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A Study to "Assess the Factors Affecting the Duration of Hospital Stay Among Patients at Selected Hospitals, Tirupati, AP"

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ABSTRACT

The study aimed find out the association between factors with selected demographic variables, conducted in Ramadevi, Sri Sai Sudha and Sri Maruthi Multi Specialty hospitals, Tirupati. Convenience Sampling Technique used for selected 150 samples. Results revealed that the average LOS (days) for acute 3.7 ± 1.9, subacute 5.2 ± 2.0 and for chronic conditions 26.3 ± 87.3. Hospital stay and its relation with nurses work-behavior and nurse-patient satisfaction were evaluated using multiple correlation i.e., R=0.3, suggesting lower border positive correlation. Associations of factors with selected demographic variables were examined by chi-square test, a significant association between factors affecting LOS with age (>50 years), married patients, illiterates, dependents, income between Rs. 5,001–10,000 and patients belonging to joint family.

Keywords: duration of hospital stay, factors, patients

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INTRODUCTION

Nowadays, the growing demands in health services and the limitation of resources require an effective hospital management. It is well known that differences in the management of patients with the same disease may affect efficiency, safety and quality of care [1]. Length of stay (LOS) is the time interval between date of admission and date of discharge and is used as an indicator to evaluate the hospital resource utilization rate, efficiency, and quality of healthcare services [2, 3].

Healthcare providers have been under much political and managerial pressure to keep LOS in a desirable minimum level to reduce costs without compromising patients' outcome. The LOS reduction level is restricted by factors such as quality and effectiveness considerations and it is important to know more about the factors that play a significant role in decreasing the patients' LOS [4, 5].

REVIEW OF LITERATURE

Freitas et al. (2012), University of Porto conducted a study using hospital administrative data from inpatient episodes in public acute care hospitals in the Portuguese National Health Service (NHS), with releases among years 2000 and 2009, organized with some hospital features. In near nine million inpatient episodes examined a ratio of 3.9% high LOS outliers, accounting for 19.2% of total inpatient days. The number of hospital enduring releases amplified between years 2000 and 2005 and somewhat reduced after that. The proportion of outliers varied between the lowest value of 3.6% (in years 2001 and 2002) and the highest value of 4.3% in 2009. Teaching infirmaries with over 1,000 beds have meaningfully more

outliers than other infirmaries, even afterward change to readmissions and numerous patient features. As high LOS outliers stand for a crucial ratio in the total inpatient days, this should be seen as an important alert for the management of hospitals and for national health policies. As expected, age, type of admission, and hospital type were appreciably associated with high LOS outliers. The percentage of high outliers does not seem to be related to their financial coverage; they should be studied in order to highlight areas for further investigation [6].

Gruenberg and Shelton (2006) conducted a study at Albany Medical Center, Albany, NY to identify and categorize the factors associated with prolonged stays in the intensive care unit and to illustrate briefly the nonmedical interventions to date designed to reduce length of stay. Results showed that the emerging consensus is that length of stay in the intensive care unit is exacerbated by several increasingly discernible medical, social, psychological, and institutional factors. At the equivalent time, numerous nonmedical, untried involvements have been calculated to decrease span of break. Interventions concerning palliative care, ethics consultations, and other methods to increase communication between healthcare personnel, patients, and patients' families may be helpful in decreasing length of stay in the intensive care unit [7].

Objectives

- To assess the factors affecting the duration of hospital stay
- To find out the association between factors with the selected demographic variables

METHODOLOGY

A descriptive research design was adopted to assess the Factors affecting the duration of hospital stay among 150 patients at selected hospitals, Tirupati, AP. The study was conducted at Ramadevi, Sri Sai Sudha and Sri Maruthi Multi Specialty Hospitals, Tirupathi. Formal permission was obtained from the concerned authorities for conducting the study by convenience sampling technique.

Data Analysis and Interpretation

It was planned to analyze the data by using descriptive and inferential statistics.

Frequency and Percentage Distribution for Demographic Variables

Majority of samples were males 92 (61%), majority were in the age group of 50 and above years 67 (45%), married patients 116 (77%), illiterates were 53 (35%), were daily wage workers 47 (31%) and Government employees were 41 (27%), monthly income was between 5001 and 10000 for 62 (41%), 76 (51%) belongs to joint family, 108 (72%) were residing at urban area, and most of the samples were Hindus 131 (87%).

Table 1 shows the average LOS (days) for acute 3.7 ± 1.9, subacute 5.2 ± 2.0 and for chronic conditions 26.3 ± 87.3.

Table 1. *The mean and SD for factors affecting length of stay.*

Type of disease	Mean	SD
Acute	3.76	1.92
Subacute	5.22	2.04
Chronic	26.39	87.36

- Hospital stay and its relation with nurses work-behavior and nurse-patient satisfaction were analyzed by using multiple correlation i.e., R=0.3, indicating lower border positive correlation.
- The study results showed a significant association between factors affecting LOS with age (>50 years), married patients, illiterates, dependents, income between Rs. 5,001–10,000 and patients belonging to joint family.

DISCUSSION

In the present study the average LOS (days) for acute 3.7 ± 1.9, subacute 5.2 ± 2.0 and for chronic conditions 26.3 ± 87.3, and showed a significant association between factors affecting LOS (days) with age (>50 years), married patients, illiterates, dependents, income between Rs. 5,001 and 10,000 and patients belonging to joint family. Supporting the study by Saxena et al. (2016) revealed that the mean age was 58.4 + 12 years; ranging from 23 to 86 years. Of the total 55 stroke patients, 32 (58.2%) were males and 23 (41.8%) were females. Twenty-three (41.8%) of 55 stroke patients had length of stay (LOS) in hospital ≥7 days [8, 9]. As per the study done by Amritha and Badgal (2015) supports the present study, results revealed that the mean age was 56.15 years, 62 (62%) were males, 38 (38%) were females, 55 (55%) from rural area, 45 (45%) were from urban areas, 12 (12%) were single, 78 (78%) were married, and 10 (10%) were widowed [10].

Hospital stay and its relation with nurses work-behavior and nurse-patient satisfaction were analyzed by using multiple correlation i.e., R=0.3, indicating lower border positive correlation, which shows nurses work behavior and nurse patient satisfaction is influencing on duration of hospital stay among patients.

Recommendations

- Further studies can be conducted with larger sample.
- Longitudinal study can be conducted for better generalization of the findings.

CONCLUSION

Length of stay is one of the most important indicators of various factors of the factors. This study concluded that LOS is prolonged in age group of patients i.e. >50 years due to associated co morbidities, and were mostly married, illiterate patients have prolonged LOS in view of lack of insight into the graveness of illness and more likely to fail to adhere to their dosage schedule, patients with income between Rs. 5,001 and 10,000 had more stay as they were insured by Government schemes and patients belonging to joint family were supported by other family members.

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