SERVQUAL MODEL TO ASSESS PATIENT SATISFACTION IN THE IN-PATIENT DEPARTMENT

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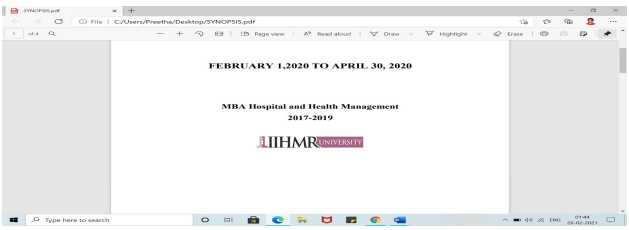

THE IIHMR UNIVERSITY, JAIPUR

For the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

In

Hospital and Health Management

By

Dr Preetha P

Under the Supervision and Guidance of

Dr SD Gupta

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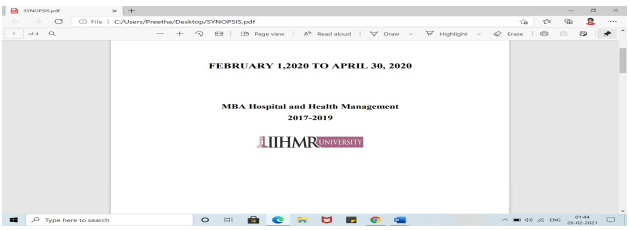

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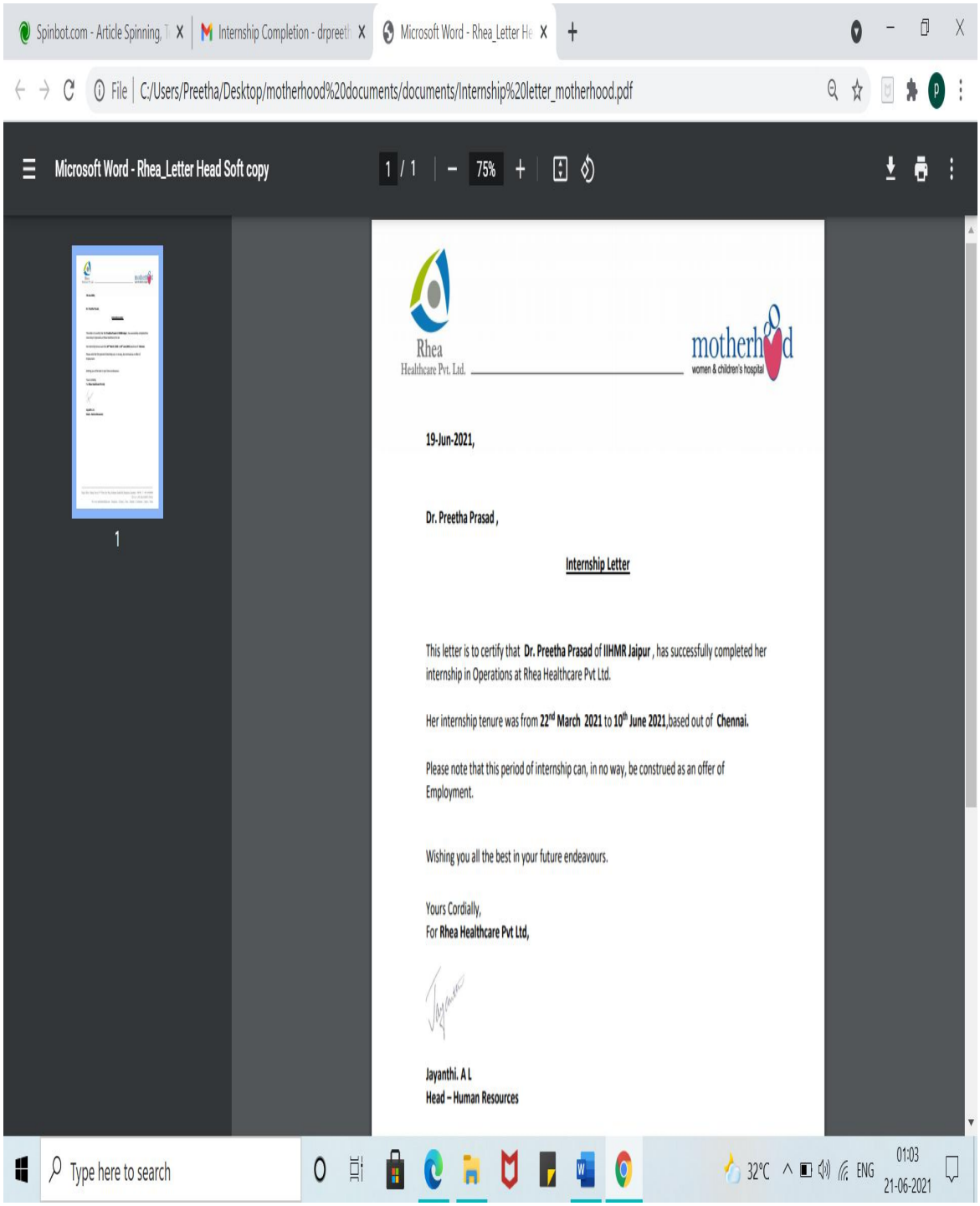
DECLARATION BY STUDENT

I hereby declare that this dissertation titled *"ServQual Model to Assess Patient Satisfaction in the In- Patient Department"* is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Dr Preetha P

16-06-2021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Internship Letter
This letter is to certify that Dr. Preetha Prasad of IIHMR Jaipur , has successfully completed her internship in Operations at Rhea Healthcare Pvt Ltd.
Her internship tenure was from 22nd March 2021 to 10th June 2021,based out of Chennai.
Please note that this period of internship can, in no way, be construed as an offer of Employment.
Wishing you all the best in your future endeavours.
Yours Cordially,
For Rhea Healthcare Pvt Ltd,
Jayanthi. A L
Head – Human Resources
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CERTIFICATE

This is to certify that dissertation titled *"ServQual Model to assess the patient satisfaction in the In-Patient Department"* is a record of the research work undertaken by Dr Preetha P in partial fulfilment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and her approach to research study has been sincere, scientific, and analytical.

Faculty Guide
IIHMR University, Jaipur

Date:

ABSTRACT

Introduction: Hospitals with poor patient satisfaction are likely to suffer with process insufficiencies, staff training and quality. From coordinating for an effective medical practice to meeting the necessities of a patient and everything in the middle, there is by all accounts no restriction to how hospitals can deal with to satisfy their patients. Great customer satisfaction is basic in all industries, however perhaps, none more than in healthcare sector. A satisfied patient is a happy client, who goes back and refers more patient to opt for the hospital for getting treated. Many hospitals tend to forget this aspect. By defining potential points and making a thoughtful customer service plan, a hospital can differentiate themselves in patient experience. SERVQUAL (an acronym derived from the term "Service Quality") is a well-tested survey method for measuring service quality which focuses on five service quality dimensions – Tangibles, Reliability, Responsiveness, Assurance & Empathy.

Research Question: What is the perception of the patients to the level of services delivered at Motherhood Hospital?

Objectives: Broad Objective: To assess the patient satisfaction in the in- patient department of Motherhood Hospital, Chennai which is a tertiary care hospital specialising in maternal and childcare. **Specific Objective:** To commute the perception score of the services delivered at Motherhood Hospital and to come up with immediate, intermediate, and long-term recommendations on improving the perception scores of the patients.

Methodology: The survey is a cross section analytical study with random sampling conducted at the In-patient department of Motherhood Hospital over the period of April 5, 2021, to May 5, 2021. The survey consisted of a SERVQUAL questionnaire having two sets of 23 identical questions, one set to capture the service expectation score and the other set to capture the service perception scores of the respondents.

Results: A total of 100 respondents answered the questionnaire. The respondents were demographically classified based on the age groups, type of procedure underwent in the hospital and the average length of stay. The survey results were tabulated, and it was found that the average perception scores for the five dimensions exceeded the 80% perception threshold indicating an acceptable level of service delivery at the hospital. However, the individual average weighted gap scores were found to be as follows: Tangibility (-7.31), Reliability (-14.69), Responsiveness (-27.6), Assurance (-8.32) and Empathy (-41.74). It is evident from the results that the dimensions of empathy and responsiveness require immediate term intervention, followed by the dimension of reliability which requires intermediate term intervention and the dimensions of assurance and tangibility need to have a long-term intervention to obtain an increase in the patient perception scores.

Conclusion: The results of the study will prove to be significant to the stakeholders as it can help the hospital to reengineer and recreate their service delivery and adapt strategies that are more patient centred.

Keywords: “patient satisfaction”, “SERVQUAL model”, “service quality”, “tangibility”, “reliability”, “responsiveness”, “assurance”, “empathy”

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The journey to become a wise and responsible professional does not concise to classroom learnings. The experience that I gained while working on this project with Motherhood Hospital, Chennai, acquainted me with the practical aspect of Research Methodology & implementation of the theory in the real life. Any compliments require the effort of the respondents to the survey for their valuable time in filling up the form. My sincere thanks to all for taking me ahead in this journey.

I am appreciative to my guide Dr SD Gupta, President, Institute of Health Management Research, Jaipur for the consistent help identified with my questions, for his understanding, inspiration, and enormous information. His direction helped me in all the time recorded as a hard copy of this report.

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LIST OF ABBREVIATIONS

SERVQUAL	**Service – Quality**
ALOS	Average Length of stay
LSCS	Lower Segment Caesarean Section
COVID	Corona Virus Disease
T	Tangibility
RL	Reliability
R	Responsiveness
A	Assurance
E	Empathy

1. INTRODUCTION

When it comes to a hospital setting, the goodwill of the hospital lies in the interaction between patients and healthcare providers as it influences patients' satisfaction. For an ideal hospital stay, the experiences that patient have is very important which includes communication with doctors and nurses, responsiveness of hospital staff, pain management, cleanliness, hospital environment, instructions right from the admission, medications, procedures being done until discharge. This encounter provides the patient with the opportunity to assess and evaluate service quality and conversely it offers the provider an opportunity to manage patients' perceptions and service quality and know the scope for any improvement to meet provide the best services to their patient. It is important for a hospital to provide the best services meeting their patient's expectations as a hospital which is said to provide excellent patient service is likely to have robust and defined processes and systems. Hospitals with poor patient satisfaction are likely to suffer with process insufficiencies, staff training and quality. From coordinating for an effective medical practice to meeting the necessities of a patient and everything in the middle, there is by all accounts no restriction to how hospitals can deal with to satisfy their patients. Great customer satisfaction is basic in all industries, however perhaps, none more than in healthcare sector. Doctors deal with patients when they are at their most vulnerable time. Many would expect an extraordinary patient care being given in a hospital is all about patient care, but it is a lot more that. It is about the nature of services being provided offered by the specialists. While this is basic, patient satisfaction goes beyond treatment. It's the seemingly insignificant details like the clinician's accessibility when the patients need them most or the way they communicate and also the care that a patient gets in addition to other things also count. A good patient care in the in- patient department starts when the patient is admitted to the in- patient ward and a bed is made available for their hospital stay after admission. Things like having to wait for the availability of bed, not getting a response, talking to an under- whelmed or over-whelmed staff can be a complete turn off for the patient. Hence delivering the optimal patient service is important for setting a benchmark for the quality of care, creating a loyal patient base and goodwill which influences the reputation of the hospital. A satisfied patient is a happy client, who goes back and refers more patient to opt for the hospital for getting treated. Many hospitals tend to forget this aspect. By defining potential points and making a thoughtful customer service plan, a hospital can differentiate themselves in patient experience.

1.1 STATEMENT OF PROBLEM

Motherhood Hospital, Chennai is a corporate tertiary level hospital specialised in maternal and childcare, functioning with 34 beds, with a level III NICU facility. Two years ago in order to become more patient centred, the hospital completely restructured its care delivery model to improve the infrastructure and physical facilities being provided in the in- patient department. Examples are incorporation of suite rooms, executive room based on patient preference on the delivery packages, availability of amenities like the microwave, television, fridge in the patient room. The diet chart and the menu at the food & beverages were also looked into and customised to patient needs.

Despite the expansion to the services been provided, the in- patient satisfaction index was found to be low compared to the out – patient satisfaction and not seen at par to with the previous in- patient satisfaction indices before the upgrading of the facilities.

This calls for the need to assess how the patient perceives the quality of services being delivered in the in- patient department and work on the gaps in service delivery to ship out to improve performance and knowing the potential areas where the scope of improvement should be necessitated as patients are becoming more aware of their requirements. There is a complete evolution of their expectations and perceptions making it more difficult for the service providers to manage and measure services effectively and efficiently. This paper attempts to demonstrate the implications of one of the widely accepted model for measuring service quality that's the SERVQUAL model.

SERVQUAL (an acronym derived from the term "Service Quality") is a well-tested survey method for measuring service quality which focuses on five service quality dimensions – Tangibles, Reliability, Responsiveness, Assurance & Empathy. SERVQUAL surveys usually include 22 service areas distributed throughout the five service quality dimensions. The survey often asks the customers to provide two different ratings on each attribute- one reflecting the level of service they would expect from the organisation in each sector and the other reflecting their perception of the service delivered by a specific company within a sector. The difference between the expectation and perception rating constitutes a qualified measure of service quality.

Hospitals are a service industry, and it involves a variety of processes and a large-scale interaction between variety of patients, hence this model can be utilised for the healthcare sector. It is a tool which is used to measure the service quality and also the satisfaction of the clients. There are many issues in the hospital & healthcare setup that requires the need to measure and assess the patient's satisfaction and improve them. Using a reliable tool to measure the service quality, it will be useful in measuring and assessing the perceived quality of the service and the satisfaction level of the patients and also to know what is been cherished by the patients, to what extend the service delivered can be altered or improved distributing the scarce resources of the health care setup.

Quality of service can thus be defined as the difference between customer expectations of the services being delivered and the perceived level of services delivered. The five elements that make up the SERVQUAL model are the five dimensions of the service quality that a health care organisation needs to focus at. It includes tangibles, reliability, responsiveness, assurance, and empathy.

There are a lot of factors that cover the dimensions of the service quality. They are:

- **Tangibles:** The dimension of tangibles include the attributes of physical facilities in the healthcare organisation. It includes building, equipment, appearance of both the personnel and the devices that are used to communicate to the patients.

- **Reliability:** This dimension of the service quality refers to the ability to deliver the service in a dependable and manner of accuracy.

- **Responsiveness:** This dimension of service quality refers to the desire or the willingness of the employees at the organisation to assist the patients and deliver a prompt service.

- **Assurance:** The dimension of assurance involves the knowledgeable and courteousness of the employees at the organisation who instil trust in the patients and inspire confidence establishing the quality of assurance.

- **Empathy:** The last dimension of empathy is the nature of care and personalised attention given by the organisation to their patients.

Therefore, the objective of the study is to assess the patient satisfaction in the in-patient department of Motherhood Hospital, Chennai which is a tertiary care hospital specialising in maternal and childcare. The results of the study will prove to be significant to the stakeholders as it can help the hospital to reengineer and recreate their service delivery and adapt strategies that are more patient centred. The hospital stands to gain if the patient's expectation of service deliver is met as it would help the hospital to gain a goodwill also improving the patient footfall.

2. REVIEW OF LITERATURE

Interpersonal communication skills and technical skills of the health care provider are taken as two potential area to assess the patient satisfaction in the hospital setting. Patient satisfaction is taken as an important quality improvement tool. A study done in a tertiary care hospital of Harayana on 450 inpatient and outpatient of the hospital showed that 28.1% of the patients were dissatisfied by the availability of basic amenities in the hospital. It is important to understand patient's satisfaction in providing responsive, quality healthcare delivery, according to Woodside et al (1989) cited in Peprah (2014). He argues that it is prudent for healthcare providers to access and deliver to patient's priorities among various service quality dimensions and to improve these dimensions for patient satisfaction. Many studies state customer satisfaction is a fundamental requirement for healthcare providers and that its positive implications on patient retention and loyalty is influenced by the rate of patient compliance with physician advice and the healing process of the patient contributing to the satisfaction of the patient. (Calnan, 1988; Roter et al, 1987). The healthcare service quality is an indicator aiding the discovering of the aspects of service quality that requires changes to improve patient satisfaction (Jackson and Kroenke; 1997). Patient's view is an essential tool for monitoring and managing as well as improving service quality as stressed by many studies. In his study Hendriks et al, 2002 stated that there is a shift in the culture of the health care system from the decisions and preferences of the medical practitioners to the views and needs of the patient making it a more patient centred approach. This led to a number of studies investigating on the patient satisfaction aspect of the

health care setting to evaluate the running of the health care organisation. (Al Qatrai and Haran, 1999)

SERVQUAL as a reliable instrument for determining the service quality and satisfaction of patients was asserted by Zeithaml et al, 1990. Assessing and measuring satisfaction of the patient and the perceived quality of service is an important issue for a healthcare provider to understand what is cherished by the patient and to know what and where the service can be altered to make possible improvement to improve the service delivery of the health care organisation (Sewell, 1977). Hence SERVQUAL model has a reflection on the patient's satisfaction. Sixam et,al (1998) stated satisfaction as the condition of fulfilment with an activity, occasion and it is determined considerably by the assumptions of the customers and their encounters. Satisfaction was also seen as the customers emotional feelings related to a perceived delivery of service (Oliver, 1981). As per Oliver, patient satisfaction can also be seen as the mental assessment of the patient towards a service delivery and their perception. Kotler in 2003 advanced the debates on patient satisfaction as the feeling of happiness or displeasure as a result of comparing the products or service's outcome to their expectations. From this review, Stemming took patient satisfaction as the cognitive and affective evaluation of the expectation to a service and the perception on how the service was delivered. Peprah (2014) came up with certain factors that play a critical role in the satisfaction of the patient such as; attitude of the nurses towards patients, attitude of the doctors towards the patients, the capacity to deliver prompt service without wasting anytime, ability to transfer information to the patient without any miscommunication, availability of the physical equipment, cleanliness of the hospital environment, details of the treatment being given to the patient, detailed information on the medication being provided and attractiveness of the hospital.

It was Parasuraman et al, (1985) who explained satisfaction in relation to service quality. They defined service quality as the gap between the expected quality of the service (patient expectation) and the perceived delivery of service (patient perception). If the patient expectations are more than the perceived level of services, then a gap arises and jt calls for a service improvement. This does not necessarily mean that the quality of service is low, but it can also state that the services are not meeting the customer's expectations thus a customer dissatisfaction occurs, and it provides an opportunity to improve the service delivery being provided.

2.1 SERVQUAL; A TOOL FOR MEASURING SERVICE QUALITY

To recognize and focus on performance improvements that are required to guarantee that patients' expectations and assumptions are being met, the two expectations and perception for administration should be estimated (Accounts Commission of Scotland, 1999a , Parasuraman 1985, 1988) , Hart (1996) uphold that the use of service quality dimension administers quality measurements and gives both a construction to planning a quality estimation instrument and a structure for focusing on results and findings.

Parasuraman (1988) designed the SERVQUAL model taking into account both the service quality dimension and the gap score. The SERVQUAL model in its original form contains a pair of 22 questions of Likert scale statement structure around the five-service quality dimension.

- **Tangibility:** The dimension of tangibility includes the attributes of physical facilities in the healthcare organisation. It includes building, equipment, appearance of both the personnel and the devices that are used to communicate to the patients. A conceptual framework to examine the impact of physical surrounding as it is related to patients and employees was done by Bitner (1992). Bitner's work also proved that physical appearance was the major aspect to affect the satisfaction level of the patients. Validation on the physical appearance on service quality was given in the work done by Berry and Clark (1992). The tangible service dimension was never modified in the subsequent modifications of the SERVQUAL model by Zeithmal et al, (1998).

- **Reliability:** This dimension of the service quality refers to the ability to deliver the service in a dependable and manner of accuracy. Garvin (1987) stated that reliability always tends to show up in the evaluation of service. Parasuraman (1988) stated that reliability is normally the most important attribute customers seek when it comes to service dimensions. He also stated that the conversion of negative wordings to positive wordings as suggested by Babakus and Boller (1991) increased the accuracy of the dimension. Walker (1995) in his study found that if there is adequate delivery of the basic level of service, then the peripheral performance leads the customer to encounter the service delivery as satisfactory. This was also one of the original dimensions not modified in the study by Zeithmal et al (1998)

- **Responsiveness:** This dimension of service quality refers to the desire or the willingness of the employees at the organisation to assist the patients and deliver a prompt service. Responsiveness as stated by Parasuraman (1998) was the exact time used to deliver the prompt services to the patient appropriately, how quickly the requests by the patients were responded to. Bahia and Nantel (2001) disregarded this dimension in their study due to its lack of reliability however they considered the other dimensions of the SERVQUAL model to be standardised for their findings and results. This was also one of the original dimensions not modified in the study by Zeithmal et al (1998)

- **Assurance:** The dimension of assurance involves the knowledgeable and courteousness of the employees at the organisation who instil trust in the patients and inspire confidence establishing the quality of assurance. Actions by employees such as courteous behaviour, instilling of confidence and knowledge were included as prime elements of assurance service dimension by Parasuraman et al (1998). Zeithmal et al (1998) replaced assurance with competency, credibility, courtesy, and security in his study for evaluating service quality dimension.

- **Empathy:** The last dimension of empathy is the nature of care and personalised attention given by the organisation to their patients. Parasuraman et al (1998) in his study stated that the degree to which the customer feels empathetic will make the customer to either accept or reject the service encounter, The empathy service dimension was replaced by access, communication and understanding of the customer in the work of Zeithmal et al (1998).

In the SERVQUAL model, each question appears twice. One measure the expectations of the individual to receive the delivery from the healthcare organisation and the other measures the perceived level of receiving the service by them. The twenty- two sets of questions are designed to fit the five dimensions of service quality namely, tangibility, reliability, responsiveness, assurance and empathy. The scale for measuring the statements are on a five point Likert scale namely; "strongly disagree" (1), "disagree" (2), "neutral" (3), "agree" (4), "strongly agree" (5). The end of the scale "strongly agree" corresponds to high degree of perception and expectations.

A service quality is said to occur when the levels of perceptions meet the levels of expectations. If the expectations levels are higher than the perception level, a gap is said to occur. Presence of a negative gap means; the expectation levels are lesser than the perceived level of service. A positive gap score indicates that the expectation levels are meeting the perception level of the service delivery. The gap score for each statement is calculated by subtracting the expectation and the perceived score for each statement. The overall gap score for each dimension can be calculated by aggregating the individual statement gap score. This helps the organisation in recognising which service dimension is falling short in meeting the patient expectations and scope of improvement needs to be necessitated.

(Accounts Commission of Scotland, 1999, Parasuraman 1985, 1988) state that the SERVQUAL model can be utilised for the following reasons.

- ✓ Comparing performance across different customer groups
- ✓ Comparing the performance across different service quality dimension
- ✓ Understanding the different customers in the organisation
- ✓ Understanding the current service quality of the organisation
- ✓ Scope of quality improvement programs

There are many array of studies related to SERVQUAL model in healthcare to assess patient's perception in getting the service delivered in a number of categories like patient satisfaction (Bowers et al, 1994) , acute care hospital (Carman 1990), independent dental office (McAlexander et al, 1994) , AIDS service agency (Fusilier and Simpson 1995) , public university health service (Anderson 1994).

Buttle (1994) in his study on the SERVQUAL model listed down the advantages of the model:

- ✓ Can be accepted as a standard to measure different aspects of service quality dimension.
- ✓ The model proves to be reliable.

- ✓ The model has shown to be valid for several services sectors.
- ✓ Parsimonious in nature as the questionnaire can be filled swiftly and in an easy manner as it has limited number of items.
- ✓ It adapts standardised analysis procedure for interpretations and result findings.

SERVQUAL Model had been also presented with several modifications by the researchers. Zeithmal et al (1998) had ten service quality dimensions. It included “tangibility”, “responsiveness”, “reliability”, “competency”, “credibility”, “courtesy”, “security”, “access”, “communication” and “understanding of the customer”.

While Lim and Tang (2000) introduced “accessibility/ affordability”, Tucker and Adams (2001) included “caring and outcomes”.

Johnston (1995) increased the service quality dimension in the SERVQUAL model to eighteen. On the other hand, service dimensions were also reduced from ten to seven by Redeinbach and Smallwood (1990). “Empathy”, “patient confidence”, “quality of treatment”, “physical appearance”, “waiting time” , “support services”, and “business aspects” were the service dimensions in their study.

Hulka et al (1990) based it on three aspects, “personal relationships”, “convenience” and “professional competence”.

Thompson (1983) made use of seven dimensions: "tangible", "communications", "relationships between staff and patients", "waiting time", "admission and discharge procedures", "visiting procedures" and "religious needs". Baker (1990) focused on "consultation time", and "depth of relationship”, “professional care".

Tomes and Ng (1995) conducted a content analysis of in-depth interviewing by making use of a total of eight dimensions namely, "empathy", "relationship of mutual respect", "understanding of illness", "dignity", "physical environment" "food", and "religious needs". Camilleri and O'Callaghan (1998), the appropriate dimensions for measuring hospital service quality were as follows: "service personalization", "patient amenities", "price", "environment", "professional and technical care", "accessibility" and "catering".

Andaleeb(1998) focused his studies on only five dimensions which were: "cost", "facility", "competence" "communication", and "demeanour”.

Jun et al., (1998) carried out focus group discussion and came out with eleven dimensions as appropriate for assessing service quality in healthcare settings. The dimensions were named as "courtesy", "tangibles", "reliability", "communication", "competence", "reliability", "understanding customer", "access" "patient outcomes" "responsiveness", "caring", and "collaboration".

Last but not the least Hasin et al., (2001) identified five dimensions which are "responsiveness", "courtesy", "cost" "communication", and "cleanliness".

Yet, Walters and Jones (2001) establish several elements to be measured in hospital service quality such as "security", "aesthetics", "convenience", "performance", "economy" and "reliability". John (1989) recommends four dimensions of healthcare service quality: "curing", "caring", "access" and "physical environment".

This paper focuses on the original work of Parasuraman et al (1985) in the SERVQUAL model which included five dimensions for service quality namely, “tangibility”, “reliability”, “responsiveness”, “assurance”, and “empathy”.

For assessing and measuring the service quality delivery in healthcare services, the SERVQUAL model of Parasuraman (1985) is extensively used as the conceptual framework. Four unique gaps influence the customers quality perceptions. These gaps are presented below:

i. Not knowing what the patients expects i.e., the difference between the patient’s expectations and the management perception of patient’s expectation.
ii. Improper service quality standards i.e., the differences between the management perception of patients’ expectation and the service quality specification.
iii. Service performance gaps i.e., the difference in the service quality specification and the actual service delivered.
iv. The difference in the service delivery and what is communicated to the patients.
v. The difference between the patients’ expectations and perceptions which sequentially depends on the size and direction of the four gaps with the delivery of the service quality on the service provider’s side.

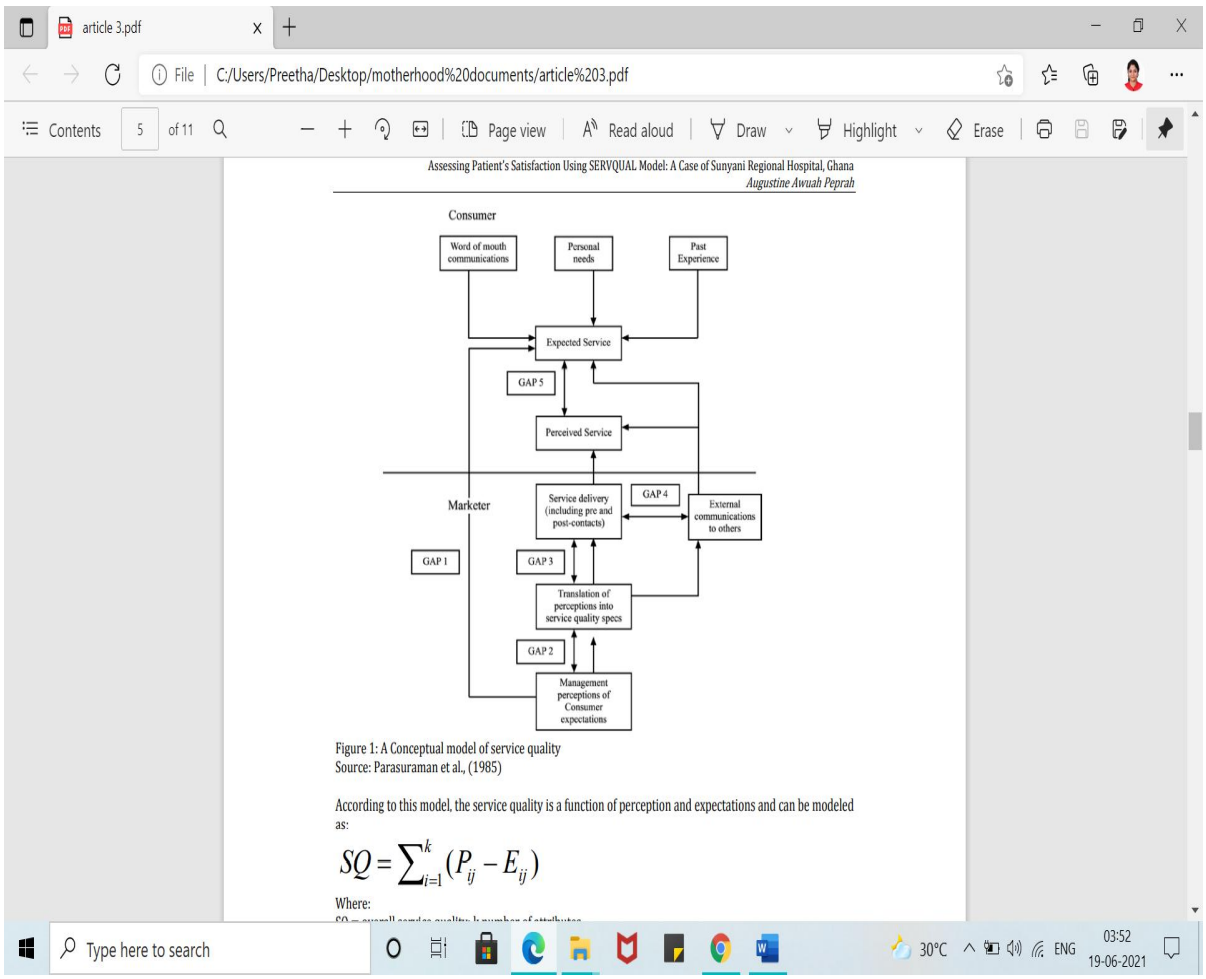

Figure 1: Conceptual framework of Parasuraman et al (1985) SERVQUAL Model

According to this model, the service quality is a function of the difference of the expectations and the perceptions of the customers.

Service Quality = Perception of service delivered – Expectations from service delivery

3. METHODOLOGY

Two sets of questionnaires were prepared based on literature review. The questionnaire was standardised based on a small, scaled pilot test study done on 15 patients. The final questionnaire was drafted involving identical statements from the service quality dimension. The tangibility dimension had nine questions, the reliability dimension included six questions, responsiveness dimension had three questions, the dimensions of assurance and empathy had two and three questions included, respectively. Overall, there were a total of 23 pairs of questions. One set of questions asks the patients to indicate the extent to which the IPD services should possess the features described by each statement. The other set asks about their views regarding the extent to which they believe the

hospital's IPD services has the features and benefits described by the statement. The questionnaire representing patient's expectation focuses on the word "should" to state the level of expectation regarding each criterion. A five-point Likert scale was used to get the level of expectation and perception associated with each service quality dimension. The SERVQUAL attributes included in the study were Very Bad (1), Bad (2), Average (3), Good (4), Very Good (5).

3.1 **MODE OF DATA COLLECTION**

The "expectation" set of questions were given to the patient / attender on the first day of their stay at the hospital to know the levels of expectation to a service delivery. The "perception" set of questions were given to the patient / attender prior to their discharge from the hospital (average length of stay being 2.5 days for normal delivery cases, 3.5 days for LSCS cases). After conducting the survey all the questionnaires were collected for tabulation and analysis. The survey was conducted over a period of two months; April 5, 2021, to June 5, 2021. All patients admitted in the ward and recovery room for delivery and other procedures like (hysterectomy, MTP, D&C etc) were included for the study. Patients who were COVID positive and were kept in the isolation room were excluded from the study adhering to the entry restrictions as per hospital COVID 19 protocols.

3.2 OBJECTIVE OF THE STUDY

The objective of the study is to compute the gap score between the expected and perceived level of services delivered to the patient and to delineate the areas where there is a scope of improvement in the service delivery at the In- patient department of Motherhood Hospital, Chennai which would result in increased perception on the part of the patients.

3.3 SERVQUAL QUESTIONNAIRE INCLUDED IN THE STUDY

CODE	EXPECTATIONS	(E)	PERCEPTIONS	(P)	P-E
	This survey deals with your (patient's) opinions of IPD services in a hospital.		The following statements relate to how your (patient's) perceive the services received at the IPD at Motherhood Hospital		
TANGIBLE					
T1	Medical instruments and physical facilities are visually appealing		Medical instruments and physical facilities provided in IPD are visually appealing		
T2	Employees' uniforms are clean, nice, and neat.		Employees' uniforms are clean, nice, and neat.		
T3	Clean, adequate supplies, and well-maintained rooms		Clean, adequate supplies, and well-maintained rooms		
T4	Good lighting in every room		Good lighting in every room		
T5	Suitable temperature in the rooms		Suitable temperature in the rooms		
T6	Meals served are clean and hygienic.		Meals served are clean and hygienic.		
T7	Meals served are delicious		Meals served are delicious		
T8	The atmosphere of every room is cozy		The atmosphere of every room is cozy		
T9	The scent in every room is refreshing.		The scent in every room is refreshing.		
				AVERAGE TANGIBLE SERVQUAL SCORE	
RELIABILITY					
RL1	Appropriate employee responses		Appropriate responses by the doctors and nurses		
RL2	Medical treatments are well explained.		Maternity & Paediatric treatments are well explained.		
RL3	Available and adequate family visiting times		Available and adequate family visiting times considering COVID restrictions		
RL4	All medical & non- medical activities are well scheduled		All medical and non- medical activities are well scheduled		
RL5	The employees solve the problems sincerely		The staffs solved the problems sincerely		
RL6	All equipment (AC, TV, fridge, microwave) works properly.		All equipment (AC, TV, fridge, microwave) works properly.		
				AVERAGE RELIABILITY SERVQUAL SCORE	
RESPONSIVNESS					
R1	Employees give clear, understandable information		Employees give clear, understandable information		
R2	Appropriate and prompt services		Appropriate and prompt services		
R3	Quick medical treatment response when needed		Quick medical treatment response when needed		
				AVERAGE RESPONSIVENESS SERVQUAL SCORE	

SCORES	
Very Bad	1
Bad	2
Average	3
Good	4
Very Good	5

3.4 PLAN FOR DATA ANALYSIS

3.4.1 STEPS TO OBTAIN UNWEIGHTED SERVQUAL SCORE

Step 1. Using the SERVQUAL instrument, first obtain the score for each of the 'expected' questions. Next, obtain a score for each of the 'perception' questions. Calculate the Gap Score for each of the statements **(Gap Score = Perception – Expectation)**

Step 2. Obtain an average Gap Score for each dimension by assessing the Gap Scores for each of the statements that constitute the dimension and dividing the sum by the number of statements making up the dimension.

Step 3. In the TABLE 1 transfer the average dimension SERVQUAL scores (for all five dimensions) from the SERVQUAL instrument. Sum up the scores and divide it by five to obtain the unweighted measure of service quality.

3.4.2 STEPS TO OBTAIN THE WEIGHTED SERVQUAL SCORE

Step 1. Calculate the importance weights for each of the five dimensions constituting the SERVQUAL scale.

Step 2. In Table 3 enter the average SERVQUAL score for each dimension and the importance weight for each dimension. Then multiply the average score for each dimension with its importance weight.

Step 3. Add the weighted SERVQUAL scores for each dimension to obtain the overall weighted SERVQUAL score.

3.4.3 CALCULATIONS TO OBTAIN UNWEIGHTED SERVQUAL SCORE

Table1: Calculations to obtain unweighted SERVQUAL score

Average Tangible Servqual score	
Average Reliability Servqual score	
Average Responsiveness Servqual score	
Average Assurance Serqual score	

Average Empathy Servqual score	
TOTAL	
UNWEIGHTED SERVQUAL SCORE (TOTAL/5)	

3.4.4 SERVQUAL IMPORTANCE WEIGHTS

Listed below are five features pertaining to services in the IPD. This helps in knowing how much each of these features is important to the patient. 100 points are allocated among the five features according to how important it is for the patient. The points should add up to 100. The patient / attender was asked to rate this parameter and the average importance weight is tabulated.

Table 2: SERVQUAL importance weights

FEATURES	POINTS
The appearance of the physical facilities, equipment, personnel, and communication materials.	
The ability to perform the promised service dependably and accurately.	
Willingness to help patients and provide prompt service.	
The knowledge and courtesy of the employees and their ability to convey trust and confidence.	
The caring, individual attention the hospital provides its patients	
TOTAL	**100**

TABLE 3: SERVQUAL WEIGHTED SCORES

SERVQUAL DIMENSION	SCORE FROM TABLE 1	IMPORTANCE WEIGHT FROM TABLE 2	WEIGHTED SCORE
Average Tangible			
Average Reliability			
Average Responsiveness			
Average Empathy			
Average Assurance			
		TOTAL	
		WEIGHTED SERVQUAL SCORE (TOTAL / 5)	

Using SPSS statistical software, the following table will be computed for analysis of data using bar charts and other statistical diagrams.

Table 4: Consolidated Table for survey

Dimension	Code	Performance	Expectation	Gap score	Average Servqual perception score	Dimension Weight	Average unweighted gap score	Weighted Gap Score
		Average	Average					
Tangibility	T1							
	T2							
	T3							
	T4							
	T5							
	T6							
	T7							
	T8							
	T9							
Reliability	RL1							
	RL2							
	RL3							
	RL4							
	RL5							
	RL6							
Responsiveness	R1							
	R2							
	R3							
Assurance	A1							
	A2							
Empathy	E1							
	E2							
	E3							

4. RESULTS

Once the questionnaire was collected, the score of 100 responses were tabulated over the period from April 5,2021 to June 5, 2021. The average perception score and the expectation score for the five service dimensions were calculated for all the 100 respondents. For each statement, the gap score was calculated by the formula perception (P) – Expectation (E) and the average gap score for each dimension was also calculated for all the 100 respondents. The average importance weight score for the 5 service dimensions were calculated. The weighted score was calculated by multiplying the importance weight of each service dimension with the unweighted service dimension score.

4.1 **DEMOGRAPHIC DETAILS**

The demographic details of the respondents are as follows:

Table 5: Demographic Details – Age group

Age	Number	Percentage
<31 years	23	23%
31-40 years	57	57%
41-50 years	15	15%
>51 years	5	5%
Total	100	

Figure 2: Demographic Details – Age group

Of the 100 respondents who were all females, 57% of the respondents belonged to the age group of 31- 40 years, 23% of the respondents were below 31 years, 15% of the respondents were between 41- 50 years and 5% of the respondents were above 51 years.

Table 6: Demographic Details – Reason for admission

Reason for Admission	Number	Percentage
Normal Delivery	30	30%
LSCS Delivery	40	40%
MTP	15	15%
Hysterectomy	5	5%
Others	10	10%
Total	100	

Figure 3: Demographic Details – Reason for admission

It was found that 40% of the respondents were admitted for LSCS delivery, 30% underwent a normal delivery, 15% of the respondents were admitted for medical termination of pregnancy. 5% of the respondents of the study were admitted for

hysterectomy procedures and 10% were admitted for observation purpose for PV leakage, false labour pain, bleeding etc.

Table 7: Demographic Details – Average length of stay

Length of stay	Number	Percentage
1.5- 2 days	60	60%
2.5 -3 days	30	30%
>3 days	10	10%
Total	100	

Figure 4: Demographic Details – Average Length of stay

It was seen that 60% of the respondents had an average length of stay in the hospital for lesser than 2 days. 30% of the respondents had an average length of stay between 2-3 days and 10% of the respondents had average length of stay more than 3 days.

4.2 **IMPORTANCE WEIGHT SCORE**

Though all the service dimensions are said to be important for determining the service quality, the participants in the study showed a varied differences when it came to prioritise the service dimension. The participants were asked to rank the various dimensions of the service quality and weigh them in a such a way that the total sums up to 100. Every respondent was explained the concept of Importance weight for the service quality when the “expectation” set of questionnaires were given to them at the time of admission into the ward.

On collecting the data on the importance weight by the 100 respondents, the ranking obtained was as follows:

Table 8: Average Importance Weight Score

Rank	Service Dimension	Average Importance Weight
1	Reliability	29
2	Responsiveness	21.9
3	Empathy	21.3
4	Tangibility	14.8
5	Assurance	13
Total		100

Figure 5: Average Importance Weight Score

The above chart shows that the respondents showed maximum attachment to Reliability dimension, followed by Responsiveness. Then comes the dimensions of Empathy and Tangibility. The dimension of Assurance was found to have the least importance weight score.

4.3 **PERCEPTION THRESHOLD**

Based on arguments put forth in the work of Hesket, Sasser, Sachlesinger (1997), Azim (2008) put forth 80% as the benchmark as the perception threshold for customer satisfaction. 80% threshold would mean that an perception level score of minimum 4 out of a maximum 5 should be considered for any service dimension and a score lesser than 4 is taken as a non-acceptable level for that service dimension.

4.4 **SERVQUAL RESULTS – THE TANGIBILITY DIMENSION**

The tangibility comprises of the first 9 questions of the SERVQUAL questionnaire, which assesses the respondent's perception towards the physical facilities of the hospital like the equipment, employee, materials, hospital environment etc. The table below depicts a negative gap score for tangibles like employee appearance, maintenance of rooms, temperature maintained in the room, hygiene and cleanliness of the meals served, room atmosphere with the refreshing nature. This means that the perception of the tangibles by the patients in these aspects are lesser than the expected delivery of services. On the other hand, tangibles like the medical equipment, their visual appealing and the lighting in the room have a positive gap score which means the delivery of services in these aspects are more than the patient expectations.

Table 9: SERVQUAL Result - Tangibility

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Tangibility

1	T1	5	4	0.22	4.1
2	T2	4	5	-0.74	
3	T3	4	5	-0.74	
4	T4	4	4	0.07	
5	T5	4	5	-0.71	
6	T6	4	5	-0.66	
7	T7	4	5	-0.63	
8	T8	4	5	-0.67	
9	T9	4	5	-0.59	

In the below table one can see that the average dimension weight for tangibility is found to be 14.8, which is ranked fourth in comparison to other service dimensions. The average unweighted gap score is found to be negative and the weighted gap score which was derived on factoring the important weight with the unweighted gap score is also found to be negative. In both the instances its evident that the dimension of tangibility is not meeting the patient's expectations.

Table 10: Tangibility weighted gap score

Dimension Weight	**14.8**
Average unweighted Tangibility gap score	-0.49
Weighted gap score	-7.31

Figure 9: SERVQUAL Gap score - Tangibility

The average perception SERVQUAL score comes to be 4.1 which is well above the 80% perception threshold.

4.5 **SERVQUAL RESULTS – THE REALIBILTY DIMENSION**

The reliability comprises of six questions from the SERVQUAL questionnaire, which assesses the respondent's perception towards the nature of solving problems, how far the services are delivered promptly and word of mouth communication. The table below depicts a negative gap score for reliable like employee responses to the patients, explanation of medical treatment, availability of family visiting times, scheduling of medical and non-medical activities, solving of problems, working of equipment like AC, fridge, microwave, nurse call button etc. This means that the patient perception on these aspects of reliability does not meet their expectations of services to be delivered.

Table 11: SERVQUAL Result – Reliability

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Reliability
1	RL1	4	5	-0.7	

2	RL2	4	5	-0.6	4.5
3	RL3	4	5	-0.51	
4	RL4	5	5	-0.38	
5	RL5	5	5	-0.38	
6	RL6	5	5	-0.47	

In the below table one can see that the average dimension weight for reliability is found to be 29, which is ranked first and is the most prioritised in comparison to other service dimensions. The average unweighted gap score is found to be negative and the weighted gap score which was derived on factoring the important weight with the unweighted gap score is also found to be negative. In both the instances its evident that the dimension of tangibility is not meeting the patient's expectations.

Table 12: Reliability weighted gap score

Dimension Weight	**29**
Average unweighted Reliability gap score	-0.50
Weighted gap score	-14.69

Figure 7: SERVQUAL Result – Reliability

The average perception SERVQUAL score comes to be 4.5 which is well above the 80% perception threshold.

4.6 **SERVQUAL RESULTS – THE RESPONSIVENESS DIMENSION**

The dimension of responsiveness comprises of three questions from the SERVQUAL questionnaire, which assesses the respondent's perception towards employee giving clear, understandable information, delivery of services being prompt and quick medical treatment given. There is a negative gap score when it comes to rapid medical response given and delivery of services as perceived by the patients which means that their expectations is not met in these subcategories. A positive gap score is seen with respect to clear, understandable information given by the employees to the patients which suggests that their expectations are being met.

Table 13: SERVQUAL Result – Responsiveness

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Responsiveness
1	R1	5	4	0.22	4.33
2	R2	4	5	-0.74	
3	R3	4	5	-0.74	

In the below table one can see that the average dimension weight for responsiveness is found to be 21.9, which is ranked second in comparison to other service dimensions. The average unweighted gap score is found to be negative and the weighted gap score which was derived on factoring the important weight with the unweighted gap score is also found to be negative. In both the instances its evident that the dimension of tangibility is not meeting the patient's expectations.

Table 14: Responsiveness weighted gap score

Dimension Weight	**21.9**
Average unweighted Responsiveness gap score	-1.26
Weighted gap score	-27.6

Figure 8: SERVQUAL Result – Responsiveness

The average perception SERVQUAL score comes to be 4.33 which is well above the 80% perception threshold.

4.7 **SERVQUAL RESULTS – THE ASSURANCE DIMENSION**

The dimension of assurance comprises of two questions from the SERVQUAL questionnaire, which assesses the respondent's perception on the feeling of safety while receiving care and instilling of confidence by the employee behaviour. A positive gap score is seen in feeling of safety by the patient in receiving care whereas a negative gap score is seen in instilling confidence by employees to the patient which means that the expectations of the patient in this subcategory is lesser than their perceived levels.

Table 15: SERVQUAL Result – Assurance

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Responsiveness
1	A1	4	4	0.07	4
2	A2	4	5	-0.71	

In the below table one can see that the average dimension weight for assurance is found to be 13, which is ranked fifth in comparison to other service dimensions. The average unweighted gap score is found to be negative and the weighted gap

score which was derived on factoring the important weight with the unweighted gap score is also found to be negative. In both the instances its evident that the dimension of tangibility is not meeting the patient's expectations.

Table 16: Assurance Weighted gap score

Dimension Weight	**13**
Average unweighted Assurance gap score	-0.64
Weighted gap score	-8.32

Figure 9: SERVQUAL Result – Assurance

The average perception SERVQUAL score comes to be 4 which is the 80% perception threshold.

4.8 **SERVQUAL RESULTS – THE EMPATHY DIMENSION**

The dimension of empathy comprises of three questions from the SERVQUAL questionnaire, which assesses the respondent's perception on individual care given, nurses understanding patient's needs and feeling of discrimination by the hospital staff. A negative gap score is seen in all the three sub categories of the dimension which means that the patient's expectations are not being meet in the service delivery.

Table 17 : SERVQUAL Result - Empathy

S.No	**Code**	**Average Perception Score**	**Average Expectation Score**	**Average Gap Score**	**Average Perception SERVQUAL score for Empathy**
1	E1	4	5	-0.66	4
2	E2	4	5	-0.63	
3	E3	4	5	-0.67	

In the below table one can see that the average dimension weight for empathy is found to be 21.3, which is ranked third in comparison to other service dimensions. The average unweighted gap score is found to be negative and the weighted gap score which was derived on factoring the important weight with the unweighted gap score is also found to be negative. In both the instances its evident that the dimension of tangibility is not meeting the patient's expectations.

Table 18: Empathy Weighted gap score

Dimension Weight	**21.3**
Average unweighted Empathy gap score	-1.96
Weighted gap score	-41.74

Figure 10: SERVQUAL Result – Empathy

The average perception SERVQUAL score comes to be 4 which is the 80% perception threshold.

Table 19: Average SERVQUAL Perception Score

S.no	Dimension	Maximum Score Possible	Average SERVQUAL Perception Score
1	Tangibility	5	4.1
2	Reliability	5	4.5
3	Responsiveness	5	4.33
4	Assurance	5	4
5	Empathy	5	4

The above table summarises the quantitative findings of the respondents towards perception scores. The maximum possible score is 5, which denotes the services delivered are very good. The 80% perception threshold is taken as 4. Its seen that the dimensions of tangibility, reliability and responsiveness exceed the 80% threshold, however the dimensions of assurance and empathy are at the threshold level.

5. DISCUSSION

The present study reveals that the overall perceived SERVQUAL score is more than the threshold level of patient satisfaction. This means that the respondents are generally happy with the level of services being delivered at the hospital. If we look at each service dimension, the gap score of a few subcategories of the service dimension is found to be positive and a few are found to be negative. Consolidated gap score of the five-service dimensions is presented below:

Figure 11: SERVQUAL Gap scores

The negative gaps indicate a scope of improvement is required in the service dimension. On looking at the weighted gaps the dimension of empathy is the has the maximum weighted gap score followed by responsiveness and then

reliability. The hospital needs to provide training to their employees on improving the empathy dimension of service quality as it is the most prioritised by the patients and is felt not to be meeting the service expectations. Seema(2015) stated in her work that the dimension of empathy is very important when it comes to service delivery as the patient satisfaction depends on the trust and dependence the patient puts on the hospital and it is reflected through the employees behaviour which includes the doctors and the nurses. According to the SERVQUAL developers Zeithaml, Parasuraman, and Berry (1990), it is important for the organisational leaders to put into a practice of continually monitor customer's perception to service delivery, identify the causes for the service quality shortfalls and take actions to improve the gaps in the services delivered. So, the present study identifies such areas and the same is presented below.

Table 20: SERVQUAL statement remarks

S. No	Statement	Gap Score	Remarks
1	Tangibility – Medical equipment's appeal	0.22	Exceeds patient's expectations
2	Tangibility- Employee appearance	-0.74	Fails to meet patient's expectations
3	Tangibility – Cleanliness of rooms	-0.74	Fails to meet patient's expectations
4	Tangibility- Lighting in rooms	0.07	Exceeds patient's expectations
5	Tangibility – Room temperature	-0.71	Fails to meet patient's expectations
6	Tangibility- Cleanliness of meals served	-0.66	Fails to meet patient's expectations
7	Tangibility – Taste of meals served	-0.63	Fails to meet patient's expectations
8	Tangibility- Cosiness of rooms	-0.67	Fails to meet patient's expectations
9	Tangibility – Scent in rooms	-0.59	Fails to meet patient's expectations
10	Reliability- Employee responses	-0.7	Fails to meet patient's expectations
11	Reliability- Explanation of Medical treatment	-0.6	Fails to meet patient's expectations
12	Reliability- Family visiting times	-0.51	Fails to meet patient's expectations
13	Reliability- Scheduling of medical and non-medical services	-0.38	Fails to meet patient's expectations
14	Reliability- Problem solving by employees	-0.38	Fails to meet patient's expectations
15	Reliability- Working of equipment	-0.47	Fails to meet patient's expectations
16	Responsiveness- Employee communication in providing information	0.22	Exceeds patient's expectations
17	Responsiveness- Promptness of services delivered	-0.74	Fails to meet patient's expectations
18	Responsiveness- Response time	-0.74	Fails to meet patient's expectations
19	Assurance- feeling of safety	0.07	Exceeds patient's expectations
20	Assurance- Instilling confidence by employees	-0.71	Fails to meet patient's expectations
21	Empathy- Individual care given	-0.66	Fails to meet patient's expectations
22	Empathy- Understanding by nurses / doctors	-0.63	Fails to meet patient's expectations
23	Empathy- No Discrimination faced	-0.67	Fails to meet patient's expectations

It is thus evident that the availability of medical equipment, lighting in the patient rooms, clear, understandable information given by the employees to the patients and feeling of safety meet the patient's expectations and the other dimensions in

the SERVQUAL questionnaire do not meet the expectation of the patients. Hence those areas are to be taken into consideration for a corrective action to increase the patient perception score. The application of the SERVQUAL patient perception instrument and the analysis of the results has revealed that the overall perception of the patients towards the hospital is acceptable and the 19 subcategories with negative gap score need a corrective action to obtain a higher perception score.

Sharma (2015) conceptualised that customer satisfaction and service quality are closely related concepts. The present study suggests the following actions to be taken in Motherhood Hospital to improve the patient experience.

5.1 IMMEDIATE TERM INTERVENTION

Based on the weighted SERVQUAL gap score, we come to know that the dimension of empathy and responsiveness require an immediate term intervention as it was seen to have the maximum weighted gap score (- 41.76) followed by responsiveness (- 27.6) based on the survey results. The intervention areas requiring immediate action for the subcategories having perception scores lesser than the expectation scores are tabulated under:

Table 21: Intervention Area for Immediate Action

S.no	Intervention Area	Gap Score
1	Empathy- Individual care given	-0.66
2	Empathy- Understanding by nurses / doctors	-0.63
3	Empathy- No Discrimination faced	-0.67
4	Responsiveness- Promptness of services delivered	-0.74
5	Responsiveness- Response time	-0.74

For areas related to personal attention, discrimination, understanding of the patients, sensitivity and behavioural training of the employees are required. For areas like the promptness in the services delivered and response time, the organisation needs to relook at the TAT and availability of staffs in between and during the shifts.

5.2 INTERMEDIATE TERM INTERVENTION

Based on the weighted SERVQUAL gap score, we come to know that the dimension of reliability requires an intermediate term intervention as it was seen to have the weighted gap score of (- 14.69) on the survey results. The intervention areas requiring intermediate action for the subcategories having perception scores lesser than the expectation scores are tabulated under:

Table 22: Intervention Area for Intermediate Action

S.no	Intervention Area	Gap Score
1	Reliability- Employee responses	-0.7
2	Reliability- Explanation of Medical treatment	-0.6
3	Reliability- Family visiting times	-0.51
4	Reliability- Scheduling of medical and non-medical	-0.38

	services	
5	Reliability- Problem solving by employees	-0.38

For areas like employee responses to the patients, explanation of the medical treatment to the patients by the doctors and nurses before and after any procedure and problem solving by employees, sensitivity and employee behaviour training are required. A stringent grievance redressal system can be kept in place to solve the problems of the patients with formation of a redressal committee in the hospital. For problems related to the discrepancies in the scheduling of the medical services like the waiting time for admission to get a hospital bed, turn over time to change the saline drips, timely delivery of the medicines, the root cause analysis to be done and reasons for delay to be rectified by the concerned head of the department. In relation to the non-medical services like delivery of meal, housekeeping, a checklist to be maintained tracking the time of order and delivery of the service by the ward nurses and root cause analysis to be done to rectify the reason for delay.

5.3 **LONG TERM INTERVENTION**

Based on the weighted SERVQUAL gap score, we come to know that the dimension of assurance and tangibility require a long-term intervention as it was seen to have the weighted gap score of (-8.32) and (- 7.31) respectively based on the survey results. The intervention areas requiring long-term action for the subcategories having perception scores lesser than the expectation scores are tabulated under:

Table 23: Intervention Area for Long Term Action

S.no	**Intervention Area**	**Gap Score**
1	Assurance- Instilling confidence by employees	-0.71
2	Tangibility – Room temperature	-0.71
3	Tangibility- Cleanliness of meals served	-0.66
4	Tangibility – Taste of meals served	-0.63
5	Tangibility- Cosiness of rooms	-0.67
6	Tangibility – Scent in rooms	-0.59
7	Tangibility- Employee appearance	-0.74
8	Tangibility – Cleanliness of rooms	-0.74

For areas related to instilling confidence by the employees, sensitivity and behaviour training of the employees can be done. For other areas of tangibility, it is easy to intervene and bring about changes like provision of better air conditioning facility 24*7, timely maintenance of the air conditioner to maintain proper cooling, grooming of the employees, timely refreshing of the rooms with room fresheners in between shifts. A checklist can be maintained for the same.

6. CONCLUSION

The findings on the primary study done based on the SERVQUAL tool brought out number of managerial implications that the hospital needs to look into to obtain an increase in the perception score of the patients. Considering that the grievance redressal influences the patient satisfaction, the service requirements and the issues faced by them should be dealt in time and with courtesy, so as to obtain an increase in the perception score. The hospital needs to develop processes and training of the employees to build a strong and long-term relationship with the patients. The present research limits itself to the application of SERVQUAL tool, hence all the limitations of the SERVQUAL model also implies on this study. One of the issues is that the SERVQUAL perception and expectation scores are obtained only after the service is delivered but the expectation scores are formed much before the delivery of services, questioning the reliability of the tool, (Palmer, 2005).Moreover the service expectations of a patient can be based on previous service experience and can expectations can vary from very instances affecting the service expectation score and customers have varied expectations hence this might affect the internal validity of the tool over a period of time. The present study is focused on Motherhood Hospital, which is specialised on mother and childcare, hence the same study can be made broad spectrum by involving more hospitals and specialities.

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