

A study on Factors Responsible for Occupational Stress of ICU Nurses

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Abstract: *The health care sector is witnessing a sudden paradigm shift in last ten years. Till few years ago, health care was taken off by private practitioners, Government hospitals and some multi/super specialty hospitals. Today this sector is of US\$36 billion and growing with 15% per year. In this sector nurses are playing crucial role in delivering health care for patients. Because of criticality, many patients now are getting admitted in ICUs. Nurses working in ICUs are facing difficulties in handling situations in ICUs. The present study is an attempt to find out the factors responsible for increasing occupational stress of ICU nurses. Data from 153 ICU nurses were collected and analysed with help of statistical tools. Duty hours, delay in decision making, night duties and non cooperation from other departments are responsible factors for high occupational stress level in case of ICU nurses.*

Key words- Health care delivery, Occupational stress, decision making, disease criticality.

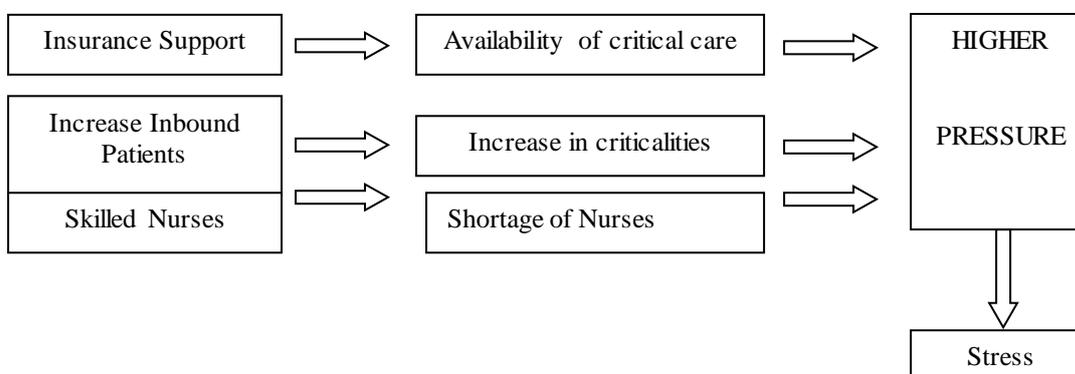
Introduction

1.1 Introduction of health care sector-

The health care sector is witnessing a sudden paradigm shift in last ten years. Till few years ago, health care was taken of by private practitioners, Government hospitals and some multi/super specialty hospitals. Today this sector is of US\$36 billion and growing with 15% per year. Some corporate groups like Reliance, Aditya Birla & Wockhart has started building chain of multi and super speciality hospitals in different cities of India with advanced equipment and big intensive care

units. In past, it was very common that patients in critical condition were taken home because of paucity of funds. However, with availability of support in the form of medi-claim facilities provided by insurance companies, majority of patients are continuing their treatment. This fact is increasing admission in ICU's day by day. ICU nurses are one of the most important elements in health care delivery systems. Shortage of skilled nurse in ICU and the role these nurses are performing in ICU is responsible for putting pressure of work on them. This leads to increase in stress levels of nurses working in ICU's.

[1] Journal of Health Management, January, 2011 Report on Growth Opportunities of Hospital Sector in India.



1.2 Current Healthcare Scenario-

WHO Report (2007) Health sector reform is inadequate without effective management of services of hospitals. WHO suggested that key component of health care system strengthening is enhancing the management capacity within healthcare delivery system. Application of scientific management principles and emphasis on effectiveness and efficiency in management of

health services systems around the world has not received serious attention.

Kavya Sharma & Sanjay Zodpe (2011) the health care industry is growing continuously & reaching to the figure of 10-12%.

The administrative & management complexities of a Hospital are increasing day by day. The stress on hospital staff is increasing continuously.

Chung – Kul Ryu (2012) big hospitals with greater number of beds & medical specialists have shown greater revenue per medical specialist despite the smaller no. of patients per medical specialists. The big hospitals with greater no. beds & specialists are having higher profitability.

Ferline and Shortell (2001) Hospitals must improve on factors like patient safety, cost of medication and quality of health care to stay in competition. Skilled and innovative employees will help hospitals for the same in rapidly changing environment in health sector.

1.3 Introduction of stress Management

Stress is a term heard so often that its meaning is frequently distorted and its implications are taken for granted. In today's world, everybody seems to be talking about stress not only in daily conversation, but also through television, radio and newspapers. Right from the beginning of civilization, human organism is subjected to stressful events; and it is self-evident that birth itself is stressful like other biological milestones such as crawling and walking. Infants also experience stress although independent of their own action in which aversive or defensive coping behaviour (such as crying are likely result. For the pre-school child, environment plays an important role in experiencing stressful events. Stressful experience may exert different effects at different events. Stressful experience may exert different effects as different ages. Almost any unanticipated happening or an anticipated event, with full of threat, causes the speeding-up of bodily processes. Any kind of excitement is also a stress, in the physiologist's sense of interpretation. The term 'stress' means different things to different people; and the layman and professional alike are familiar with it.

The term 'stress' has been derived from technical sciences where it indicates an excessive and detrimental overloading of objects. Metals like steel have a certain strain capacity, but on exceeding certain values, a rupture or fracture occurs. The term was used in this sense in the nineteenth century; in the beginning of the twentieth century, the concept appeared in medical sciences to indicate overloading of the human body. Cannon (1935) related it to homeostatic tendencies in the body. He contributed much to the development of psychosomatic and socio-biological medicine; a lot of knowledge was accumulated about the relation between stress and the development of somatic disorders like cardiovascular diseases. Selye (1956) believed that if sympathetic nervous system and endocrine system are activated in a certain way, for example, by extreme coldness or great excitement an individual can be said to be under stress. Extreme stimulations of a divergent nature bring about a certain typical endocrine reaction pattern. Specific stimulations are not connected with specific

reactions; stress can be induced by many different means. Actually, Selye was not particularly interested in the causes (stimuli); more important to him was the universal reaction pattern (General Adaptation Syndrome or GAS) occurring in characteristic phases.

Generally, the determinants of stress include:

- (a) Personality characteristics;
- (b) Role overload;
- (c) Role conflict;
- (d) Role ambiguity;
- (e) Role stagnation and mid-life crisis;
- (f) Absence of social support; and
- (g) Role incompatibility.

2 Research objectives:-

The research has following objectives:

- (a) To study the job responsibilities of ICU Nurses.
- (b) To find out the stress drivers for nurses working in ICU's of Hospitals

3 Research Methodology

3.1 Descriptive Research Design:

Descriptive research helps to study the problem from all possible angles. Objective of descriptive research is describing the nature of problem in its present state. Descriptive research will help in finding answers for questions like who, when, where, why and how.

3.2 Population definition:

Hospital industry is selected for this research. It includes 22 multispecialty hospitals in Pune city. The research study has considered the population of enquiry of two components. These components are the function of no. of multispecialty hospitals in Pune city which is 22. Researcher has selected 2 hospitals from each assembly segment of Pune city. There are 6 assembly segments in Pune city. So total hospital taken for the study is 2 hospitals from each assembly segment x 6 assembly segment = 12 hospitals.

The first component is nurses working in intensive care units of multispecialty hospitals in Pune city. Researcher on enquiry, it was found that average nurses per hospital working in ICUs are 20. Thus, the no. nurses working in multispecialty hospitals are $20 \times 12 = 240$. The second component is of nursing and administration heads. On an average each hospital has one nursing head and one administration or HR head. Thus, the respondent's no. shall be around $12 \times 2 = 24$. 12 nursing heads and 12 administration/HR heads were subject of enquiry.

3.3 Sample Size:

The population of nurses working in ICU's of multispecialty hospitals is 300. Researcher has

calculated sample size by considering 5% significance level.

Total no. of hospitals	Average no. of nurses working in ICUs per hospital	Population	Sample Size
20	12	240	153

3.4 Sampling Method:

Sampling is nothing but selecting some part from population which represents all characteristics which is present in population. Sampling will help researcher to get all information about population.

Researcher has used convenience sampling method.

4 Data Analysis

Daily 14% nurses are spending 8-9 hours in hospital. 16% nurses are spending 9-10 hours in hospital while 48% nurses are spending 10-11 hours in hospital daily. Everyday 23% nurses are spending more than 11 hours in hospital in response to the question of how many hours you are spending in hospital.

For making job related decision group member participation has helped or not, 20% nurses feels that group members' participation has not at all helped. 8% of nurses feels that group members participation has helped somewhat. 40% of nurses said it has helped. 32% of nurses feels that group participation has moderately helped while only 1% of nurses said group participation has highly helped for decision making.

In response to the question for making job related decisions training has helped or not, 48% nurses were of the opinion that it has not at all helped them while 37% of nurses were of the opinion that training has helped somewhat. 21% of nurses agreed that training has helped. 3% of nurses said training has moderately helped while only 2% of nurses were of the opinion that training has highly helped them.

In response to the question of how many night duties you are doing in a month, 13% nurses said that they are doing 0-2 nights per month in hospital. 27% nurses said that they are doing 3-4 nights per month in hospital while 32% nurses said they are doing 5-6 night per month in hospital. 14% said they are doing more than 9 nights per month in hospital.

To the question how many night offs you are getting in a month from hospital, 29% nurses are getting 0-2 night offs per month and 30% nurses are getting 3-4 night offs per month from hospital. 14% nurses are getting 5-6 night per month while

12% nurses are getting more than 9 nights offs per month from hospital.

About rating the level of support you have received during work from nursing departments, 5% nurse has registered their strongly disagreement about support they have received from nursing department while 33% nurses has registered their disagreement for the same. 15% nurses were neutral about support they have received from nursing department. On the contrary a 37% nurse has agreed and only 10% nurses has strongly agreed about support received from nursing department.

To the question that are you getting time for personal assignments from your daily schedule. 63% nurses said they never get time for personal assignments from their daily schedule while 29% nurses said sometimes they get time for personal assignments from their daily schedule. 8% said they are getting a lot of frequent time for personal assignments from their daily schedule.

When asked about need of training on handling stressful situations. 93% nurses said yes that they need training on handling stressful situations while only 7% nurses said they don't need training on handling stressful situations.

5 Findings And Conclusions

1. It is found that 64% nurses are working in ICU continuously from the last 2 years. That indicates that nurses are exposed to stressful situations regularly. This factor of working more than 2 years in ICU is definitely responsible for reducing interest of nurses in their jobs.
2. Majority of the nurses are spending more than 10 hours per day in hospitals that mean they are spending at least 1 hour extra in ICU. This is putting extra burden on their health; physical as well as mental, which leads them to high stress levels. Nurses are spending time also on commutation.
3. ICU nurses are handling duties like planning for calling the Medical Officers, Consultants and relatives of the patients. ICU nurses are also supervising different activities such as cleaning, movement of patients, etc. They are reporting to seniors about patients' health as well as their recruitments. ICU nurses are coordinating laboratory, Radiology Department for collection reports. That's why nursing working in ICU should have proper managerial skills.
4. The majority of ICU nurses are not making decision related to the job activities on the basis of past experience and gut feeling. This clearly indicates that facts like training programmes, training manuals and group members are not helping ICU nurses in decision making related to job activities.

Training programs arranged for ICU nurses are not effective. Training manuals distributed amongst ICU nurses are not helping them for solving their problems related to job activities. Group members means other nurses in ICU are also too busy in their jobs. So group members are also not in position to help their ICU colleagues.

5. 29% nurses are getting 7 and above night duties per month. That indicates that ICU nurse are performing 2 night duties per week.

At the same time 60% nurses are getting only 4 nights offs and 18% nurses are getting only 2 nights off per week. This proves that ICU nurses are not getting night offs after each night duty which is dangerous for their health. This is also an important factor for rising stress levels in case of ICU nurses.

6. It is observed that ICU nurses are not happy with laboratory, Radiology & Stores Department because they are not getting investigation reports of patients in time. This is putting extra pressure on ICU nurses. Consultants will demand investigation report for analyzing the action of the treatment of the patients from ICU nurses. This type of situations are increasing the stress levels of ICU nurses not getting the required material for the stores and maintenance are also responsible for adding pressure on ICU nurses. Repair of machines, replacements of machines, late material delivery and non availability of materials are going to affect the patient's care which is dangerous for patient's life. But, it is found that factors like Consultants, sanitation and security are helping ICU nurses. Department of Nursing is also supporting ICU nurses in job related activities.
7. It is observed that job rotation policy is not used in many hospitals as per the data received, 67% ICU nurses said that there is no job rotation policy and they are working in ICU from last 2 years continuously. This indicates that ICU nurses are continuously

exposed to stressful situations in Intensive care units .no change in job for ICU nurses are leading to reduce the interest in job.

8. It is reported that more than 50% ICU nurses are regularly facing problems like anxiety mood swing sweating anger control and headache. Very few nurses reported that they are suffering from problem of chest pain. This indicates that nurse's working ICU's are facing problem related to physical as well as mental health. This is dangerous for hospital .if the ICU nurses are not well, they will not respond to duties.icu nurses will redline rest for remaining fit for the job. It will become more challengeable for hospital in this situation to provide alternative arrangement.
9. It is found that 91% working in ICUs never or sometimes get time for personal assignment. These nurses are unable to give time for family member as well as friends. ICU nurses are trying to spend time with their children in studies. They are finding difficult to allot time for their fitness also. This shows that ICU nurses are spending more time in hospital and commutation.
10. More than 93% ICU nurses wants' training on handling stressful situation indicates that they are facing problem of high stress level.

Conclusion-

Nurses working in ICUs are facing problems of high occupation stress level. This high level occupational stress is result of daily working schedules of ICU nurses in hospitals. Hospitals are not using job rotation policies effectively which will help ICU nurses to get comparatively lighter duties in wards.

Nurses needs training about handling stressful situation which very frequently they are facing in ICUs. ICU nurses are depending upon allied departments of hospital for investigation report and other services. Cooperation from theses departments are not up to expectation level which results in increasing occupation stress of ICU nurses.

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