

The Relationship Between the Service Quality and the Patient's Satisfaction in Emmanuel Hospital 2021

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ABSTRACT

Offering service quality in this time of pandemic is very crucial especially in health industry, organizations and companies. This research is about how the quality of health care services of Radiologic Technologist in Emmanuel Hospital should be measured in terms of the patient's satisfaction. Service quality is one of the most important factors to consider during examinations in a hospital. Service quality should always be observed before, during, and after every examination or procedures. Service quality is the basis of patient's satisfaction, whether a patient is satisfied by the service of the Radiologic Technologist in Emmanuel Hospital. This further means that the health care professional catering the service should be aware of the risks and benefits of the procedure done to a particular patient. Radiologic Technologist use several types of equipment to gather images that help physicians diagnose patient ailments and determine the best course of action for treatment thus it is of big importance to make the patient satisfy with every procedure.

I. BACKGROUND OF THE STUDY

The Radiologic Technologist and Emmanuel Hospital providing the health care services should be able to provide a quality health care service to achieve the patient's satisfaction and to enable the patient to feel safe especially in this time of pandemic The Emmanuel Hospital should have a safety coaches in Radiology Department, decreasing human error and minimizing patient harm. It involves observing for safety behaviors and use of error prevention technique and provides immediate feedback. Safety coaches are one of the important components of the comprehensive patient safety program. This research is entitled Service Quality of Radiologic Technologist in Emmanuel Hospital. This research aimed to describe the present service quality performance of Radiologic Technologist workers in this time of pandemic at the mentioned institution and aims to point out how the Radiologic technologist can improve their service quality performance.

Corporate History: Emmanuel Hospital started as a primary private hospital located at San Jose, San Miguel, Bulacan on March 16, 1993, by Dr. Emmanuel Vera, a distinguished surgeon, together with his wife Dr. Evelyn Vera. The Institution established a mission, vision, and objectives that serve as guide to the company to aim its goal. Doctors, nurses, medical technologists, radiology technologists, office personnel, kitchen personnel, security and janitor exhibit a good collaboration that permits an excellent working environment. Year 2015, Emmanuel Hospital was relocated at Old Sta. Rita, San Miguel, Bulacan. It caters 35-bed capacity that renders medical care to people of San Miguel and nearby towns.

Mission: We take exceptional care of the people:

- By providing quality healthcare for the patient's satisfaction.
- By delivering care in a compassionate, respectful, and responsive way.
- By advancing medical knowledge and continuously improving our practices.
- By educating current and future generations of healthcare professionals.

Vision : Emmanuel Hospital will serve as a healthcare resource for the clients in San Miguel, Bulacan and in the provinces, providing the highest quality healthcare with excellent service and respectful manner for individuals.

Objectives: To bring quality of health services in the rural community, a sense of involvement, commitment and responsibility in health where people achieve control and ownership of the means for their health including knowledge and information and well-being and the availability to them of services and technical capabilities to meet health problems as well.

To meet the needs of all clients through the pursuits of excellent healthcare service. Foster a positive, professional image of the hospital to the public and provide all clients at reasonable cost and quality healthcare. Also, to create a positive working atmosphere that encourages individual professional growth and personal satisfaction for all employees.

Statement of the Problem: The purpose of this study is to make an assessment of the service quality of Radiologic technologist in Emmanuel Hospital.

Specifically, it answer the following questions should be brought:

What procedures of Radiologic Technologists are involved in this study?

1. How well is the Attitude of the Radiologic Technologist towards their patient, in terms of:
 - 1.1. The Radiologic Technologist treated you with respect and courtesy.
 - 1.2. The Radiologic Technologist shows concern for your comfort.
 - 1.3. The Radiologic Technologist talks in a nicely manner.
 - 1.4. The Radiologic Technologist knows how to deal with their patients.
 - 1.5. The Radiologic Technologist works calmly and with patients care.
 - 1.6. The Radiologic Technologist attends your need immediately.
2. How knowledgeable and skills oriented the Radiologic Technologist regarding the procedure to be done, in terms of:
 - 2.1. You felt comfortable by the Radiologic Technologist during, before and after the procedure.
 - 2.2. The Radiologic Technologist knows the procedure to be done.
 - 2.3. The Radiologic Technologist performed the procedure without harming you and uses complete PPE.
 - 2.4. The Radiologic Technologist gives you proper instructions on the procedures
3. How satisfied the patients on the performance of Health care workers in Emmanuel Hospital, in terms of:
 - 3.1. You were treated with utmost care.
 - 3.2. You were given an importance as a patient
 - 3.3. You felt safe the whole duration of procedure.
 - 3.4. You will recommend this hospital to others.
 - 3.5. The overall procedure catered by the Health care workers satisfies you.
4. Is there a significant relationships between the service quality and customer satisfaction on Emmanuel Hospital.

Definition of Terms

CT scanner - also known as computed axial tomography, or CAT scan, medical technology that uses X-rays and computers to produce three-dimensional images of the human body.

CT scanning – the method of scanning a particular part of the body of the patient.

Diagnostic imaging – method of taking images that helps in identifying the illness or problem of a patient.

Electromagnetic radiation – radiation in the form of electromagnetic waves such gamma rays, X-rays, ultraviolet light, infrared radiation, microwaves, and radio waves.

Ionize - to undergo ionization.

Ionization – process in which atom or molecule loses or gains electrons, acquiring an electric charge or changing an existing charge.

Medical assistance – treatment catered by medical personnel.

Medical Personnel – a person who works in the medical field.

Ripple effect – a spreading series of effects or consequences caused by a single event.

Patient – a person who needs medical assistance.

Penetrate – to enter or pass through something.

Service Quality - a high level or excellence in providing needs.

Satisfaction - the act of providing what is needed or desired.

Sound waves - an audible pressure wave caused by a disturbance in water or air and carried forward in a ripple effect.

Ultrasound – a method of producing images of the inside of the body by using a machine that produces sound waves which are too high to be heard.

X-ray –a high-energy electromagnetic radiation that can penetrate solids and ionize gas.

X-ray machine – medical diagnostic imaging modality that uses x-ray and film to produce image.

II. RESEARCH METHODOLOGY

This study uses a quantitative study research. A Likert scale is a rating scale used to assess opinions, attitudes, or behaviors. Likert scales are used in survey research because they allow you to easily operationalize personality traits or perceptions. To collect data, we present participants with Likert-type questions and statements and a continuum of possible response. Each item is given a numerical score so that the data can be analyzed quantitatively. 1 – very dissatisfied, 2 – dissatisfied, 3 – Neutral, 4 – satisfied, 5 – very satisfied. We use descriptive statistics in this study to summarize the data we collected in simple numerical or visual form. Likert-type questions can be individually analyzed for deeper insights into specific attributes. The descriptive research method is employed so as to determine the significant relationship between the performance of the company's service quality and customer satisfaction. We opted to use this research method considering the objective to attain is to get the first hand data from the respondents.

The total population of this study consists of (50) fifty patients who availed the service of radiologic technologist in Emmanuel Hospital on the month of April 2021 and (4) four radiologic technologist. The survey questionnaire was used as the main data gathering instrument for this study. It is composed of two types survey questionnaire 1 (for the patients) and survey questionnaire 2 (for the radiologic technologists). It is also composed of two parts Part I - A is respondent's profile it contains age, gender, and the procedures availed of the patients and Part I – B is patients satisfaction survey contains attitude of the Radiologic Technologist towards their patient, knowledge and skills of the Radiologic Technologist regarding the procedure to be done, satisfaction on the performance of Health care workers in Emmanuel Hospital. The questions were structured using the Likert-Scale format. The choices represent the degree if customer satisfaction on quality of services and the performance of Emmanuel Hospital's radiologic technologist. A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research, such that the term (or more accurately the Likert-type scale) is often used interchangeably with rating scale, even though the two are not synonymous. When responding to a Likert item, respondents specify their level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item.

A scale can be created as the simple sum of questionnaire responses over the full range of the scale. In so doing, Likert scaling assumes distances between each item are equal. Importantly, "All items are assumed to be replications of each other or in other words items are considered to be parallel instruments". By contrast, modern test theory treats the difficulty of each item as information to be incorporated in scaling items.

III. RESULTS AND DISCUSSION

Survey Questionnaire No. 1

Part I. A. Respondents Profile

Table 01: Profile Variable of the Respondents in terms of Age

Age	Frequency	Percentage (%)
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20-29	13	26%
30-39	12	24%
40-49	12	24%
50-59	7	14%
60-69	6	12%
Total	50	100%

The table above reveals that ages 20-29 has the highest number of respondents with (26) twenty six percent of the total population, and 60-69 has the lowest number of respondents during the data gathering with a total of (12) twelve percent of the population of the patients surveyed.

Table 02: Profile Variable of the Respondents in terms of Gender

Gender	Frequency	Percentage (%)
Male	10	20%
Female	40	80%
Total	50	100%

The table above signifies that (80) eighty percent of the total respondents are female and only 20 percent composed of male patients.

Table 03: Profile Variable of the Respondents in terms of Procedures

Procedures	Frequency	Percentage (%)
Xray	38	63%
Ultrasound	8	13%
CT Scan	14	23%
Total	60	100%

The table above shows that X-ray has the highest number of procedures done by the respondents with (63) sixty three percent of the total population and Ultrasound has the lowest number of procedures with (13) thirteen percent of the total population.

Part II. B. Patients Satisfactory Survey

Table 04: Profile of Respondents as to different Indicators

Indicators	Mean Average	Description
Attitude of the Radiologic Technologist towards their patient.		
1. The Radiologic Technologist treated you with respect and courtesy.	4.34	Satisfied
2. The Radiologic Technologist shows concern for your comfort.	4.24	Satisfied

3. The Radiologic Technologist talks in a nicely manner.	4.28	Satisfied
4. The Radiologic Technologist knows how to deal with their patients.	4.24	Satisfied
5. The Radiologic Technologist works calmly and with patients care.	4.30	Satisfied
6. The Radiologic Technologist attends your need immediately.	4.28	Satisfied
Knowledge and skills of the Radiologic Technologist regarding the procedure to be done.		
1. You felt comfortable by the Radiologic Technologist during, before and after the procedure.	4.24	Satisfied
2. The Radiologic Technologist knows the procedure to be done.	4.26	Satisfied
3. The Radiologic Technologist performed the procedure without harming you and uses complete PPE.	4.16	Satisfied
4. The Radiologic Technologist gives you proper instructions on the procedures.	4.28	Satisfied
Satisfaction on the performance of Health care workers in Emmanuel Hospital.		
1. You were treated with utmost care.	4.28	Satisfied
2. You were given an importance as a patient.	4.26	Satisfied
3. You felt safe the whole duration of procedure.	4.26	Satisfied
4. You will recommend this hospital to others.	4.46	Satisfied
5.The overall procedure catered by the Health care workers satisfies you.	4.44	Satisfied

the table above shows that in terms of attitude of the Radiologic Technologist towards their patient, knowledge and skills of the radiologic technologist regarding the procedure to be done, satisfaction on the performance of health care workers in Emmanuel Hospital the patients are satisfied.

**Survey Questionnaire No. 2
Part I – A. Respondents Profile**

Table 01: Profile Variable of the Respondents in terms of Age

Age	Frequency	Percentage (%)
20-29	4	100%
30-39	0	0%
40-49	0	0%
50-59	0	0%
60-69	0	0%
Total	4	100%

The table above reveals that ages 20-29 has the total or (100) one hundred percent population of the radiologic Technologist respondents.

Table 02: Profile Variable of the Respondents in terms of Gender

Gender	Frequency	Percentage (%)
Male	2	50%
Female	2	50%
Total	4	100%

The table above signifies that (50) fifty percent of the total respondents are female and only (50) fifty percent composed of male Radiologic Technologist.

Table 03: Profile Variable of the Respondents in terms of Procedures

Procedures	Frequency	Percentage (%)
Xray	4	50%
Ultrasound	1	13%
CT Scan	3	38%
Total	8	100%

The table above shows that X-ray has the highest number of procedures done by the respondents with (50) fifty percent of the total population and Ultrasound has the lowest number of procedures with (13) thirteen percent of the total population.

Part II. B. radiologic Technologist Satisfactory Survey

Table 04: Profile of Respondents as to different Indicators

Indicators	Mean Average	Description
Attitude of the Radiologic Technologist towards the patient		
1. I treated the patients with respect and courtesy.	5.00	Very Satisfied
2. I show concern for the patient comfort.	4.75	Very Satisfied
3. I talk in a nicely manner.	5.00	Very Satisfied
4. I know how to deal with patients. .	4.50	Very Satisfied
5. I work calmly and with patients care.	4.75	Very Satisfied
6. I attend the patient needs immediately.	5.00	Very Satisfied
Knowledge and skills of the Radiologic Technologist regarding the procedure to be done.		
1. I make my patients feel comfortable during, before and after the procedure	5.00	Very Satisfied
2. I know how to do the procedures.	5.00	Very Satisfied
3. I prepare all the needed materials before conducting procedure.	5.00	Very Satisfied
4. I perform the procedure without harming the patient and uses complete PPE.	4.75	Very Satisfied
5. I use the equipment properly.	5.00	Very Satisfied

6. I give proper instructions on the procedures.	5.00	Very Satisfied
Satisfaction on the performance of Health care workers in Emmanuel Hospital.		
1. I treated the patient with utmost care.	4.75	Very Satisfied
2. I give them importance as a patient.	5.00	Very Satisfied
3. I make them feel safe in whole duration of procedure	5.00	Very Satisfied

The table above shows that in terms of attitude of Radiologic Technologist towards patients, knowledge and skills of the Radiologic Technologist regarding the procedures to be done and Satisfaction on the performance of health care workers in Emmanuel Hospital, Radiologic Technologist are very satisfied.

IV. CONCLUSION

Based on the findings, the following conclusion were drawn:

1. The customer is satisfied with the performance and service quality of the Radiologic Technologist in Emmanuel Hospital in terms of the attitude towards their patients, knowledge and skills of radiologic technologist regarding the procedures to be done, and satisfaction on the performance of the health care workers in Emmanuel Hospital.
2. There is a significant relationship between the company service quality and the patients satisfaction.

In light of the findings and conclusions made, the following recommendations offerered:

Patient satisfaction is not a clearly defined concept, although it is identified as an important quality outcome indicator to measure success of the services delivery system of the hospital. Patient evaluation of care is important to provide opportunity for improvement such as strategic framing of health plans, which sometimes exceed patient expectations and benchmarking. The advantages of patient satisfaction surveys rely heavily on using standardized, psychometrically tested data collection approaches. Therefore, a standardized tool needs to be further developed and refined to reflect positively on the main goals of patient satisfaction survey. This literature review provides a comprehensive understanding of determinants of patient satisfaction either dependent or independent variables and compares the magnitude of the effects of various independent healthcare dimensions on overall patient satisfaction. There was a common salient determining factor between the studies which was interpersonal skills in terms of courtesy, respect by healthcare providers in addition to communication skills, explanation and clear information, which are more essential and influential than other technical skills such as clinical competency and hospital equipment. Although feedback from patient satisfaction surveys is an established yardstick for healthcare quality improvement plans, they are still not being systematically and extensively utilized for developing improvement initiatives. Furthermore, it is agreed that a patient satisfaction questionnaire is considered to be a significant quality improvement tool; therefore, detailed description of the different questionnaires that have been used to assess patient satisfaction surveys will be discussed extensively in a separate study. Finally, this review of various elements of patient satisfaction ranging from its measurement, predictors for improving overall patient satisfaction and impact of collecting patient information to build up strategic quality improvement plans, and initiatives has shed light on the magnitude of the subject. It thus provides the opportunity for organization managers and policy makers to yield a better understanding of patient views and perceptions, and the extent of their involvement in improving the quality of care and services. Furthermore, mangers implement effective change by unfreezing old behaviors, introducing new ones, and re-freezing them for better healthcare.

REFERENCES:

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2. <https://www.userfocus.co.uk/articles/datathink.html>
3. <https://www.sciencedirect.com/topics/psychology/likert-scale>

Appendix A – Survey Questionnaire

Survey Questionnaire I

Descriptive Rating						Point Value	Me
Very Satisfied						5	4.5 5.
Satisfied						4	3.5 4.
Neutral						3	2.5 3.
						2	1.5 2.
	5	4	3	2	1		
Attitude of the Radiologic Technologist towards their patient.							
1.	The Radiologic Technologist treated you with respect and courtesy.						
2.	The Radiologic Technologist shows concern for your comfort.						
3.	The Radiologic Technologist talks in a nicely manner.						
4.	The Radiologic Technologist knows how to deal with their patients.						
5.	The Radiologic Technologist works calmly and with patients care.						
6.	The Radiologic Technologist attends your need immediately.						
Knowledge and skills of the Radiologic Technologist regarding the procedure to be done.							
1.	You felt comfortable by the Radiologic Technologist during, before and after the procedure.						
2.	The Radiologic Technologist knows the procedure to be done.						
3.	The Radiologic Technologist performed the procedure without harming you and uses complete PPE.						
4.	The Radiologic Technologist gives you proper instructions on the procedures.						
Satisfaction on the performance of Health care workers in Emmanuel Hospital.							
1.	You were treated with utmost care.						
2.	You were given an importance as a patient.						
3.	You felt safe the whole duration of procedure.						
4.	You will recommend this hospital to others.						
5.	The overall procedure catered by the Health care workers satisfies you.						
Dissatisfied							
Very Dissatisfied						1	0.5 1.

Part I - A. Respondent's Profile

Instruction: Please put a check mark (✓) corresponding to your answer on the space provided.

- Age

<input type="checkbox"/> 20-29	<input type="checkbox"/> 40-49	<input type="checkbox"/> 60-69
<input type="checkbox"/> 30-39	<input type="checkbox"/> 50-59	

- Gender

- Male Female

3. Procedures
 X-ray CT scan
 Ultrasound

Part I - B. Patients Satisfaction Survey

Direction: Please put a check mark (✓) on the space provided on the option chosen.

Verbal Interpretation

Survey Questionnaire II

Part I - A. Respondent's Profile

Instruction: Please put a check mark (✓) corresponding to your answer on the space provided.

1. Age
 20-29 40-49 60-69
 30-39 50-59

2. Gender
 Male Female

3. Radiologic Technologist Specialty of the Procedures Done
 X-ray CT scan
 Ultrasound

Descriptive Rating	Point Value	Mean Scale
Very Satisfied	5	4.5-5.0
Satisfied	4	3.5-4.4
Neutral	3	2.5-3.4
Dissatisfied	2	1.5-2.4
Very Dissatisfied	1	0.5-1.4

	5	4	3	2	1
Attitude of the Radiologic Technologist towards the patient					
1. I treated the patients with respect and courtesy.					
2. I show concern for the patient comfort.					
3. I talk in a nicely manner.					
4. I know how to deal with patients.					
5. I work calmly and with patients care.					
6. I attend the patient needs immediately.					
Knowledge and skills of the Radiologic Technologist regarding the procedure to be done.					
1. I make my patients feel comfortable during, before and after the procedure					
2. I know how to do the procedures.					
3. I prepare all the needed materials before conducting procedure.					
4. I perform the procedure without harming the patient and uses complete PPE.					
5. I use the equipment properly.					
6. I give proper instructions on the procedures.					
Satisfaction on the performance of Health care workers in Emmanuel Hospital.					
1. I treated the patient with utmost care.					
2. I give them importance as a patient.					
3. I make them feel safe in whole duration of procedure					

Part I - B. Patients Satisfaction Survey

Direction: Please put a check mark (√) on the space provided on the option chosen.

Verbal Interpretation