

## A Study on Contract Nurse Staffing as a Cost Containment Measure in a Tertiary Care Teaching Hospital.

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### Abstract:

**Background:** The cost of nursing human resources is rising. There is a need to control cost of human resource on nursing staff in health care industry.

**Objective:** To decrease the cost pertaining to nursing human resources in tertiary care hospital.

**Method:** The present study was conducted in NIZAM'S INSTITUTE OF MEDICAL SCIENCES, a tertiary care teaching hospital, Hyderabad, Telangana, India. The study design adopted was retrospective for the time period of 6 months between July 2014 and December 2014 using descriptive statistics.

Data was collected from Human Resource Department, Nursing Superintendent and from Claims section. Nursing strength and their distribution was obtained from the Human Resource Department and Nursing superintendent while their payment data was collected from the financial claims. In addition, the requirement of registered nurses were calculated as per INC norms. The cost of human resources by employing contract nursing staff can be reduced and the benefit obtained was calculated.

**Keywords:** cost containment, nursing staff, registered nurses

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### I. Introduction

In an era of restricted health care funding and rising health care costs, hospitals have been compelled to restructure work environments, attempting to deliver health services at lower costs without decreasing the quality of care.<sup>2</sup> Innovative methods of organizing, administering, and delivering health services are required to control the trend in rising costs in all health care sectors. Healthcare organizations should encourage nursing managers to incorporate business into their traditional role.

Cost accounting and cost containment within nursing makes identified costs more manageable and increases business and efficiency. Administrators reviewing such cost breakdowns can evaluate nursing and other departments more effectively and market specific services more competitively. Controlling nursing cost in hospitals by using cost containment method by studying the current trends and budget accounting for nurses in NIMS hospital and reviewing it by decreasing the senior registered permanent nurses who claim bigger salaries and substituting them with junior registered nurses.

Cost containment has assumed a special prominence in hospitals, becoming both a social and political necessity in the hospitals. Capital effectiveness involves technology assessment and other means of deciding how to make the most of the hospitals revenue. Cost containment approaches should not compromise value in health care. Cost containment efforts should focus on reducing redundancy and waste, improving communications, improved data management, and improved delivery of excellent value in health care.

The salary budget for NIMS staff is nearly around 7 corers per month, of which nurses salaries of 645 nurses is around 2.5 cores occupying nearly 36 per cent of the budget. Hence cost containment method applied in nursing budget will be useful as it has huge number of staff, which can be controlled by recruiting more number of registered nurses temporarily in contract services.

### II. Methodology

The present study is conducted in Nizam's Institute of Medical Sciences, a Tertiary Care Teaching Hospital, Hyderabad, Telangana, India. The study design adopted was retrospective for the time period of 6 months between July 2014 and December 2014, analysed using descriptive statistics

Data is secondary type data and was collected from HRD and from claims section. Nursing strength and their distribution was obtained from the nursing superintendent while their net payment was collected from the financial claims. While calculating budget the maximum salaries per grade were taken into consideration, in addition to that the requirement of registered nurses were calculated from the INC norms

The Nurse-Patient Ratio As Per The Norms Of TNAI (Trained Nurses Association of India) and INC (The Indian Nursing Council, 1985).

### III. Observations :

The following observations were made.

The total number of nurses in NIMS grade-wise is show in the table-1. The number of Nursing Superintendent Grade-2 is 2.The Total number of Staff nurses is 377,while the senior and junior ANM were 24 and 13 respectively, while the internees and temporary contract nurses constituted 198.

**Table-1: Total No Of Nurses In Nims Grade Wise**

S.No	Grade	Total
1	Nursing Superintendent Grade -2	02
2	Head Nurse	39
3	Staff Nurse	377
4	Senior ANM	24
5	Junior ANM	13
6	Senior Internee	52
7	Junior Interne	49
8	Contract Nurses	97
9	Total	656

**Table-2: Grade Wise Salary**

Grade	Maximum	Minimum
Superintendent	67,314	64,730
Head Nurse	63,933	61,499
Staff Nurses	51,644	38,855
Junior ANM	41,270	29,825
Senior ANM	42,089	41,270
Junior Internee	8,000	8,000
Senior Internee	9,500	8,500

**Table -3: Present Nursing Budget Approximately Considering Highest Salaries Grade Wise**

Superintendent	2 X 67314	1,34,628
Head Nurses	39 X 63933	24,93,387
Staff Nurses	377 X 51644	1,94,69,788
Junior ANM	13 X 41270	5,36,510
Senior ANM	24 X 42089	10,10,136
Junior Interne	49 X 8000	3,92,000
Senior Internee	52 X 9500	4,94,000
Contract Nurses	100X 9000	9,00,000
Total Max Budgeted Assumed		2,54,30,449

**Table-4: Nursing Care and Staffing Review**

Special Ward – Neuro Surgery, Cardio Surgery, Neuro Medicine, Spinal Injury, Emergency Wards Attached To Casualty 1:3
General Wards Staff Nurse: 1 For 3 Beds In Teaching Hospital & 1 For 5 Beds In Non Teaching Hospital +30% Leave Reserve
Intensive Care Unit For Each Shift:(I.C.U)- 1:1 Or (1:3 For Each Shift)+ 30% Leave Reserve
Operation Theater, Major – 1:2 Per Table, Minor – 1:1 Per Table
Department for OPD :1Staff Nurse For 100 Patients(1:100)+30% Leave Reserve

Current Budget Rs-2,50,00,000/month approximately

Average net pay of nursing superintendent grade 2 was Rs-65,000/month approximately while net pay of head nurses were taken as Rs- 64,000/month considering the maximum salary given to a head nurse. Average net pay of salaries for permanent staff was calculated was Rs- 50,000/month and average pay give to contract nurses was Rs-8,500/month. All figures were rounded to zero in order to avoid confusion in projecting numerical figures.

Dividing the Staff Nurses and contract registered nurses in 60 : 40 Ratio

Total Nurses In NIMS nearly 656

15 staff nurses and 5 head nurses allotted to nursing school excluding them nurses providing services to NIMS hospital are 636 out of which 34 are head nurses, 2 are nursing superintendent grade 2.

**Table -5 Proposal Plan Of Budget With 60:40 structure Accounts For**

Nursing Superintend Grade 2	2 X 65,000	1,30,000
Head Nurses	39 X 64,000	24,96,000
Senior Nurses	360 X 50,000	1,80,00,000
Contract Nurses	240 X 8,500	20,40,000
Total		2,26,66,000

**Table-6 Total Budget By Assuming The Proposal 50:50 Ratio**

Nursing Superintend Grade 2	2 X 65,000	1,30,000
Head Nurses	39 X 64,000	24,96,000
Permanent Nurses	300 X 50,000	1,50,00,000
Contract Nurses	300 X 8,500	25,50,000
Total		2,01,76,000

**Table-7 Total Budget By Assuming The Proposal Of 40:60 Ratio**

Nursing Superintend Grade 2	2 X 65,000	1,30,000
Head Nurses	39 X 64,000	24,96,000
Permanent Nurses	240 X 50,000	1,20,00,000
Contract Nurses	360 X 8,500	30,60,000
Total		1,76,86,000

**Table-8 Approximate budget accounting for nursing if all the nursing staff is recruited under permanent staff**

Considering Rs-29825/month as minimum net pay of salary given to permanent staff nurse in NIMS during the financial year and taking maximum net pay of salary for each grade.the maximum budget accounts for nurse staffing is Rs-2,94,15,171/month

Superintendent	2 X 67314	134628
Head Nurses	39 X 63933	2493387
Staff Nurses	377 X 51644	19469788
Junior ANM	13 X 41270	536510
Senior ANM	24 X 42089	1010136
Recruiting contract nurses into permanent staff	198x29825	5905350
Total		2,94,15,171

#### **IV. Discussion:**

Hospital administration in view of increasing attention to costs, hospital policy has resulted in reorganized nurse staffing, including fewer registered nurses and the replacement of professional nurses with unlicensed assistive personnel. Hospital administrators expected that this strategy would decrease hospital expenditures.

However, the evidence evaluated here suggests that reducing registered nurses may significantly decrease quality of care and increase hospital costs and loss. Decisions about nurse staffing levels should be based on sound evidence to ensure that appropriate numbers of skilled nursing staff are available to achieve safety standards and optimum patient outcomes. Patient quality care should never be compromised by decreasing the budget, hence it is highly recommended not to affect patient care. The availability of RNs and their professional nursing skills may also influence patient length of stay (LOS) and hospital costs. Several researchers analyzed the relationship between nurse staffing and LOS. By increasing the number of RNs and providing more RN hours per patient day, patient LOS decreased

In the past, concerns about quality of patient care led many hospitals to be wary of temporary nurse staffing, on the premise that nurses who are less familiar with a hospital's or unit's practices and procedures could inadvertently contribute to an increase in the rate of adverse events, such as patient falls or medication errors. Nurse leaders also have questioned whether use of temporary nurse staffing could detract from continuity of care and team communication, thereby affecting patient outcomes.

After analyzing data about 1.3 million patients and 40,000 nurses at more than 600 hospitals, researchers from the University of Pennsylvania School of Nursing concluded that these concerns are unfounded. In order to decrease the nursing budget it's better to adopt a system where a hospital should recruit extra number of registered nurses only in contract bases who work for low salaries.

Further it was also observed that nurse cadre strength was not up to the mark as per INC and TNAI, especially in acute areas like ICU's and post op wards, a total deficient of 201 nurses was noted. Deficiency of nurses in acute areas is not welcomed in any health care organisation, as it will directly affect the patient care and also job dissatisfaction among nurses due to increase in work load which in turn effects the quality of patient care. Hence application of cost containment method in human resource staffing especially nursing cadre is very much useful by recruitment of the deficient number of nurses required to provide quality care on contract basis rather than on permanent staff.

#### **V. Recommendations:**

Based on data analysis, the following recommendations for hospital administration, nursing administration, and on-going research are provided to advance our understanding of the impact of staffing on cost.

In view of decreased strength of nurses in providing care it is recommended to take contract registered nurses and give them training in different parts of the hospital for 3 months, and allot them towards especially in ICU's and critical area, in order to improve patient quality care thus reducing loss and increasing the patient turnover of hospital which increases hospital profit by huge margin when compared to the budget which slightly increase in recruiting in contract registered nurses.

Hence a policy has to be adopted while recruiting nurses, a balance has to be maintained between more experienced permanent staff and contract nurses without affecting the patient quality care.

Each ward in turn has to be balance by one head nurse, one staff nurse, one or two registered nurses depending upon the bed strength

A roster has to be in a balanced way so that there have to be continuous rotation for registered permanent staff and registered nurses (contract) in day and night duties, in addition to holidays.

A senior staff nurse should be always supervising junior and senior nurses. A senior staff nurse will be more experienced but have little efficiency due to age factor which could be well balanced by recruiting young contract registered nurses who have more efficiency and more enthusiastic. This combination of permanent staff nurse and contract nurse will also help in training young nurses into well trained efficient nurse whose services can be used in future.

#### **VI. Conclusions**

The present study is only descriptive analysis and the author doesn't have any competitive interest. This study only focus upon the cost containment of human resources in a health care organisation with variable combinations of permanent staff nurses and contract registered nurses in different percentages. However further intervention study has to be conducted in order to assess the acceptable combination or percentage of the temporary registered nurses in tertiary teaching care hospitals.

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