

AN EXAMINATION INTO THE RELATIONSHIP BETWEEN THE SERVICES PROVIDED BY THE OPD WITH THE DIMENSIONS OF SERVICE QUALITY

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ABSTRACT

This paper attempts to find out the relationship between the services provided by the OPD with the dimensions service quality service quality of the OPD. In other words, the impact of perceived quality of physical facilities, Physician services and technology based service encounters are being checked on the service quality where the dimensions of SERVQUAL have been studied. A data of 300 respondents were approached in the various OPDs situated in NCR of India wherein around 283 filled responses were being used for the data analysis. The data was collected from a well-drafted questionnaire developed considering the tested scales. It was found that all the hypotheses have been accepted and it can be pointed out that the physical facilities have an impact on the measurement of the service quality similarly the Physicians services also impact the service quality and further the newly added variable namely technology based services also has an impact on the dimensions of service quality.

Keywords: *SERVQUAL, IT-Enabled services, OPD, Perceived service quality.*

INTRODUCTION

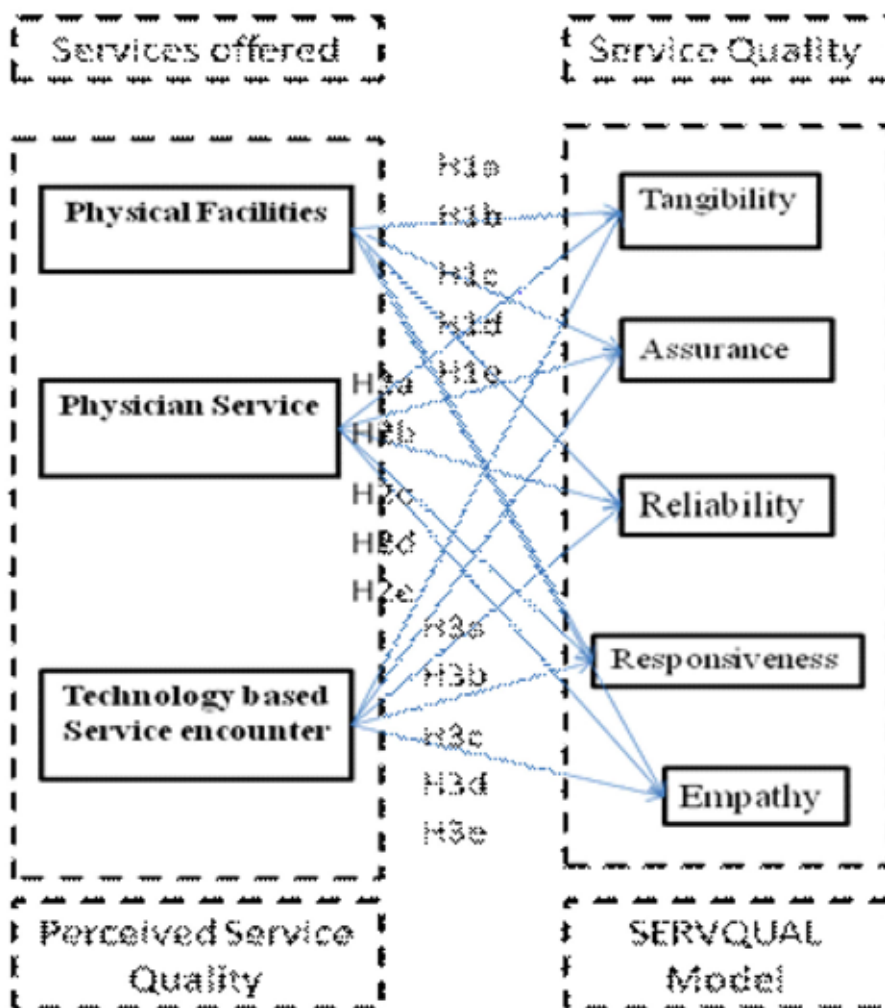
World Health Organization's (WHO) constitution defines health as "a state of complete physical, mental and social well being and not merely the absence of disease or infirmity" (Kühn & Rieger, 2017). Necessarily, health has to be defined from a practical point of view and therefore, it has been defined according to life expectancy, infant mortality, and crude death rate, etc. Healthcare is not an isolated concept; the study or implementation of an effective healthcare system catering to a population cannot be carried out in individuality. It is a complex interplay of various factors including Economy, Education and Environment that need to be considered together. Sustaining the system is hence not just the responsibility of the healthcare workers but the entire society at large that, directly or indirectly, at some point in time, comes in

contact with healthcare(AlJaberi et al., 2020; Khan et al., 2018).

This paper attempts to find out the relationship between the services provided by the OPD with the dimensions service quality service quality of the OPD. In other words, the impact of perceived quality of physical facilities, Physician services and technology based service encounters are being checked on the service quality where the dimensions of SERVQUAL have been studied.

CONCEPTUAL FRAMEWORK

The present paper is being done with an intention to find out the relationship between the various dimensions of services provided by the OPD with the dimensions service quality. The paper has been divided into three parts, the initial part deals with the introduction and conceptual development, next the paper highlights the keys issues in research methodology and the subsequent part deals with analysis discussion



and scope for future research. The proposed model is as under:-

REVIEW OF LITERATURE

In today's highly competitive healthcare environment, health care industries increasingly realize the need to focus on service quality as a means to improve their competitive position.

(Woloshin et al., 2005) pointed out in his study that the quality of the services being offered patient satisfaction has evolved as an important tool for measurement of health care performance of health care service provider. It is considered as one of the most important quality indicators since it is a voice of patient that counts as it reflects the response to experienced interactions with the care givers. (Risser & Batey, 1975) considers patient satisfaction as the degree of convergence between the expectations the patients have of ideal care and their perception of the care they really get. (Karaca & Durna, 2019) proved that Out-department patients were more contented with the "Concern and Caring by Nurses" and less contented with the "Information You Were Given." (Al-Abri & Al-Balushi, 2014) significantly discussed the association of dependent and independent dominant traits towards by and large patient satisfaction in addition to its influence on the quality enhancement process of healthcare organizations. (Asnawi et al., 2019) illustrated that even though hospital image did not have any consequences on the patients' loyalty, but it does influence the patients' satisfaction. Besides, patients' satisfaction had a big impact towards patients' loyalty. This implied that the Service Quality in the hospital had an influence on the satisfaction of the patients and his loyalty.

Therefore, better service quality of the hospital would impact patient's satisfaction ensuring better hospital image. A recent study on Covid (Deriba et al., 2020) revealed that patient satisfaction has increased with the improvement in the quality of service in hospital through maintaining social distancing and providing alcohol or sanitizers.

(Manzoor et al., 2019) suggested that the physician's behavior towards the patients significantly regulate the impact of health care services amongst the satisfaction of patients. The overall opinions about the satisfaction level of patients for the availability of health services in the hospitals were good. The study pointed out that the patients were contented with the other services like lab, diagnostic care, prenatal care and preventive healthcare. (Jalil et al., 2017) pointed out that doctors' incompetence, such as "inappropriate handling of critical cases, lack of physical examination, unnecessary reliance on medical tests, erroneous diagnose, non-availability of specialist doctors, and carrying out tests by trainee doctors were related to patient dissatisfaction". (Mohd & Chakravarty, 2014) stated patient satisfaction as a useful measure to provide an indicator of quality in healthcare and there is a need to measure patient satisfaction frequently. (Mohd & Chakravarty, 2014) in the study pointed that outpatient department is the first point of contact of the hospital with patients and serves as the frontline office to any healthcare service provided to the community. It acts as an indicator to measure the service quality of the hospital and depicts the satisfaction towards the hospital. Many studies have pointed out that longer waiting time in the out-Patient department usually causes frustration so the hospitals need

to ensure smooth flow of the patients in order to avoid the barriers and hence improve the patient's satisfaction (Rajkumari & Nula, 2017). (Mohd & Chakravarty, 2014) described Patient satisfaction survey, an important tool to get feedback from the people, tools for learning they can give proportion to problem areas and a reference point for making management decisions. He defined Patient satisfaction survey as a means of measuring the effectiveness of health care delivery in a particular area which reveals the strengths and weaknesses regarding the services provided in the health sector and reflect the care delivered by staffs and health care providers, which can serve as a tool in decision-making. (Hussain et al., 2019) described Patient satisfaction as an attitude derived by a receiver of services as to whether an expectations for services have been fulfilled or not, both at the level of interpersonal care and technical care. He also recognized association between doctors and patients and expressed that physician as a key preference to fulfill patient's needs. (MUKHTAR et al., 2018) pointed out that satisfaction in service provision is increasingly being used as a measure of health system performance. Studies have pointed out that poor reception, inefficient dispensary and pharma services and weaker doctor patient relationship usually are the major sources of discontent in patients while visiting a hospital. (Alamsyah et al., 2019; Nabbuye-Sekandi et al., 2011; Tabish, 2003). It is also stated that Outpatient services can be cost-effective and do not require an overnight stay. Outpatient service centers usually specialize in one type of treatment or procedure And the staff usually has a lot of experience that is focused on the procedure you need (Berehe et al., 2018; Odumodu et al., 2020;

Pini et al., 2014). (Lyngkhai & Brindha, 2015) expressed OPD as the looking glass of the clinic, which reflects the functioning of the hospital being the first contact between the patient and the hospital staff. According to (Lyngkhai & Brindha, 2015) Out Patient Department (OPD) Services is one of the important aspects of Hospital Administration also called as ambulatory service where the patient will be treated without staying in the hospital and will go home after treatment is done. Studies have expressed that Outpatient department (OPD) significantly influence the patient satisfaction level and has become a measureable tool for enhancing the quality of OPD services. It is considered the first point of contact of hospital with patients (Naiker et al., 2018a, 2018b, 2019).

It is noted that patient satisfaction is the outcome of perceiving service implemented against expectation and more the satisfaction, more is the willingness to avail the service repeatedly. In case the expectation is not met, patients look for other alternatives for availing the services. Also advancement in technology has brought the revolutionary development in the parameter, which could enhance the patient satisfaction. This research it is planned to evaluate the effect of the variable which have evolved with time and with advancement of technology. This study will undertake new variable, which were not considered by previous researcher for finding out solution for improvisation of the services and facilities by analyzing the satisfaction of the patient at the grass root level in finest way for better future prospects with an expectation to increase convenience, comfort and care. Based on the review of literature it has been posited:-

H1: Physical facility is an important parameter for measuring the tangibility aspect of service quality.

H2: Physical facility is an important parameter for measuring the assurance aspect of service quality.

H3: Physical facility is an important parameter for measuring the reliability aspect of service quality.

H4: Physical facility is an important parameter for measuring the responsiveness aspect of service quality.

H5: Physical facility is an important parameter for measuring the empathy aspect of service quality.

H6: Physician services are an important parameter for measuring the tangibility aspect of service quality.

H7: Physician services are an important parameter for measuring the assurance aspect of service quality.

H8: Physician services are an important parameter for measuring the reliability aspect of service quality.

H9: Physician services are an important parameter for measuring the responsiveness aspect of service quality.

H10: Physician services are an important parameter for measuring the empathy aspect of service quality.

H11: Technology-based Service encounter is an important parameter for measuring the tangibility aspect of service quality.

H12: Technology-based Service encounter is an important parameter for measuring the assurance aspect of service quality.

H13: Technology-based Service encounter is an important parameter for measuring the reliability aspect of service quality.

H14: Technology-based Service encounter is an important parameter for measuring the responsiveness aspect of service quality.

H15: Technology-based Service encounter is an important parameter for measuring the empathy aspect of service quality.

RESEARCH METHODOLOGY

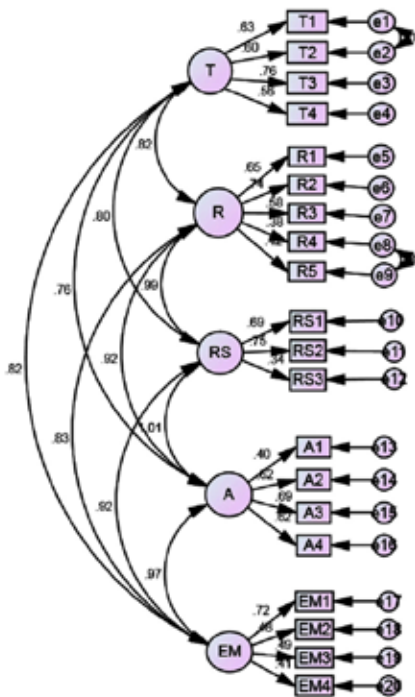
This paper deals with the service measurement theory namely SERVQUAL and the factors that influence the perceived service quality. The study of this theory is done in depth and explained in a diagrammatic way. This paper deals with the secondary data and the researcher can further use this paper with the primary data for further studies. A data of 300 respondents were approached in the various OPDs situated in NCR of India wherein around 283 filled responses were being used for the data analysis. The data was collected from a well-drafted questionnaire developed considering the tested scales. All the responses of the questions in the second section were based on seven-point Likert scale. To ensure the content validity, the questionnaire was shared with the patients and medical experts, followed by incorporating the recommend changes in the questions. A pilot study was also conducted with a small group of 43 respondents having more than one year of experience in using OPD. Their responses helped us in improving the language, length, and format of the scales of the instruments.

DATA ANALYSIS

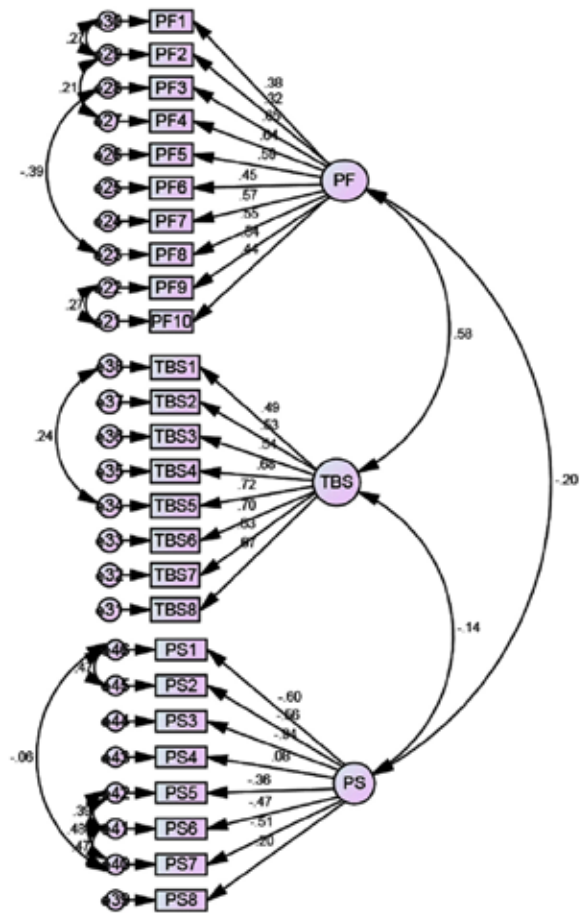
A confirmatory factor analysis (CFA) was conducted for perceived service quality and dimension of service quality. Wherein, the Measurement model results and reliability values of each construct in perceived service quality and dimension of service quality have

been summarised in Table 1. The model fit indices were assessed for an acceptable fit. The model fit indices found were CMIN=1434.67 df=598 cmin/df=2.399, comparative fit index (CFI) = 0.85, normative fit index (NFI) = 0.78 and root mean square error of approximation (RMSEA) = 0.08. These fit indices indicated an acceptable measurement model. The psychometric properties were evaluated for construct reliability and validity. In the reliability analysis, Cronbach's alpha for all constructs

ranged between 0.82 and 0.94 and was above the threshold value of 0.70 (Hair et al., 2009). CFA was evaluated for all six constructs. All factor loadings (λ) were larger than 0.6 and significant at $p = 0.001$. All CR., AVE values are greater than recommended threshold values of 0.7, 0.6 and 0.5 respectively (Gefen & Straub, 2005). AVE values of the constructs were greater than the squared inter-construct correlations. Therefore, all conditions for convergent validity and discriminant validity were met.



CFA-SERVQUAL



CFA-Perceived Service quality

Table1: Summary

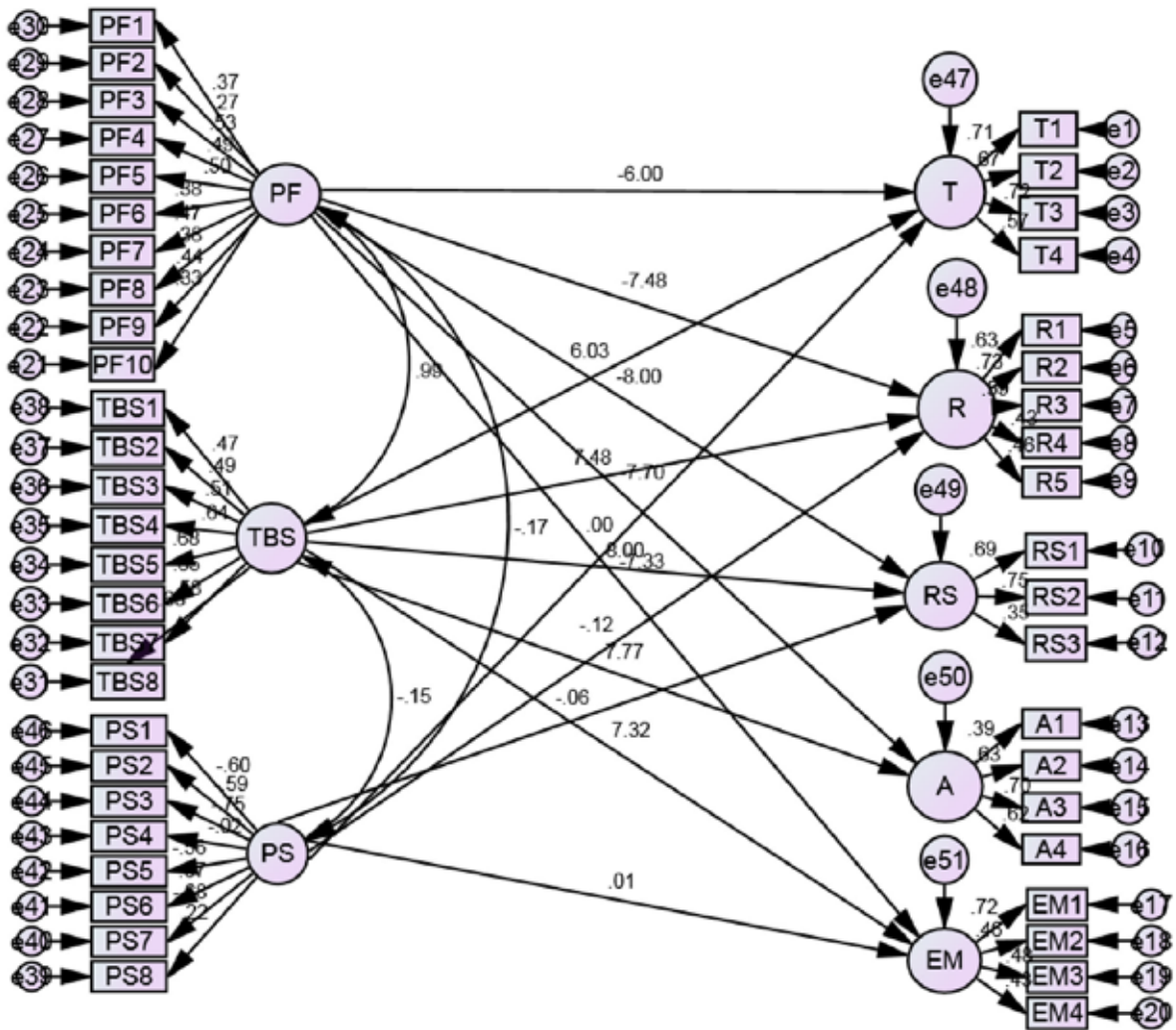
Perceived Service quality	
CMIN	1434.67
df	598
cmin/df	2.399
Comparative fit index (CFI)	0.85
Normative fit index (NFI)	0.78
root mean square error of approximation (RMSEA)	0.08
SERVQUAL	
CMIN	503.034
df	286
cmin/df	1.759
Comparative fit index (CFI)	0.87
Normative fit index (NFI)	0.79
root mean square error of approximation (RMSEA)	0.05

The hypotheses were estimated by the structural model. The results are listed in Table 2. The results showed an acceptable fit of the proposed structural model. The model fit indices found were cmin/df= 2.69, comparative fit index (CFI) = 0.824, normative fit index (NFI) = 0.749 and root mean square error of approximation (RMSEA) = 0.08. The values indicated an acceptable fit for the structural model. All the fifteen hypothesised relationships proposed in services provided by the OPD and Servqual were supported.

Table 2

	Estimate	S.E.	C.R.	P	Label
T<---PF	-6.760	2.917	-2.317	.020	Accepted
R<---PF	-8.946	3.842	-2.329	.020	Accepted
RS<---PF	-9.764	4.164	-2.345	.019	Accepted
A<---PF	-4.927	2.209	-2.231	.026	Accepted
EM<---PF	-10.158	4.336	-2.343	.019	Accepted
T<---TBS	5.639	2.357	2.393	.017	Accepted
R<---TBS	7.428	3.103	2.394	.017	Accepted
A<---TBS	4.134	1.790	2.309	.021	Accepted
EM<---TBS	8.422	3.500	2.406	.016	Accepted

T<---PS	.008	.208	.038	.019	Accepted
R<---PS	-.396	.241	-1.646	.010	Accepted
RS<---PS	-.202	.222	-.911	.052	Accepted
EM<---PS	.021	.266	.078	.037	Accepted
RS<---TBS	8.117	3.362	2.414	.016	Accepted



FINDINGS AND DISCUSSION

The study was undertaken with an intention to find the association of services provided by the OPD and its impact on the Servqual. Moreover this research study is planned to fill the research

gap by adding knowledge to the existing pool, by evaluating the determinant, which had evolved with time and were not considered by previous researcher. And to enlighten the relationship between the services provided by the OPD and its impact on the Servqual determinants of service quality for finding out solution for improvisation of the services in an Outpatient Department (OPD) of Health Care Center across Delhi and NCR. The physical services like signage, drinking water, ventilation facilities and sitting arrangement are the vital dimensions which are important for the measurement of service quality in OPD. Similarly the Physicians services which include availability of the doctor, consultation room, waiting time, effective consultation and communication are also considered to the vital dimensions in measuring the service quality of OPD. Further the IT-enabled service which has been considered in this study also is an important dimension of measuring the service quality which included the booking online the doctor's appointment, medical report access and online consultation fees. It was found that all the hypotheses have been accepted and it can be pointed out that the physical facilities have a impact on the measurement of the service quality similarly the Physicians services also impact the service quality and further the newly added variable namely technology based services also has an impact on the dimensions of service quality.

IMPLICATIONS OF THE STUDY

The study clearly establishes the relationship between the services provided by the OPD with the service quality which clearly implies that services provided by the OPD are essential

dimension which determine the measurement of service quality in OPD services. The physical services like signage, drinking water, ventilation facilities and sitting arrangement are the vital dimensions which are important for the measurement of service quality in OPD; this clearly implies that the physical services like signage waiting rooms and other facilities are very essential for service quality. Similarly the Physicians services which include availability of the doctor, consultation room, waiting time, effective consultation and communication are also considered to the vital dimensions in measuring the service quality of OPD. This implies that the doctor need to be good in communicating the issues related to health and counsel the patient well in taking their treatment, since this also considered being essential while measuring the service quality in OPD. Further the IT-enabled service which has been considered in this study also is an important dimension of measuring the service quality which included the booking online the doctor's appointment, medical report access and online consultation fees; this implies the IT-enabled services have to be effective since it act as a parameter for measuring the service quality.

LIMITATIONS OF THE STUDY

No study can be complete without pointing out the limitations which act as a potential for the future studies. It would really unworthy if the limitations of the present study are not being pointed out. Firstly, the socio-economic variable of the patients which is supposed to an extremely vital variable in any studies have not been considered which may confine generalizability of findings to some extent, if considered may

bring out new dimensions. Further, the study is only confined to the NCR other parts of India if considered the results can bring new horizons. Secondly, other services hospital has not been considered in the present study, new direction can be drawn by considering other services offered by the hospital. Thirdly, IT-enables have been considered as an important variable in the study collectively with other variables like physical services and Physician services, study can be

considered taking this single variable. Fourthly, other model of service quality can be considered to find new direction in the present study. It would be worth pointing out another vital limitation that the study talks about the dimension of services quality and the various services rendered by OPD in the hospital but the views of service providers have not been considered, including the views of service providers would bring new insights in the service quality studies.

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