far reaching explanations for less usage of public sector health care services and discontent from government health care facilities, among them impediment of doctors and paramedics attributable to employee's absence, short arrangement of important medication and alternative instruments are major ones.

Economic condition, very less consumption as a percentage of GDP on the health sector and this close by illiteracy, cultural components, absence of patient satisfaction and trust on the Government health care facilities, poor structure and sanitation, physical unreachability, absence of political motivation, assurance and public health policy may clarify the potential causes for severe underutilization of public health care facilities.

Out of the various reasons of underutilization of public health care facility, patient satisfaction is one that has not been investigated to bigger point in Pakistan. Though it is not a substitution, anyhow there is no inclination of incorporation of patient suggestions and suggestions within the conveyance of services per patient expectations by the legislature as such. Studies has shown decreased patient happiness with the government healthiness care facilities and exaggerated use of personal health care facilities across all income groups of people. Studies are available in Pakistan to see the patient

satisfaction with convict, patient and emergency health care facilities. But studies did at the native level in numerous elements of nation presented variable that described level of patient satisfaction with health care services. No knowledge is obtainable at the national level to represent the quantity of patient satisfaction by responsiveness domains (Naseer-et-al, 2012).

Pakistan statistics (2009-2010) shows that Pakistan is the sixth largest inhabited country in the world. According to the constitution of Pakistan, provision of best health care facilities to the public is the responsibility of federal and provincial governments. The elected governments are constitutionally bound to legislate policies to make sure that each person gets the desired medical treatment. In Pakistan Majority of the general public hospitals situated within the urban areas particularly in major cities of and it had been advanced by range of many number of urban peoples (Arzoo and Hajra, 2005), however, still these facilities inadequate even to meet the requirements of the individuals living in urban areas. Health care conditions in Pakistan are getting worst and worst day by day because the health care sector is badly ignored by the government.

1.3. Problem Statement

One of the important factors of quality health care is considered to be patient satisfaction with health care services. Although study on patient satisfaction has developed as a norm in many developed countries, in countries such as Pakistan the concept of patient satisfaction is still comparatively ignored. Patient satisfaction is a key indicator of quality of health care and it is commonly used as a measure of health service performance (Gill and White. 2009). In this study, we measure dissimilarities of adverse significances across hospitals, under the assumption that the hospitals with the lower rates of opposing events are constructing better patient results. There is a dearth of research in the Pakistan on the measurement of services quality in general, and in measuring hospital's service quality in particular. Very little work has been done to assess the quality of hospitals service in Pakistan to check the patient satisfaction with respect to the hospital service (Shabbir et al, 2010). The success of health care organizations depends upon patients' satisfaction. Health care administrations can attain Patients' satisfaction by providing better healthcare services; keeping in view the patient's expectation and continuous improvement in the healthcare services (Zineldin, 2006). Satisfied patients are easier and more rewarding to care for take up less physicians and staff time and are more complaint. Improve patient satisfaction decrease the length of patient's visits and wait time reduce treatment cost and increase patient volume.

Statistics provided in the Economic Survey of Pakistan (2014 - 2015) showed that the federal government spent 0.42% of GDP i.e. Rs 114.2 billion on health sector in order to make its population healthier. In the last few years health expenditures have increased more than two times; from Rs. 25 billion in 2001 - 2002 to Rs. 60 billion in 2007 - 2008.

Therefore, this research study is directly related to the patient and health status of patient who are taking health care services they will provide their satisfaction level. In these particular areas there is limited research probably due to unavailability of data especially in the content of Pakistan there is limited research on patient satisfaction. Patient satisfaction surveys and patient complaints data may become easy and integrated elements of clinical practice improvement progress.

1.4. Objectives of the Study

1. To measure patient satisfaction in three non-public and three public sector hospitals of Islamabad utilizing an adjusted (PSQ) patient satisfaction form.
2. To look at the patient satisfaction outcomes through health care services provider setup.
3. To evaluate hospital care factors or characteristics determining the patient satisfaction outcomes.
4. To evaluate socio demographic factors role in determining the patient satisfaction outcomes.

1.5. Research Hypothesis

In researcher hypothesis main variables are education, age, residence, gender, household income, insurance and type of hospital.

H_o: education, age, residence, gender, HH income, insurance and type of hospital do not affect the general satisfaction level[1]

H_1: Education, age, residence, gender, HH income, insurance and type of hospital do affect the general satisfaction level.

[1] By this statement, we mean that individual variables will have zero effect on the general satisfaction level. This statement would be checked statistically, if statistically, null hypothesis is rejected, alternative will be held true.

1.6. Central research question:

The main variable of interest during this study is patient satisfaction. That is additionally dependent variable; it's recorded by asking the major question on satisfaction level with the health service they're receiving.

How might you rate your satisfaction level with the health service you got?

Satisfaction was measured on a five points scale with the following order Strongly satisfied, Satisfied, Neither satisfied nor dissatisfied, dissatisfied, strongly dissatisfied.

1.7. Research purpose

The basic reason for the study was to find out the patient's satisfaction through health care characteristics and patient's characteristics within the context of healthcare organization. This may be a theoretical contribution to know however the link is affected between the patient and health care service supplier. This study additionally investigated the satisfaction level of patients with nonpublic and public sector hospitals; and the way they understand the service magnitudes. It allowed us to test if the stated factors affect patient satisfaction or not. The objective was to study the patient satisfaction from non-public and public hospitals and to research the delivery of health care service quality dimensions so as to understand issues and shortcoming within the health sector. Because of high competition in health care sector, it is tough for public health care suppliers to attain and maintain the required standards and attain high performance.

1.8. Locale of the Study

Researcher selected Islamabad (capital city) to study the patient's perspective about the services in hospitals whether patients are satisfied or not. The selection of this area by researcher is justified by the fact that due to better facilities of health, patients from all over Pakistan rush towards the capital city Islamabad and researcher can have opinions of patients of diverse backgrounds. The estimations of patient's satisfaction through patient satisfaction surveys have assisted the structure pioneers to incorporate patient point of view as, how to form a culture wherever quality services are a crucial strategic goal for health care facilities.

1.9. Significance of the Study

The patient satisfaction is at the middle of my inquiry that Involves satisfaction of the patient from the health services. It supports the connection of health service supplier and also the health service taker or patient. As a result of the higher supplier for patients mechanically patients will be happy with supplier characteristics and patient characteristics. This analysis so may be a support for two characteristics; health care supplier characteristics and patient characteristics.
Patient satisfaction has developed as more and more basic health outcome.

Physicians and staff regularly invest a lot of time responding to complaints and dealing with non complaint patients, which adversely impacts service efficiency. This Research study is an innovative because it contributes the analysis of patient's satisfaction or perception about health services. This study has a wide spread implication for developing countries getting better health service. Also the study findings will provide considerable awareness for the patient satisfaction from the poor and populated developing countries. The explanations behind patient dissatisfaction are likewise investigated, which will help health services leaders to recognize key target areas for enhancing patient satisfaction. This study is also significant in its scope because the health service is directly engaged with the patients.

In Pakistan most of their population exists in rural areas and little proportion resides in urban areas (Imran et al., 2006). The population in rural areas particularly and also the populations in geographically less developed regions to some extent are with lesser facilities, particularly health care facilities as majority of the general public and personal hospitals are situated in bigger cities (Irfan et al., 2011). Due to the growing importance of service quality mainly in health care sector of Pakistan, this study is targeted to measure the distinction between public and personal hospital service quality in Pakistan. However, very little support from the literature to for such a comparison exits.

The results of the study will be helpful and might contribute to the health care organization to boost their overall performance within the areas like service quality dimensions, health characteristics, patient characteristics which are the key factors in our purpose of read. These factors will lead the organization in obtaining high level of patient satisfaction.

1.10. Limitations of the Study

The study has some limitations which offer some directions for future analysis. The information was gathered from hospitals placed in Islamabad solely therefore future analysis may extend these findings to alternative cities in Pakistan to check their generalizability as capital of Pakistan that they giving improved services so they reach the necessity of their patient. Behavior of patient is often totally different in alternative components of country. However, it must to be unbroken in mind that patient's beliefs, perceptions and expectations cannot be totally captured in a very form. Therefore, the utilization of qualitative analysis on quantitative ways in future studies would offer a stronger understanding of the complicated issue of quality within the health care sector.

1.11. Organization of the study:

Chapter one encompasses of the introduction, the second chapter two will present the literature, third chapter presents research frameworks which contains conceptual and theoretical framework. The fourth chapter contains methodology and data of the study, fifth chapter is about presentation of results and then conclusion and some policy recommendations.

Chapter II

REVIEW OF LITERATURE

This chapter covers review of literature related to patient satisfaction and public and private health care services.

2.1. Patient Satisfaction:

Satisfaction is to be a one dimensional concept in such a manner that a single factor can generate both satisfaction (in the case that everything goes well or works properly) and dis-satisfaction (when things do not go well or do not work properly). There are many factors which can create this dissatisfaction. The reasons are not only limited facilities within hospital services but also the huge influence of affordability, accessibility and availability of health care centers. The analyses showed that the statement of dissatisfaction has an understandable behavior reflect the patient's level of satisfaction and his/her intention to return to the health care. So these effects findings gave opportunity to overcome the negative aspects of the dissatisfaction cases.

2.2. Public and Private Health Care Services:

Hospital is an institution which provides health facilities like diagnosis and treatment of different diseases. The idea of a hospital was introduced by Romans who specified a building for serving the people who are diseased ones. Generally, hospital consists of different departments like out-patient department, emergency department. and operation theatre. Also in hospital there are different fields include surgery, medicine, gynecology, and pediatrics and trauma center. In Pakistan, there are two types of hospitals. One is group of government hospitals and other is private hospitals. Both types of hospitals have different advantages and disadvantages. People choose and prefer the hospital depending upon their health issue and affordability.

2.3. Measurement of Patient Satisfaction

National Literature on Patient Satisfaction

The evaluation of the elements services provided in Pakistani hospitals (public and private) and their contribution to patient satisfaction regarding quality of service provider. The analysis based on survey of patient inn public and private hospitals in is Islamabad Pakistan. Primary data

investigation is very important for study because of the different attitudes and psychologies of patients observed in developing countries such as Pakistan (Shabbier et al, 2010).

A patient satisfaction study was conducted in 2004 -2005 in a secondary level hospital in Karachi Pakistan. Results of this study showed that capacity building workshops arranged during phases of survey for staff of the hospitals to work on improving patient satisfaction. This activity gradually increased the level of satisfaction of patients with the outpatient health services from the over last year period (Shaikh et al, 2008).

In the absence of data, the National Health Service is often criticizing for failing to meet their needs. This study conducted in Pakistan about the quality of the health care available to ethnic minority groups. Study based on cross sectional survey with stratified sample. It's concluded that Pakistani patient reported surprisingly high levels of satisfaction with health care services. The message is that high levels of satisfaction with services among ethnic minority groups are potentially achievable (Madhok et al, 1998).

The study which is conducted in Karachi that researcher often felt that developing countries need to improve their quality of health care provision. Cross sectional study carried out at some major tertiary care hospitals. It concluded that its required considerable improvement in order to improve health care provision. Efforts should be made to get regular feedback from the patients (jameel, 2007).

The study conducted in Pakistan on patient satisfaction, a comparison between public and private hospitals of Peshawar. Its objective is to measure patient satisfaction in two private and three public sector hospitals using a modified patient satisfaction questionnaire, also to compare composite scores in seven different categories of patient satisfaction. Methodology was using a convenience sampling with cross sectional comparative study. The study concludes that patient in private sector hospitals are more satisfied than those in public sector hospitals (Khattak et al, 2012).

A comparison of service quality between private and public hospitals: empirical evidence from Pakistan study done in 2011. Its objective based on to compare the quality health care services delivered by the public and private hospitals to gain patient satisfaction in Pakistan. Service quality instrument was used through questionnaire. Conclusion given by the study is private

hospitals are delivering better quality of services to their patients as compared to public hospitals (Irfan et al, 2011).

International Literature

A study about patient satisfaction with health services related conducted in China determined the causes of dissatisfaction of patients regarding health facilities. The study used data from household survey by the statistics of China in 2008. Regression applied on data for retained results which concludes the gap between patient predictions about services. Patient preferences and satisfaction among groups are classified into six social groups by socio economic status including education, income, and type of employment (Shen et al, 2010).

A report study was conducted in USA 2003, about conceptualization applications and methodological issues associated with measurement of treatment satisfaction in gastro esophageal reflux disease. The assessment of this treatment satisfaction is mostly limited. The treatment satisfaction measured in two or one question modified at Likert scales. Methodology use the attitude responses scales and reliability testing. This also gives information for monitoring patients outcome in clinical practices but the current status of measurements needs to be improving (Revicki, 2003).

The relationship between patient satisfaction and background factors such as age, gender, health status and pain, using background factors to create less ranking in comparison of patient satisfaction between medical specialties. It was conducted in Sweden with primary data study, data gathered from inpatient care at hospitals. Main outcome measures the patient satisfaction index score. Concludes that medical specialties background factors emphasizes the importance of including background factors in-patient satisfaction analysis in order to obtain less biased comparisons (Rahma visit, 2001).

A research on patient satisfaction through quality health care services was conducted in China for the patient satisfaction assessments of various major aspects of medical services, delivery, patient' trust in health delivery system in various kinds of hospitals. Data collected from statistics bureau in 2008, for results using probity models were established to analyze data. It concludes that patient satisfaction were different among low level public hospital, high level public hospital and private hospital (Tang, 2012).

International research on patient satisfaction on health care has rising richly in the past three decades. A little research has been conducted about health care related patient satisfaction in China. This examines factors and patient characteristics also accessibility of care and how much patient satisfied from different areas, rural and urban. A cross sectional survey was used to gathered data or information through questionnaire from hospitals. The results conclusion in this study was rural area patients are greatly satisfied from health care because of the insurance scheme newly started in rural area (Yan et al, 2011).

A critical review of patient satisfaction through review the patient satisfaction literature, meta-analyses, analysis its theory and use, then to present evidence for perceived service quality as a separate and more advanced construct. The study use methods that the application development of patient satisfaction along with studies addressing the conceptual and methodological deficiencies associated and the current service quality. It's concluded this way that results standardization with has low reliability and uncertain validity. Results use interchangeable and perceived service quality which is conceptually different and superior (Liz and White, 2009).

A study related satisfaction and dissatisfaction with destination attributes and its influence on overall satisfaction and the intention to return. This study estimates the impact of the satisfaction and dissatisfaction based evaluations on both the tourists. This can be achieved by evaluations of different destination attributes on an ordinal scale. In this study collected some of the tourists negative or unsatisfactory experiences need to be defined within a specific context of evaluation. Findings shows that experiences of satisfaction and overcome the tourist overall dissatisfaction and negative perceptions tied to over commercialization overcrowding and environmental deterioration considerably lower the visitor's intention to return to the destination (Taberner et al, 2001).

The study done on satisfaction with care among patients with diabetes in two public health care systems. Its objective is to compare patient satisfaction among adults with diabetes treated in veterans' affairs health care system with the satisfaction of patient treated in a country funded health care system. It also examines satisfaction differences in the process of patient care. Cross sectional telephonic survey of patients from outpatient clinic were used. This study finds that veteran's affairs patients with diabetes were more satisfied with health care than were country patients (Piette and Jhon, 1999).

Comparing patient satisfaction in public and private hospital, study that take profiles of patients based on the same variables and investigates whether significant differences do exist among the clusters and also based on socio demographic characteristics of respondents and whether these cluster do differ in term of behavioral intentions. The study using structured questionnaire with cluster analysis and econometric test. It's concluded the cluster with highest positive emotions was reported to higher level of satisfaction so this evidence is much stronger when a private service provider rather than a public one (Pinna et al, 2012).

The study about the importance of patient satisfaction measurement and electronic survey: methodology and potential benefits. It based to find out customer satisfaction which increasingly important for modern business and health care organization. The study used scientific methods and techniques and qualitative and quantitative methods. Its concludes that patients are satisfied with health services in clinically relevant as satisfied patients are more likely to comply with treatment take an active role in their own care, to continue using medical care services and stay within a health provider and maintain with a specific system (Ilioudi et al, 2013).

A study on the quality of health care and patient satisfaction", published in international journal of health care quality assurance. Researcher had some objectives that to examine the major factors affecting patient's perceptions of cumulative satisfaction and to address the question whether patients in Egypt and Jordan evaluate quality of health care similarly or differently. A conceptual model including behavioral dimensions of patient physician relationships and patient satisfaction has been developed. Concerns about three hospitals in Egypt and Jordan. Questionnaire form was designed to achieve the research objectives. The study concluded that patient's satisfaction with different service quality dimensions is correlated with their willingness to recommend hospital to others. (Zineldin, 2006).

Measuring service quality and patient satisfaction with access to public and private health care, study has been done. Its main purpose is to explore patient's satisfaction with access to treatment in both the public and private sectors in London. To achieve these objective researcher using qualitative and quantitative methods were employed to determine patient's level of patients. Its results show that access experiences among public and private care users. Public as opposed to private health care use experience, unsatisfactory outcomes in relation to service climate factors (Dason et al, 2010).

The study conducted in the Malta about comparing public and private hospital care service quality. Study applies the principles behind the SERVQUA model and uses donabedian,'s frame work to compare Malta's public and private hospital care service quality. Using framework, developed questionnaire on Likert type scale to achieved objectives. The study finds that private hospitals are expected to offer a higher quality service, particularly in the hotel services but it was the public sector that was exceeding its patient's expectations by the wider margin (Callaghan, 1998).

Another study conducted in the turkey on comparing public and private hospital care service quality. Purpose is to examine the differences in service quality between public and private hospitals in turkey through SERVQUAL model, using questionnaires on Likert type scale for date collection from outpatient. Outcome of the study that satisfaction with doctors and reasonable cost was the biggest determinants of service quality in the public hospitals (Antony et al, 2006).

The study on service quality of private hospitals, the Iranian patient's perspective has been done in Iran. Its purpose to determine the different dimensions of the service quality in the private hospitals of Iran and evaluation the service quality from the patient perspective. This study is a cross sectional study which is conducted in 2012 in Tehran, Iran patient randomly selected from eight private general hospitals. The study questionnaire was the SERQUAL questionnaire. It finds the significant difference between the expectations scores based on socio demographic characteristics of patient. Also significant difference between the perception scores based on insurance coverage, average length of stay and patient's health condition on discharge (Arab et al, 2012).

Work satisfaction professional nurses in South Africa: a comparative analysis of the public and private sectors. It presents a national study that compares and contrasts satisfaction levels of nurses in both public and private sectors. This was a cross sectional survey with self-administered questionnaire. Also using univariate and bivariate statistical models were used. Outcome is that nurses in the more rural provinces, those intending to change sectors and those more likely not to be in their current positions within the next five years were also more likely to be dissatisfied with all facets of their work (Rubin and Pillay, 2009).

The study has been done in Pakistan on determinants of patient's satisfaction with health care system critical review. Their objective is to find out the determinants of patient satisfaction from

existing literature in Pakistan using the data base of Medscape, Medline, Pak medinet and PubMed. Its highlights the complex and interrelated determinant of patient satisfaction with health care system in Pakistan (Naseer et al, 2012).

Health care service quality, a comparison of public and private hospital in Northern Cyprus. To test the dimensions of the SERVQUAL instrument in the health care industry, to assess the service quality to identify the service quality dimensions that play important role on patient satisfaction.

Factor analysis revealed a three factor solution namely reliability confidence, empathy and tangibles. Also data collection through questionnaire. The study concluded that gap analysis showed that private hospitals have smaller gaps than public hospitals in all three service quality dimension (Direktor et al, 2010).

Chapter III

RESEARCH FRAMEWORK

This chapter is about conceptual framework and Theoretical framework.

3.1. Theoretical Framework:

We follow Ferrerr-i-Carbonell and Frijters (2004); patient satisfaction model. Based on previous theoretical studies, such as Pan, Liu and Ali (2015) our research is conceptualized as the results of a difference between personal expectation and perceived performance of outcome. This is expressed under the framework of the utility theory of economics as follows:

Let $S^*_{ij} = U_2 (PC_i, HC_j) - EU_1 (HC_j)$ ---------- *(i)*

Where

S^*_{ij} is latent variable indicating patient satisfaction for patient.

$_i$ is treated patients and health care service supplier is denoted by $_j$.

U_2 denotes the perceived utility of patient once receiving medical aid services.

This utility principally depends on the supplier characteristics (HC_j) and therefore the socio demographic characteristics of the patients (PC_i).

EU_1 represents the expected utility that is scaled as average utility values obtained from all patients within the sample space who suffered from a similar wellness and received treatment from health care service supplier.

The basic difference of health characteristics and patient characteristic, researcher observed that satisfaction results while not health characteristics whether or not it's higher division between them or not. Certain studies (e.g., Quintana, 2006; Schoenfelder et al., 2011) observed that S^*_{ij} can be regenerated into a linear function of the managing variables matrix:

$$S^*_{ij} = X_{ij}\beta + \varepsilon_{ij} \text{ ---------- } (ii)$$

Where;

X_{ij} is the set of patient characteristics ***(PC)*** and health care supplier service characteristics ***(HC).***

$_i$ is treated patients and health care service supplier is denoted by $_j$. β area unit regression

coefficients, and ε is an error term.

3.2. Conceptual Framework:

Conceptual framework for patient satisfaction helps to emphasis and explains what to measure and what kind of variables to take for comparison of health services between public and private. This framework provides the appropriate calculation of health services. This one delivers assessable and strong valuation about convenience, availability and affordability of health care facilities. This would be covering all the conventional effectives of patients in restricted sample magnitude.

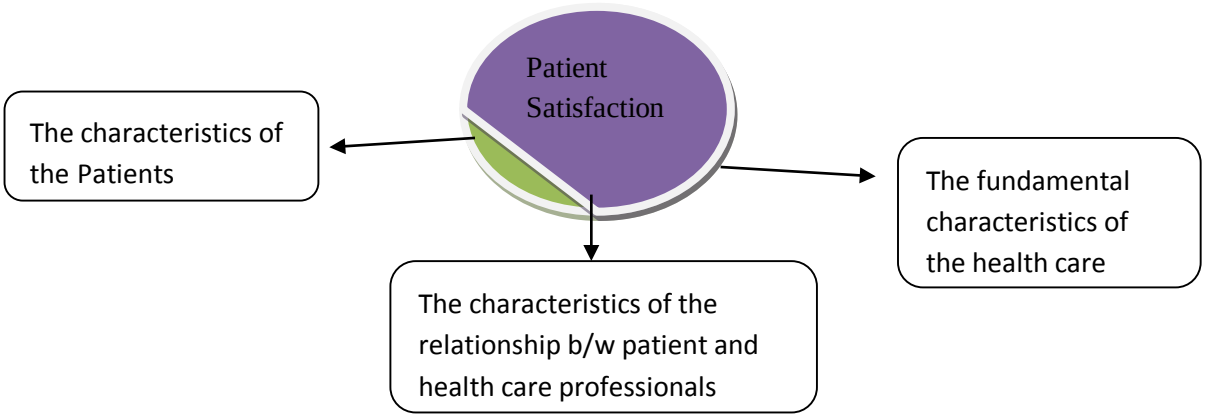
Patient satisfaction is analyzed and evaluated in different ways and techniques. Some of them are staff opinion about patient during stay in hospital, analysis of lama cases, media coverage, community response, structured questionnaire based patient self-assessment at discharge, suggestion box, repeat visit to hospital, exit interviews, visitor book and evaluation proforma patient relative during stay in hospital etc. We have used structured questionnaire based on Likert scale for patient's interview for the present study.

Hypothetical studies of patient satisfaction are showed since the Sixties. Among the in understanding literature, five representative theories were recognized: Fox and Storms. (1981) deliberate the discrepancy and transgression theory, whereby patient satisfaction is that the results of communication between patient's perspectives of what establishes practical quality health care and therefore the provider's making standard health care. The expectation worth of theory of Linder. (1982) targeted on socio-psychological causes and declared that patient satisfaction was judged by patient's previous expectation, personal belief, and values of health care. Equally within the causes and elements theory, Ware et al. (1983) claimed that patient satisfaction could operate of patient personal preferences and their expectations from health care. On alternative hand, Fitzpatrick and Hopkins (1983) proposed a multiple model theory, and that they highlight that prospect should be socially facilitate, reflect the health areas of the patient and therefore the degree to that disagreeable

health and health care profound the patient's personal sense of person. Donabedian (1980) planned the health care value philosophy stating that satisfaction is an integral element of a three divided structure of the medical market, the method of vision of health care, and therefore the result of the action.

Characteristics that influence the patient satisfaction, satisfaction of a patient by the provider health care based on a number of factors.

Fig: 1 (characteristics of patient satisfaction)



Patient satisfaction is a section that has customary a treatment quantity of attention and there for lots of analysis has been done there on. The studies carried at worldwide on this subject have typically conclude that patients are most satisfied with the care they received and with the doctor patient statement level and are least satisfied with cleanliness and management (Iqbal, 2013). Supported by these readings an inclusive model of the patient satisfaction method was developed to try to include all influences on satisfaction, thereby providing a complete outline for discovering the relations between variables that have an effect on the analysis of patients.

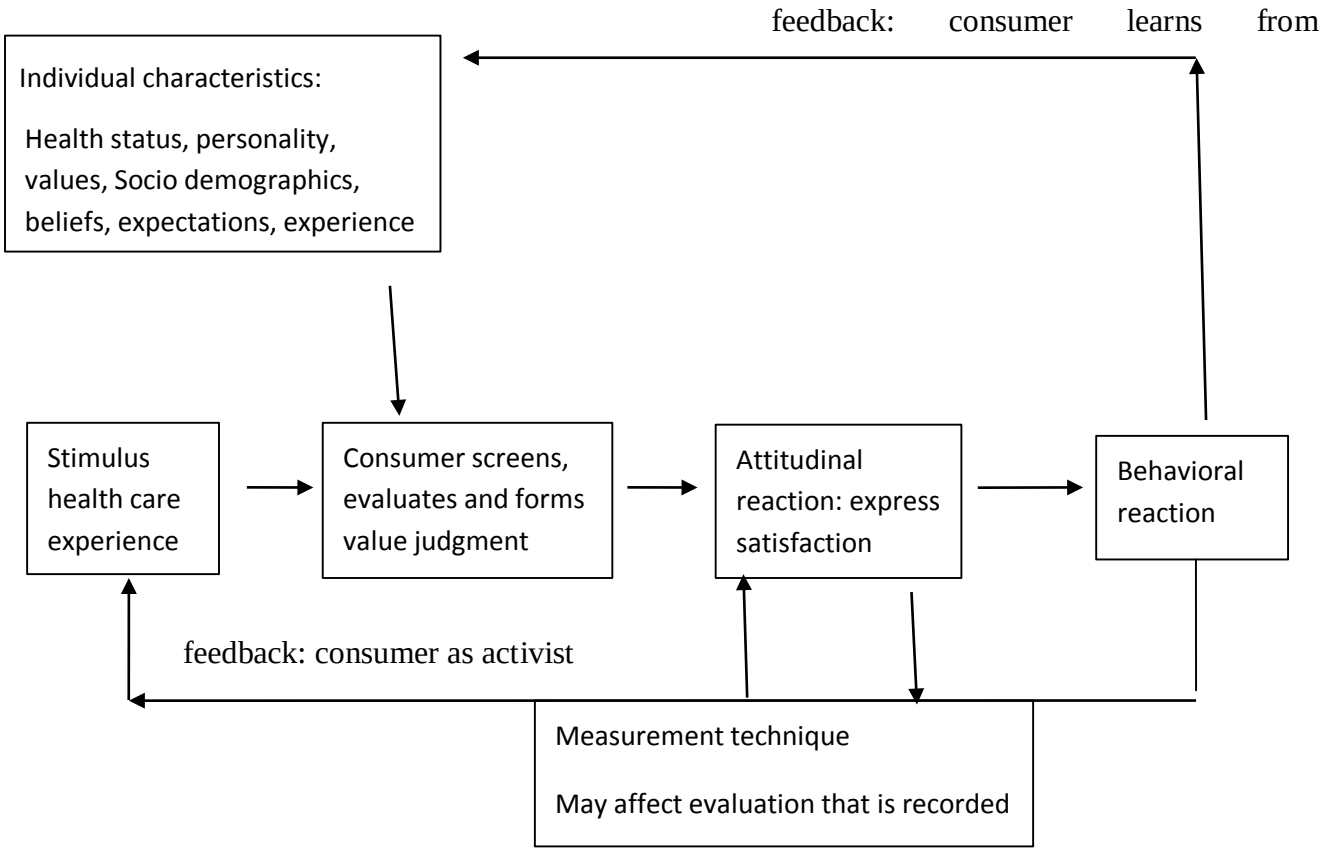


Fig 2: comprehensive model of satisfaction with health care.

(Source: adopted from strasser and davis 1991. strasser et al 1993 and crow 2002)

Although numerous studies have examined the causes of patient satisfaction in developed countries, but sign from unindustrialized countries remain rare. The findings provided large understanding into the analysts of patient satisfaction from the occupied developing countries. The causes for patient unhappiness are also explored, which helped health service decisions producers classify main goal area for refining patient satisfaction. According to supplier linked influences, including the characteristics of suppliers, the price of health care, types of services available, quality of infrastructure, and the general value of care, have also important analysts of patient satisfaction (Geron et al., 2000; Walsh and Lord, 2004).

Chapter IV

METHODOLOGY and DATA

This part portrays research strategy and the information. This incorporates research techniques, respondents and inspecting strategies, instruments utilized for information accumulation and factual treatment of information.

4.1. RESEARCH METHODOLOGY

4.1.1. Descriptive and Inferential Research Methods

The present study uses both the descriptive methods and inferential methods of research. Descriptive methods basically describe information and attributes about the populace or wonder considered. Elucidating techniques answer such inquiries as who, what, where, when, why and how. Inferential measurements apparatuses utilized as a part of this examination is for trying of speculation set in the introductory chapters. We have used OLS regression estimation and analysis in making the conclusions.

4.2. RESPONDENT AND SAMPLING PROCESS

4.2.1. Respondent/Target Population of the Study

Unit of the analysis is patient response. Sample for the analysis is taken from the hospital patient. Whereas form of patients or respondent is the i. admitted patients, ii. Daily visitors and iii. Patients who visit once every week for seeking health service are studied in this research. We have chosen sample space from the whole population of health services market in Islamabad/Rawalpindi to be 3 non-public and 3 public sector hospitals from Islamabad/Rawalpindi (capital of Pakistan and sister city) for data collection. Essential information was assembled through self-regulated standard surveys from the objective populace i.e. Patients who are taking health facilities from hospitals situated in Islamabad/Rawalpindi.

4.2.2. Sample Size

In this research the sample size for this analysis was 250-300 patients as respondents. Ideally this should have been a statistical exercise of identifying the total no of admitted and OPD patients in these hospitals, but since due to limited resource and time limitations we are only able to pick theses sample from respective hospitals. This can be taken as a study limitation.

4.2.3. Sample Procedure

We have selected the sample through convenience sampling technique. It is applied for collecting the questionnaire based data of patients who are taking health services from three (3) public sector hospital and three (3) private sector hospitals in Islamabad/Rawalpindi. The data collection is not by intervention rather randomly selected patients both from the in-patient and outdoor patient facilities. Therefore, it's a convenience sampling method being applied for this study.

4.3. DATA COLLECTION

Data was gathered through self-administered questionnaire. Persistent fulfillment form patient Satisfaction Questionnaire (PSQ), a self-controlled overview instrument intended to be utilized by general in population based studies. The PSQ contains fifty-five similar type questions that capture attitudes towards the note able characteristics of doctors and medical aid services (technical and social skills of suppliers, waiting time for appointments, workplace waits, emergency care, prices of care, coverage, convenience of hospitals, and alternative resources etc.) and satisfaction with care generally.

4.3.1. Primary Data

Essential information in examination contributes unique information that is watched or straightforwardly gathered. This exploration is about "Patient Satisfaction Outcomes: A Comparison between Public and Private Sector Health Care Services in Islamabad/Rawalpindi Hospitals" where it gives measureable and strong assessment about openness, availability and affordability of health care facilities measured through a standard PSQ based questionnaire. A total number of 300 questionnaires were filled from the patients whom were taking health care facility in Twin cities of Pakistan. The qualitative interviews were conducted from 20th June 2016 to 30th June 2016. The interviews were taken face to face associated and structured by a standard interview procedure.

4.4. STATISTICAL TREATMENT

Researcher used the observational, factual and the operational outline to pursue their study objectives. The observational design here gives information about on the conditions faced by the patients and how they afford, avail and access to the health facilities. Whereas we had composed the basic instruments for gathering information, then in the statistical we had provided the

analysis of the gathered information and data through an analysis which is preplanned. In operational design we had used the statistical techniques' used in data analysis. As mentioned earlier we had selected the sample from the patients randomly using convenience sampling method. The research is descriptive and inferential research including survey and facts findings. Survey of the hospitals was conducted to explore satisfaction of the patient using the health facilities and also to find the relationship between dependent and independent variables. In this research the dependent variable was patient satisfaction and the independent variables were health care supplier level information and socio demographic characteristics of the patient.

4.4.1. Econometric Technique:

Based on literature (Ali, 2005) used the ordered logit probit because of the valid estimates of psychological assessments as mentioned in literature (Ferrer-i-Carbonell and Frijters, 2004). Therefore, our analysis is mainly based on the OLS results. Using the equation ii, which is mentioned previous chapter, we've got here conferred the econometric model for our study.

$$Y = \alpha \pm \beta(X) \pm \mathcal{E}\ldots\ldots\ldots\ldots$$

Here β_i indicates coefficient of variables, allowing different estimation of independent variables.

X indicate matrix of independent variables identified from literature describe as below.

Y indicates Patient_ Satisfaction types which is dependent variable. Patient Satisfaction ***is*** measured in 5 scales, 1) strongly dissatisfied 2) dissatisfied 3) neither satisfied or dissatisfied 4) satisfied 5) strongly satisfied)

X matrix includes such as ***A*** indicates Age and an independent variable, measured through patients having ages in the following group:

1) 18-30 2) 31-45 3) 46 & above

E is denoted for Education also independent variable, measured through patients being classified as, 1) Primary 2) Middle 3) Matriculation 4) Intermediate 5) Graduate 6) or above 7) Illiterate 8) Literate

R is Residence independent variable it is measured through 1) Rural residence 2) Urban residence/local

G denoted to Gender also an independent variable, scaled into 1) Male 2) Female

HHI denoted to household monthly income and its measurement scaled is 1) 0-25000 2)26000-50000 3)51000-75000 4)76000-100000 5) above

I for Insurance variable, also an independent variable measured by 1) Panel 2) self-insurance 3) through donations 4) out of pocket

H for form of hospital or type of hospital and its scaled 1) Public hospital 2) Nonpublic hospital $\mathcal{E}$

= Error

4.4.2. Variables description:

Patient related physical characteristics, this survey followed previous observed study and recorded patient's general information like ages, genders, education level, household income, type of residence, rural or urban, insurance status. Where insurance was an essential variable measuring access to care, and it could assume an imperative part in affecting the kind of wellbeing assets accessible to patients. Hence we accepted that patients with insurance would be more fulfilled. With respect to provider related factor, both hospital level factors and health care market factor were included in model. Clinic level qualities incorporated the proprietorship kind of medicinal offices (public vs private), and hospital rank (primary, secondary, tertiary). House hold wage was utilized as often as possible as a part of investigations of industrials associations to speak to the business sector focus in an industry, and it is the most regularly utilized variable to show the level of rivalry (Capps et al. 2010)

4.5. TECHNIQUE FOR DATA COLLECTION

In the present study information was collected through self-administered questionnaire, used with key informants, which were patients who were taking health care from hospitals. Researcher's own observations were also used for data collection. During the analysis observation will be helpful to search out some factors for a comprehensive and descriptive analysis and to check the strength of the aggregated respondent's results. Key informants were those who had worked within the hospitals and engaged with health care services. Utilizing structured interviews and questionnaire was indispensable as it helped us to collect expounding information by providing several important questions. Some closed ended questions along with an open ended question guided to prepare

correspondingly for the structured questionnaire in order to make sure that the same themes will be covered in each questions. From closed ended questions we developed open ended and prompt questions in order to get detail information from the respondent as and when required.

4.6. RELIABILITY ESTIMATION OF SCALE ITEMS

The basic formula used for Cronbach Alpha test is:

$$\alpha = N.\acute{C} / V + (N-1).\acute{C}$$

Where N: the number of items

Ć: the average inter-item covariance

V-Bar: the average variance

For reliability testing, minimum 10% of sample size was collected from different hospitals. Researcher obtained raw data for pre-test study of research which interpret and processed by the Statistical Package of Social Sciences (SPSS) program. If the reliability value exceeds 0.60, it is considered to be reliable. According to the result shown in 4.1 table, the value 0.85 is greater than 0.60, so the results assure that this data has considered to reliable for further research.

Table 4.1: (Reliability statistics)

Cronbach's Alpha	No of items
0.85	**7**

4.7. Ethical Consideration:

Ethical consent was requested from and approved by the hospitals (three public and three private from Islamabad/Rawalpindi) (Appendix II).

Patients sharing was volunteer with the declaration of privately and the freedom to remove at any time (Appendix I).

CHAPTER V

PRESENTATION OF RESULTS

This section depicts the presentation, examination and understanding of the essential information gathered through poll from the objective respondent. This part clarifies the unmistakable insights (recurrence, rate, mean and standard deviation) and theory testing.

5.1. Descriptive Statistics:

A total of 300 patients had been visited, out of which at least 38 patients were admitted and 112 patients who visited once a week in public hospitals. On the other hand, 27 patients admitted and 123 patients visit once a week in non-public hospitals or private hospitals, Table # 1 shows the summary and statistics of the important variables in the example.

5.1. Table

		Gender		
		Male	**Female**	**Total**
Age	**18-30**	**12.3%**	**25.7%**	
	31-45	**14.3%**	**16.7%**	
	46 & above	**14%**	**17%**	**300**
Education	**Primary**	**2.7%**	**4%**	
	Middle	**4.7%**	**6%**	
	Matriculation	**8.7%**	**12.3%**	
	Intermediate	**4.7%**	**12.3%**	**300**
	Graduate	**8%**	**7.3%**	
	Above	**5%**	**2%**	
	Illiterate	**5.7%**	**14%**	
	Literate	**1.3%**	**1.3%**	
Employment	**Yes**	**19.7%**	**8.7%**	
	No	**21%**	**50.7%**	**300**

As we have visited 300 patients among them there were 122 males and 178 females. If we categorize these patients with respect to their age then we have 114 patients in range of 18 to 30, 93 patients in range of 31 to 46 and 93 patients of age above 46. On the other hand, if we look at the education level of these patients then we have 20 patients with basic primary education, 32 patients had middle level education, 63 with matriculations, 51 patients with intermediate level, 46 were graduate, and 21 patients were post-graduates. Besides that, 59 patients were illiterate and 8 patients were literate but they were not educated through formal education system. 28.3 percent of the patients which is 85 out of 300 were having employment and the called independent and remaining 215 were unemployed and they were called dependent patients on their families.

5.2. Descriptive Statistics of Scale Items:

5.2. Table

Items	Min	Max	Mean	S.D
GS	1	3	2.45	0.53
TQ	2	3	2.47	0.44
IA	2	3	2.66	0.47
COM	1	3	2.52	0.5
FA	1	1	1	0.0
TS	1	1	1	0.0
AA	1	4	3.03	0.59

The above table present the mean and standard deviation of the all the attributes, computed to the dependent variables' patient satisfaction. All the variables on a scale of 1-5 (1- strongly dissatisfied, 2- dissatisfied, 3- neither satisfied or dissatisfied, 4- satisfied, 5- strongly satisfied).

In terms of patient satisfaction accessibility/availability (AA) was highly ranked (mean = 3.03), interpersonal aspect (IA) was close to high ranked (mean = 2.66). In terms of patient dissatisfaction or lowest satisfaction was financial aspect (FA) and time spent (TS) where both were lowest ranked (mean = 1.00).

5.3. Correlation results:

5.3. Table

		Gender	Age	Education	Residence	Total monthly household income	Insurance	type of hospital
Gender	Pearson Correlation	1	-.111	.006	.040	-.047	.013	.000
	Sig. (2tailed)		.055	.916	.485	.413	.824	1.000
	N	300	300	300	300	300	300	300
Age	Pearson Correlation	-.111	1	.147*	.021	.059	-.033	.085
	Sig. (2tailed)	.055		.011	.712	.305	.573	.144
	N	300	300	300	300	300	300	300
Education	Pearson Correlation	.006	.147*	1	-.136*	-.061	-.004	.079
	Sig. (2tailed)	.916	.011		.019	.291	.948	.170
	N	300	300	300	300	300	300	300
Residence	Pearson Correlation	.040	.021	-.136*	1	.099	-.029	.027
	Sig. (2tailed)	.485	.712	.019		.086	.613	.635
	N	300	300	300	300	300	300	300
Total monthly household income	Pearson Correlation	-.047	.059	-.061	.099	1	.118*	.188**
	Sig. (2tailed)	.413	.305	.291	.086		.042	.001
	N	300	300	300	300	300	300	300
Insurance	Pearson Correlation	.013	-.033	-.004	-.029	.118*	1	.272**
	Sig. (2tailed)	.824	.573	.948	.613	.042		.000
	N	300	300	300	300	300	300	300
type of hospital	Pearson Correlation	.000	.085	.079	.027	.188**	.272**	1
	Sig. (2tailed)	1.000	.144	.170	.635	.001	.000	
	N	300	300	300	300	300	300	300

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Above table show that strength and direction for correlation between variables. For this sample researcher used statistically pearson correlation because of the continues scale variables. The

value (-0.11) gender and age shows negative correlation, types of hospital and gender value (0.0) shows positive correlation, insurance and gender value (0.013) shows positive correlation, education and gender has positive correlation also residence. Negative correlation between total household income and gender. The above results shown that if the value greater than the level of significance, it means this correlation isn't statistically significant. It means it just occurred by chance. The values which are less than 0.05 than there is no significant correlation. So less than level of significance, we cannot say that this evidence correlation exists in whole population, while it's on sample evidence.

5.4. Regression results:

5.4. Table

Variables	GS	TQ	IA	COM	FA	TS	AA	PSQ*
Constant	**14.4**	**11.4**	**25.99**	**25.16**	**3.18**	**3.164**	**22.568**	**110.95**
Gender	**1.23*** **	**0.68*** **	**0.47*** **	**1.06*** **	**-0.16**	**0.124*** **	**1.28*** **	**4.70*** **
Age	**-0.114**	**-0.301**	**-0.326**	**-0.213**	**-0.05**	**-0.002**	**0.034***	**-0.97**
Education	**-0.160**	**0.016***	**-0.048**	**-0.179**	**-0.017**	**0.008***	**-0.267**	**-0.64**
Residence	**1.04*** **	**0.237*** **	**0.098** **	**0.234*** **	**0.367*** **	**-0.124**	**1.587*** **	**3.44*** **
HH income	**-3.001 E-006**	**1.775E-006**	**-2.350 E-006**	**5.223E-007**	**-1.307 E-006**	**2.915E-007**	**-3.036 E-006**	**-7.105 E-006**
Insurance	**-0.109**	**-0.089**	**0.017***	**-0.068**	**-0.02**	**-0.015**	**0.113*** **	**-0.36**
Hospital	**5.78*** **	**1.618*** **	**3.957*** **	**3.588*** **	**0.596*** **	**0.584*** **	**6.288*** **	**22.41*** **
R2	**0.374**							
F- statistics	**24.97**[2]							

Above table shows the results from regressing the general satisfaction[3] on gender, age, education, residence, total monthly HH income, insurance and type of hospitals. The results indicate that Gender, Residence, and type of hospital positively affect the general satisfaction level. All of these variables have coefficients that are statistically significantly different from zero. Under the

[2] Where 7 items are defined as, GS= general satisfaction, TQ= technical quality, IA= interpersonal aspects, COM= communication, FA=financial aspects, TS= time spending, AA=access/availability. All together PSQ is patient satisfaction questionnaire.

[3] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 8 questions related to the GS, so cumulatively, maximum value for GS could be 40 (in case all 8 questions are given rank 5 by the respondent))

variable gender, male have a higher satisfaction level (on Likert scale, male have 1.23 units more satisfaction level than the female). On the same Likert scale for GS, urban people have higher satisfaction level i.e. 1.04units on the scale of satisfaction. The change in type of hospital, i.e. from public to nonpublic yields a coefficient of 5.8 which means that GS increases by 5.8 units on the Likert scale of 40.

The technical quality[4]: Results indicate that Gender, Education, Residence, monthly HH income and type of hospital positively affect the technical quality level. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have a not much higher satisfaction level then female (on Likert scale, male have 0.68 units more satisfaction level than the female). On the same Likert scale for TQ, urban people have no much higher satisfaction level i.e. 0.23 then the other units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 1.6 which means that TQ increases by 1.6 units on the Likert scale of 20.

The interpersonal aspects[5]: Results indicate that Gender, Residence, Insurance and type of hospital positively affect the interpersonal aspects level. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have not much higher satisfaction level then female (on Likert scale, male have 0.47 units more satisfaction level than the female). On the same Likert scale for IA, urban people have not higher satisfaction level i.e. 0.09 units on the scale of satisfaction. The change in type of hospital, i.e. from public to nonpublic yields a coefficient of 3.9 which means that IA increases by 3.9 units on the Likert scale of 40.

The communication[6]: Results indicate that Gender, Residence, HH income and type of hospital positively affect the communication level. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have a higher satisfaction level (on Likert scale, male have 1.06 units more satisfaction level than the female). On the same Likert scale for COM, urban people have not much higher satisfaction level i.e. 0.2

[4] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 4 questions related to the TQ, so cumulatively, maximum value for TQ could be 20 (in case all 4 questions are given rank 5 by the respondent))

[5] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 8 questions related to the IA, so cumulatively, maximum value for IA could be 40 (in case all 8 questions are given rank 5 by the respondent))

[6] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 8 questions related to the COM, so cumulatively, maximum value for COM could be 40 (in case all 8 questions are given rank 5 by the respondent))

units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 3.6 which means that COM increases by 3.6 units on the Likert scale of 40.

The Financial aspect[7]: Results indicate that Residence and type of hospital positively affect the financial aspect level. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have less satisfaction level (on Likert scale, male have -0.1 units less satisfaction level than the female). On the same Likert scale for FA, urban people have less high satisfaction level i.e. 0.3 units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 0.6 which means that FA increases by 0.6 units on the Likert scale of 1-5.

Time spent[8]: Results indicate that Gender, education, HH income, and type of hospital positively affect the time spent. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have a less high satisfaction level (on Likert scale, male have 0.1 units more satisfaction level than the female). On the same Likert scale for TS, urban people have less satisfaction level i.e. -0.1 units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 0.5 which means that TS increases by 0.5 units on the Likert scale of 1-5.

The access and availability[9]: Results indicate that Gender, Age, Residence, Insurance and type of hospital positively affect the general satisfaction level. All of these variables have coefficients that are statistically significantly different from zero. Under the variable gender, male have a higher satisfaction level (on Likert scale, male have 1.3 units more satisfaction level than the female). On the same Likert scale for AA, urban people have higher satisfaction level i.e. 1.6 units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 6.3 it means that AA increases by 6.3 units on the Likert scale of 50. If compare the all the patient items that results shows TQ which is technical quality and also AA access and availability are highly significant than other items. At other side GS and FA has highly insignificant of variables relationship.

[7] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 1 questions related to the FA, so cumulatively, maximum value for FA could be 5 (in case all 1 questions are given rank 5 by the respondent))

[8] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 1 questions related to the TS, so cumulatively, maximum value for TS could be 1-5 (in case all 1 questions are given rank 5 by the respondent))

[9] (measured on the Likert scale, values range is 1 to 5 and its values are the product of addition of the responses on the 10 questions related to the AA, so cumulatively, maximum value for AA could be 50 (in case all 10 questions are given rank 5 by the respondent))

5.5. Qualitative results:

The PSQ form entailed single qualitative question to get suggestions from patients for improvement within and outside the hospitals. The patients responded that they were currently facing problems in the hospital in availing the desired health services. In the meanwhile, they highly suggested and recommended in improvement of the following areas: the increase in medicine stock, prohibition of mobile usage during patient checkup, the quality of the credentials of the hired doctors and other staffs, an overall improvement in the attitude of doctors and other staff in dealing and handlings patients, increases the number of beds for patients, more attention and possibly free checkup for needy people. They also brought to the notice that some hospitals have not any proper place for worship, and suggested to display the map of hospitals in the entrance. Besides that there should be proper ventilation system, parking area, last but not the least, some patients suggested that some hospitals laboratory results have reported to be incorrect, so there is a need to improve quality and services of hospital's laboratory services. Thus their response resulting that they are facing financial issues and smooth availability of service. If the concerned authorities overcome these suggestions, then it can create positive impact and big improvement in the overall health service delivery in hospitals.

5.6. Education and Hospital

Table 5.6

Education	Public Hospital	Non Public Hospital
Primary	12	8
Middle	23	9
Matriculation	28	35
Intermediate	29	22
Graduate	16	30
Above	7	14
Illiterate	28	31
Literate	7	1
Total	150	150

The above table shows that the comparison of public and private with the education. The results show that mostly more educated patients were visit the nonpublic hospital graduate 30, above 14. The middle 23, primary 12 were mostly visiting the public hospitals.

5.7. Insurance and Hospital

Table 5.7

	Public Hospital	Non Public Hospital	Total
Panel	84	41	125
Self-insurance	10	16	26
Through Donations	4	5	9
Out of Pocket	52	88	140

The above table shows the result of insurance and type of hospital. The highest 84 patients were panel patient and visit the public hospital.88 patients were spending from out of pocket for seeking the health services from nonpublic hospital.

This study reveals the results of patient satisfaction outcomes in Islamabad through comparison of public and private hospitals. It investigates the specific reasons for unsatisfied patients which indicate areas of improvement in the current health care system. By using PSQ, this study further measures the OPD patient's perception about health services. It needs to be noted that our analysis only concentrated on the regression analysis of scale items (patient satisfaction) and the independent variables. In the analysis results find that access/availability and technical quality were highly significant in both descriptive and regression results. It shows that patients were mostly satisfied with these scale items. Patients in private sector hospitals were more satisfied than those in public sector hospitals. However, in qualitative results patients were satisfied with treatment but not satisfied with system of hospital in public hospitals. Both patients in public and private were equally unsatisfied about the time spending with doctors (khattak, 2012). Private hospitals delivered better quality of services to their patients as compared to public hospitals (Irfan, 2011). As our analysis in scale items patients responded with strongly dissatisfied with time spending. As discussion of these factors or scale items easily explains why patients unsatisfied from the GS, TS, FA, IA, and COM.

It also explains why these issues were insignificant with reasons. Perhaps patient's satisfaction can be improved by working on these scale items in hospitals. Established a proper fund raising system, staff quality training programs, and increase medicine stocks for enhancing patient satisfaction.

CHAPTER VI

CONCLUSION

In this study an empirical analysis and comparison is made of the patient satisfaction outcomes between public and private health care services in hospitals of Islamabad and Rawalpindi. The methodology of the study entailed both descriptive and exploratory approaches of study and the results and analysis was drawn accordingly.

The research has examined satisfaction level of outpatient, representing services as well as perception on quality of scale. This study is concerned with the effects of different variables on patient satisfaction; like, general satisfaction, technical quality, financial aspects, access and availability, interpersonal aspects, time spending, communication and on the other hand education, residence, gender, age, insurance, household income and type of hospital represented the independent variables in the study.

A total number of 300 patients consented to cooperate for this research and participated in filling the questionnaires, which helped to conclude the results. Out of the 300 patients interviewed 38 patients were admitted and 112 patients who visit once a week in public hospitals. On the other hand, 27 patients who were admitted and 123 patients visit once a week in non-public hospitals or private hospital. On the same Likert scale for AA, urban people have higher satisfaction than rural peoples, level of i.e. 1.6 units on the scale of satisfaction. The change in type of hospital, from public to non-public yields a coefficient of 6.3 which means that AA increases by 6.3 units on the Likert scale of 50. The change in type of hospital, from public to non-public yields a coefficient of 0.5 which means that TS increases by 0.5 units on the Likert scale of 1-5. The change in type of hospital from public to non-public yields a coefficient of 3.6 which means that COM increases by 3.6 units on the Likert scale of 40. On the same Likert scale for GS, urban people have higher satisfaction level i.e. 1.04 units on the scale of satisfaction. The change in type of hospital, i.e. from public to non-public yields a coefficient of 5.8 which means that GS increases by 5.8 units on the Likert scale of 40. TQ which is technical quality and also AA access and availability are highly significant than other items. At other side GS and FA has highly insignificant of variables relationship.

An overall evaluation of services is noted at public and nonpublic hospitals through patient satisfaction, patients are facing many common issues and problems during accessibility,

availability and affordability of health care services. Most highlighted and frequently suggestions by patients were the increase in the stock of medicine in hospitals, improvement of staff and nurse's behavior and medical trainings, a long duration of appointment for checkup and cleanliness and hygiene of certain physical premises, such as washrooms and clean drinking water.

Policy Recommendations

The use of patient satisfaction as a necessary record to evaluate hospitals has been a common and necessary practice in many developed countries like France, UK and many others European countries, in order to promote efficient and standard health services delivery. These policies and practices have helped these developed countries in significant improvement in patient's satisfaction with the health services and also in overall improvement of the general quality of life.

In many developing countries, like Pakistan, these practices are almost non-existent and the overall health sector requires significant improvement with regard to service delivery based on patient's satisfaction. In Islamabad, although some of the private hospitals have maintained their service quality, but, overall health sector and especially the government hospitals need improvement and over sight. The researcher has suggested and recommended that somehow hospital need to implement the PSQ form (patient satisfaction questionnaire) method with the use of international scale of satisfaction (likert scale) in the hospital which is very helpful to improve quality services and the satisfaction of the patients.

The results show that Access and Availability and Technical Quality are more significant than other General Satisfaction; like, Time Spending, Financial Aspects, Interpersonal Aspects and communication. So, this research recommends that hospital need to be improve General Satisfaction, Time Spending, Financial Aspects, Interpersonal Aspects and Communication, where patients are not satisfied at specific areas in hospitals. As patients suggested that mostly patients are not able or afford the cost of hospital so make a fund raising system for those people who are not able to pay.

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APPENDIX I

This questionnaire is designed for study about "**Patient Satisfaction Outcomes: A Case Study of Comparison between Public and Private Health Care Services in Islamabad".** The questionnaire is a requirement as partial fulfillment of the degree of MPhil in Health Economics, (PIDE) Pakistan Institute of Development Economics.

This survey is for educational purpose only. Your answers will be highly appreciated.

Thank you for your cooperation.

Questionnaire

Instructions: please fill or tick (√) the one that best matches with your opinion.

Patient no/questionnaire no ----------

Name of patient ----------

Hospital code ----------

City ----------

Type of hospital

1)Public hospital 2) Nonpublic hospital

Level of health care

1)Primary 2) Secondary 3) Tertiary

Enumerator code ----------

Date ----------

Time ----------

Demographic characteristics

1. Type of patient/ type of visit 1) Admitted 2) Visit once a week
2. Gender 1) Male 2) Female
3. Age 1) 18-30 2) 31-45 3) 46 & above
4. Marital status 1) Married 2) Single
5. Employee 1) Yes 2) No

   If yes name of the industry unit----------

6. Are you dependent 1) Yes 2) No
7. Education 1) Primary 2) Middle 3) Matriculation 4) Intermediate
   5) Graduate 6) or above 7) Illiterate 8) Literate
8. Residence 1) Rural residence 2) Urban residence/local
9. Status of the house
   1) Owned by you or someone in the household?
   2) Rented for money
   3) Official/company provided?
10. Type of house 1) Kacha with wood 2)Pakka with wood 3)Pakka with cemented
11. No of rooms ----------
12. Total monthly household income ----------
13. Monthly expenditure on health ----------
14. Mode of transport used 1)Personal vehicle 2) taxi 3) public transport 4) other----------
15. How far away is your home from the hospital 1) <2 km 2) 2-5 km 3) >5 km
16. Insurance 1) Panel 2) self-insurance 3) through donations 4) out of pocket
17. How many people are currently living in your household (including yourself)----------
18. What is your relationship with the person insured/secured ----------
19. For how long you are using this facility/ no of visits in a month ----------

Items of patient satisfaction

Questions	Ranks
1.Hospital is easily approachable from your living place	
2.Outside signage available, aiding patients to find their way to the OPD	
3.Staff was polite and help full to serve patients at the reception desk	
4.Waiting area was good in size and has proper sitting arrangement	
5.Waiting area is clean and airy	
6.I found ease in having a seat for waiting to see a doctor	
7.Temperature of waiting area was acceptable	
8.I am usually kept waiting for a long time when I have to be examined by doctor	
9.Clean and separate toilet facility for staff and patients	
10.There is enough supply of Clean drinking water for patients	
11.Cleanliness of office in which the medical examination took place	
12.When I go for medical care they are careful to check everything when treating and examining me	
13.sufficient time was devoted by doctor for the examination	
14.Doctor gave respect for patient privacy during the examination	
15.Doctor treat me with respect	
16.Doctor shows willingness to listen to anything I said to him	
17.Doctor inform me about my health condition	
18.Doctors are familiar with my most recent medical history	
19.My doctor knows about changes in my treatment that another doctor recommended	
20.Sometime doctor use medical terminology without explaining what they mean	
21.Doctor guide me about the dosage of the medicine properly	
22.Doctor made sure that I understand dosage	

23.I am satisfied with the quality of medicine being provided by the hospital	
24.It is easy to get medicine from the hospital	
25.Doctor told me to come for the next follow up with exact date/time	
26.Attitude and conduct of other member of hospital staff during my examination was good (nurses, ancillary staff)	
27.It is easy for me to get appointment for radiology and laboratory examination	
28.I feel confident of choosing day and hour for the appointment to perform the radiology and laboratory examination	
29.I am usually kept waiting for a long time for the radiology and laboratory examination	
30.I found it easy to approach radiology and laboratory examination room	
31.Radiology and laboratory examination rooms are comfortable	
32.Radiology and laboratory staff's attitude is helpful and polite	
33.Radiology and laboratory staff examined patient first comes first serve basis	
34.My radiography and laboratory examination was fast, painless examination	
35.I am overall satisfied with the hospital visit to the OPD	
36.I am very satisfied with medical care I receive	
37.Whenever I bring under five child to the hospital his or her weight has been monitored	
38.I got general health care education and guidance about weight of the child	
39.Doctor gave me take away written material about general health care	
40.I feel insured and protected financially against all possible medical problems.	

41. Do you have any suggestion that would help in improving the services of the hospital?

Codes for levels/ranks:		**Codes for hospitals:**	
Strongly dissatisfied	01	(pub) Pakistan institute of medical sciences	01
Dissatisfied	02	(pvt) Shifa international hospital	02
Neither satisfied or dissatisfied	03	(pvt) Bilal hospital	03
Satisfied	04	(pvt) Hanif hospital	04
Strongly satisfied	05	(pub) Federal government service hospital	05
		(pub) Holy family	06

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May 27, 2016

TO WHOM MAY CONCERN

I am pleased to certify that Ms. Abida Bano Registration no. 03/MS-HE/PIDE/2014 is working on his thesis titled "Patient Satisfaction Outcomes: A Case Study of Comparison between Public and Private Health Care Services in Islamabad" for the completion of her M.Phil. in Health Economics from Department of Health Economics, Pakistan Institute of Development Economics. She will be carrying out primary and secondary data collection. It would be much appreciated if all kinds of support for data collection and data (if required) may be extended to her so that she can complete her thesis in a befitting and timely manner. Please note that all the data/questionnaire based information will be kept under strict confidential control and will not be used/shared for any other purpose besides the thesis.

In this regard for any further reference and query, department can be contacted. Best

regards,

Dr. Nadeem Ahmad Khan

Head, Department of Health Economics