The ultimate goal of producing quality service and product is to achieve customer satisfaction or as Dodwell and Simmons put it, customer's delight. Patient satisfaction is an important component of healthcare quality reflecting health care provider's ability to meet patient's needs and expectations. Aim & Objectives: To identify service domains and parameters to assess patient satisfaction, to design an appropriate tool based on standard guidelines, to assess the satisfaction across the select service domains using the tool and identify the gaps, if any and to suggest measures for improvement based on gap analysis. Methodology: A prospective study using structured questionnaire for the survey to obtain the responses to question items, standardized on selected dimensions. Results: On analyzing the mean value (average) of the average weighted scores of factors of each service domain, it was found that patients are very much satisfied with dietary services over all as it has highest score of 77.1. The other two services housekeeping & linen services have scores of 69.8 & 67.8 over all respectively are far behind. Conclusion: Based on the present study Dietary services are the best among three. Recommendations: There is need to improve housekeeping and linen services.

INTRODUCTION
Healthcare is a service industry. Service as defined by Zeithaml & Bithner refers to the, deeds, processes and performances. Services possess intrinsic qualities; perishability, intangibility, heterogeneity and inseparability which distinguish them from goods. All the intrinsic qualities can be observed in the healthcare. Healthcare has a complex structure, which makes it difficult for the patient and provider to assess. The patient lacks the medical knowledge to assess the quality of care being provided. The patients assess the non-clinical part of the service and these experiences if bad can over-shadow the excellent clinical care received.

The patients and their relatives coming to the hospital not only expect world-class treatment, but also other facilities to make their stay comfortable in the hospital. The concept patient satisfaction is rapidly changing to customer's delight which means the patient not only is cured of his ailments during the hospital stay but also is pleased with the medical knowledge that exists as far as patient satisfaction in our part of the country, is concerned.

A STUDY TO ASSESS THE LEVEL OF SATISFACTION AMONG IN-PATIENTS ACROSS SELECT SUPPORT SERVICE DOMAINS AT A TERTIARY HEALTHCARE TEACHING INSTITUTE, LUCKNOW, INDIA

Management

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ABSTRACT
Background: Patient satisfaction is an important component of healthcare quality reflecting health care provider's ability to meet patient's needs and expectations. Aim & Objectives: To identify service domains and parameters to assess patient satisfaction, to design an appropriate tool based on standard guidelines, to assess the satisfaction across the select service domains using the tool and identify the gaps, if any and to suggest measures for improvement based on gap analysis. Methodology: A prospective study using structured questionnaire for the survey to obtain the responses to question items, standardized on selected dimensions. Results: On analyzing the mean value (average) of the average weighted scores of factors of each service domain, it was found that patients are very much satisfied with dietary services over all as it has highest score of 77.1. The other two services housekeeping & linen services have scores of 69.8 & 67.8 over all respectively are far behind. Conclusion: Based on the present study Dietary services are the best among three. Recommendations: There is need to improve housekeeping and linen services.

KEYWORDS:
Patient Satisfaction, Support Services, Dietary Services, Housekeeping services, Linen Services

INTRODUCTION
Healthcare is a service industry. Service as defined by Zeithaml & Bithner refers to the, deeds, processes and performances. Services possess intrinsic qualities; perishability, intangibility, heterogeneity and inseparability which distinguish them from goods. All the intrinsic qualities can be observed in the healthcare. Healthcare has a complex structure, which makes it difficult for the patient and provider to assess. The patient lacks the medical knowledge to assess the quality of care being provided. The patients assess the non-clinical part of the service and these experiences if bad can over-shadow the excellent clinical care received.

The ultimate goal of producing quality service and product is to achieve customer satisfaction or as Dodwell and Simmons put it, people retention, customer acquisition and retention, and profitability. Within the healthcare industry, competitive advantage is best attained through service quality and customer satisfaction in the minds of customers. Patients demand more information than ever and do not hesitate to switch to other health care providers if they don't obtain satisfaction.

The patients and their relatives coming to the hospital not only expect world-class treatment, but also other facilities to make their stay comfortable in the hospital. The concept patient satisfaction is rapidly changing to customer's delight which means the patient not only is cured of his ailments during the hospital stay but also is pleased with the amenities provided to him by the hospital and its staff during the stay which he fondly remembers after being discharged and longs passionately to avail the services on some other occasion. Woodside et al., found significant association between overall patient satisfaction and intent to choose a hospital again.

Patient satisfaction is an important component of healthcare quality reflecting health care provider's ability to meet patient's needs and expectations. It is one of the established yardsticks to measure success of the services being provided in the health systems. Improvement in support services like dietary services, linen and housekeeping can improve patient satisfaction effectively as these are the services usually neglected in most of the hospitals in India.

The present study aims to measure the satisfaction level of the patients admitted in Sanjay Gandhi Postgraduate Institute of Medical Sciences with regards to the three support service domains i.e. Dietary, Housekeeping and Linen Services to provide a starting point for further research and intervention. It is also likely to decrease the gap in knowledge that exists as far as patient satisfaction in our part of the country, is concerned.

AIM & OBJECTIVES
AIM
To assess the level of satisfaction among in-patients across select support service domains at a tertiary healthcare teaching institute, Lucknow; so as to suggest measures for improvement.

OBJECTIVES
1. To identify service domains and parameters to assess patient satisfaction.
2. To design an appropriate tool based on standard guidelines.
3. To assess the satisfaction across the select service domains using the...
4. To suggest measures for improvement based on gap analysis.

METHODODOLOGY

The study was conducted from December, 2014 to June, 2015 among patients who were admitted in all the wards for a minimum of three days period. The study was descriptive study. The sample size was calculated based on the patients admitted in a year with confidence Interval of 95% and acceptable margin of error as 5%. The sample required was found to be 323. The areas of study include service domains - Dietary, Housekeeping and Linen services. In-patients of Private ward and Isolation room of the respective wards were excluded from the study.

A structured questionnaire was used for the survey to obtain the responses to question items, standardized on selected dimensions. The questionnaire consisted of two parts. Part One has Information capturing demographic details of sample in-patients. Part two has items covering dimensions of attributes representing the services through which the patients transacted.

The responses were rated on a five point Likert's scale of measurement as Excellent, Very good, Good, Fair and Poor. In which a score of 5 was awarded to response Excellent, a score of 4 was awarded to Very good, a score of 3 was awarded to Good, a score of 2 was awarded to Fair and a score of 1 was awarded to Poor response.

Results:

The Sanjay Gandhi Post Graduate Institute of Medical Sciences (S.G.P.G.I.M.S.), Lucknow, Uttar Pradesh, India, a pioneer medical institute and tertiary care super speciality hospital is known for using modern and innovative management techniques. In 2015 hospital catered 91,346 New Patients, 3,73,003 Old Patients, 11,522 Surgeries, 535 Open Heart Surgery, 31,85,816 Investigations, 141 Kidney Transplants and 11 Bone Marrow Transplants.

In this study 62% respondents were male & 38% respondents were female with an exact number of 201 & 122 respectively. 133 people were coming from rural areas (41%), 190 people were of urban areas (59%). The distribution of the population was equivalent in terms of proportion of people coming from all these areas. Out of the 323 respondents, 39 were in the age group of 4-18(12%). For 18-24 age group, there were 27 respondents (8%). From 25-34 age group, there were 48 respondents and from 35-44 age group 48 respondents, each amounting to 15% & 15% respectively. From 45-54 & 55-64 age groups there were 66 & 55 respondents respectively, constituting 21% & 17% respectively. In the age group of 65 & above there were 40 respondents (12%).

Satisfaction with Services

Criteria for mutual comparison of responses - It was done by concept of Weighted Average. Weighted Average is an average in which each quantity to be averaged is assigned a weight. These weightings determine the relative importance if each quantity on the average. Weightings are equivalent of having that many like items with the same value involved in the average. The method of computing is:

1) Multiply each value by its weight.
2) Add up the product of value time weight to get the total value.
3) Add the weight to get total weight.
4) Divide total value by total weight.

Comparison of all the parameters under the sub-head of Dietary services Weighted average for: Personal hygiene of the pantry man was 81.5, Timings of the meal served was 84.5, Cleanliness of the utensils & dishes was 77.1, Quality of the food was 66.3, Quantity of the food was 82.4 and Dietary consultation from dietician was 70.9. Over all higher the weighted average for any parameter the better it is in terms of nearing the ideal situation. But in general, we can say that since all the scores are more than 50, the dietary services rendered to the in-patients are satisfactory. We found that people are most satisfied with the timings of meal served and second highest satisfactory parameter was quantity of food. Here we also found that people are more dissatisfied by the quality of food.

Comparison of all the parameters under the sub-head of Housekeeping services Weighted average for:

- Personal hygiene of the pantry man was 81.5
- Timings of the meal served was 84.5
- Cleanliness of the utensils & dishes was 77.1
- Quality of the food was 66.3
- Quantity of the food was 82.4
- Dietary consultation from dietician was 70.9

First impression of the room after entering is highly satisfactory as its weighted score is 83.4 and the second highest parameter of satisfaction is regarding cleanliness if the hospital ward/room as its weighted average was 78.7 while the cleanliness of the toilets & bathrooms not as much as satisfactory as compared to other ones as it weighted average score is only 48.7. Weighted average for cleanliness of the bed where respondent spent most time was 73.3, for number of repeat cleaning & dusting done (including toilets) the score was 64.7. The higher the weighted average for any parameter the better it is in terms of nearing the ideal situation. But in general, we can say that since all the scores are nearly up to 50, housekeeping services are satisfactory.

Comparison of all the parameters under the sub-head of Linen services Weighted average for:

- Number of bed sheets was 73
- Timings of of change bed sheets was 83
- Quality of bed sheets was 66
- Quantity of bed sheets was 82
- Dietary consultation from dietician was 70.9

The weighted average for quantity of linen provided to respondent was 72.7 and for Nurse's response towards the complaint for changing of linen was 60.7.
linen was 67.9. The higher the weighted average for any parameter the better it is in terms of nearing the ideal situation. But in general, we can say that since all the scores are 50, linen services are satisfactory.

![Figure 4. Satisfaction with Housekeeping Services](image)

**Figure 4. Satisfaction with Housekeeping Services**

Comparison of all the three service domains rendered to the in-patients/respondents:

Mean of Weighted average scores of parameters of each service can be used to deduce appropriate conclusions regarding the services. Dietary service is highly satisfactory as its mean of weighted average scores is 77.1 while the housekeeping service scores 69.8 which is the second highly satisfactory service provided by the hospital. Linen service is not as much as satisfactory as compared to other ones as its mean of weighted average is only 67.8, the higher the mean of weighted average for any parameter the better it is in terms of the ideal situation. But in general, we can say that since all the scores are >50, all the three services are satisfactory.

![Figure 5. Satisfaction with Linen Services](image)

**Figure 5. Satisfaction with Linen Services**

![Figure 6. Satisfaction with the three support services](image)

**Figure 6. Satisfaction with the three support services**

**DISCUSSION:**

The study was aimed for the assessment of in-patient satisfaction across select support services domains viz. dietary service, housekeeping service and linen services at SGPJIMS, Lucknow. The third objective of this study was gap analysis which will be achieved through this segment. This was analyzed through a questionnaire of satisfaction among in-patients.

The sample size of n =323 in-patients include about 62% male & 38% female respondents; the demographic data also reveals that 66% were in the age group of 20 to 59 years which is an economical productive age group. People coming from rural areas are 41% & about 59% people are urban in origin. Researches have shown that female and male have different expectations of the health care system, which may affect their satisfaction with services. Differences in male/female health care providers and patient communication styles may also have an effect on how patients evaluate health care services. Patient satisfaction also varies by age, with satisfaction being highest among people aged 20 or older (66%). The socio-demographic profile itself shows the importance of the hospital because majority of the respondents were in the age group for 20 or more years which is economically productive age group. Rural people do not have large expectations from the hospital besides their medical treatment & provision of basic amenities during the stay at hospital. At least this much is the right of every human being which should be well considered and provided by the Government.

The concept of weighted average was used to compare all the questions of the group to conclude which factor affects more. The timings of meal served and quality of food over all & personal hygiene of the pantry man had weighted average of 84.5, 82.4 & 81.5 respectively. We can conclude that these factors are very much satisfactory on the part of patient perception. Weighted average of cleanliness of the utensils & dishes and nutritional information provided by the dietician are 77.1 & 70.9 respectively which shows that patients up to much extent are satisfied with these factors also but quality of food has lowest score of 66.3, so it needs attention on part of the administration but still the level of satisfaction is quite high.

On analysis we have found that the first impression of the room after entering & cleanliness of hospital room are highly satisfactory as its weighted score is 83.4 & 78.7 respectively while the cleanliness of the toilets & bathrooms not as much as satisfactory as compared to other ones as it weighted average score is only 48.7, it needs much attention on the part of the administration. While cleanliness of bed & repeat cleaning and dusting are nearly satisfactory levels as they have scores 73.3 & 64.7 respectively. The higher the weighted average for any parameter the better it is in terms of the ideal situation. But in general, it is observed that since all the scores are up to 50, housekeeping services are satisfactory.

Weighted average of quality of linen, quantity of linen & nurse’s response towards the complaint of linen change reflect that patients are very much satisfied with these factors as they have scores 75.5, 72.7 & 67.9 respectively. Quality of laundering of linen needs very much attention on the part of the administration as score is as low as 55.4.

On analyzing the mean value (average) of the average weighted scores of factors of each service domains, it is observed that patients are very much satisfied with dietary services over all as it has highest score of 77.1. The other two services housekeeping & linen services have scores of 69.8 & 67.8 over all respectively, in which linen services have least score so it needs much improvement & attention of administration. So, the basic amenities in terms of food quality, cleanliness in toilets & bathrooms, quality of laundering of linen, have a much scope of improvement. Satisfaction level regarding quality of service by nursing staff in the patient dissatisfaction which needs further look into the causes whether it is due to overburden of work or staff needs training towards this. This approach will minimize the non-clinical barriers and will result in the better patient care and patient satisfaction.

**RECOMMENDATIONS:**

This study can be used as a Baseline study for the formulation & implementation of Quality assurance program in the service domains of SGPJIMS, Lucknow. Trend analysis should be done on the basis of documentation to identify the loopholes & efforts should be made to rectify them. It is well understood that the problem areas will vary in every hospital and each institution has its own problem. But such kind of studies if followed sequentially after some interventions to improve patient satisfaction in one hospital will guide the other Public-sector health institutions as a model to develop infrastructural developments. Regarding this hospital there is a scope for improving services in the hospital. Behavior of hospital staff although good but should be improved by conducting special sessions for behavior change communication regularly. Emphasis should be given to improve cleanliness in the hospital especially in the toilets.
BIBLIOGRAPHY