Level of stress among the nurses working in Intensive care units.

Mrs. Manisha N. Pawar,
Prof. cum Vice-Principal.
Terna Nursing College,
Nerul, Navi Mumbai.
Manisha.pawar08@rediffmail.com

Research abstract
In the present study Non experimental descriptive survey approach with typical descriptive design was to assess the level of stress among the nurses working in intensive care units in selected hospitals of Navimumbai with a view to develop an health educational pamphlet on stress management. Simple random sampling technique was used for the selection of 50 ICU staff nurses. The researcher modified the expanded nursing stress scale to assess the level of stress among the ICU nurses. The health education pamphlet was developed by the researcher to distribute it among the ICU nurses. The data gathering process began from 20th September to 10th October 2012. Descriptive and Inferential statistics had been used for data analysis. The overall findings revealed that majority 42% of the sample had severe stress. A highly significant association was found between the level of stress and the demographic variables, thus supporting the hypothesis. Hence the researcher emphasizes and concludes that stress alleviating programs should be conducted for the nurses and personality training should be offered and more research studies to be carried out in finding out the effectiveness of the relaxation program.

Introduction
Workplace stress has long been recognized as a challenge for the nursing profession. Stress also occurs when there is a constant desire to achieve only the best. Stress has been the growing concern among health care professionals, especially nurses. The working environment of Intensive Care Unit (ICU) is a constant source of stress for nurses working there. Critical care nurses practice in a complex assessment, high intensity therapies and continuous nursing vigilance. Nurses constantly experience a stressful environment because of the complex nature of patient’s health problems requiring an extensive use of very sophisticated technology. Nurses not only have to cope with the sophisticated technology but also regularly face ethical dilemmas concerning issues of patient care management. The change in Health care delivery has also created new nursing roles and responsibilities and has also contributed to the source of stress. Stress occurs when nurses try to manage patient’s nursing care within the scope of nursing. Studies conducted among nurses have revealed that stress affects the level of job satisfaction and in turn influence the quality of care, hence it was found necessary to assess the level of stress among the intensive care nurses.

Statement of the problem
A descriptive study to assess the level of stress among the nurses working in intensive care units at selected hospitals in Navimumbai, with a view to prepare health educational pamphlet.
Conceptual framework of this study is based on Betty Neumann's health system model. Neumann uses selve's definition of stressors as tension producing stimuli with the potential of causing disequilibrium. This is a complex system model focuses on stress reaction and its reduction.

Review of literature

Studies related to
- Nature of stress
- Effect of stress among ICU nurses
- Job stress among ICU nurses
- Management of stress among ICU nurses

Materials and methods

Non experimental descriptive survey approach with typical descriptive design was adopted in the present study to accomplish the objectives.

Simple random sampling technique was used for the selection of 50 ICU staff nurses.

The tool is a modified version of expanded nursing stress scale (ENSS) description of the tool.

The questionnaire was constructed in two parts with 42 items.

<table>
<thead>
<tr>
<th>Part 1</th>
<th>Consisted of 9 items of demographic variables such as</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>age</td>
</tr>
<tr>
<td></td>
<td>gender</td>
</tr>
<tr>
<td></td>
<td>educational qualification</td>
</tr>
<tr>
<td></td>
<td>years of experience</td>
</tr>
</tbody>
</table>

Part 2

Included the 8 areas related to stress, consisting of 36 items.

The tool was likert type, 5 point rating scale consisting of 5 options namely

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
</table>

Area 1
Consisted of 6 items related to Death & Dying. The highest possible score is 24.

Area 2
Consisted of 4 items related to Conflict with doctors. The highest possible score is 16.

Area 3
Consisted of 3 items related to Inadequate emotional preparation. The highest possible score is 12.

Area 4
Consisted of 2 items related to Problems relating to peers. The highest possible score is 8.

Area 5
Consisted of 3 items related to Problem relating supervisors. The highest possible score is 12.

Area 6
Consisted of 7 items related to Work load. The highest possible score is 28.

Area 7
Consisted of 7 items related to Uncertainty concerning the treatment. The highest possible score is 28.

Area 8
Consisted of 4 items related to Patients and their families. The highest possible score is 16.

The researcher modified the expanded nursing stress scale to assess the level of stress among the ICU nurses.

The health education pamphlet was developed by the researcher to distribute it among the ICU nurses.

Reliability of the tool was found to be 0.506 which indicated that the tool was reliable.
The steps adopted to prepare the health educational pamphlet were as follows.

1. Review of literature regarding stress management
2. Consultation with experts, preparation and organization of the first draft of health education pamphlets
3. Ascertaining the content validity of health educational pamphlet
4. Preparation of final draft of the health educational pamphlet.

The areas included in health educational pamphlet were
- Introduction
- Causes of stress
- Management of stress
- 10 ways to cope with stress.

Prior permission was taken from the concerned authorities.
Pilot study was conducted from 1st September to 10th September 2012 at Terna medical college hospital and research center to find out the feasibility of the study.
The final data collection was done from 20th September to 10th October 2012.

**Results**
The analysis revealed that
- 42% of the sample had severe stress,
- 34% had moderate stress,
- 14% had mild stress and
- 10% very severe stress.

Area wise analysis of the level of stress revealed that (6%) of the ICU nurses experienced very severe stress related to death and dying, ICU nurses (16%) experienced very severe stress related to conflict with the doctors and (8%) with inadequate emotional preparation. ICU nurses (18%) experienced very severe stress in the area of problems relating to peers and (22%) in the area of problems related to supervision. Nurses (20%) experienced very severe stress related to work load, (18%) of the ICU nurses experienced very severe stress related to uncertainty concerning the treatment. (30%) of the ICU nurses experienced very severe stress related to patient and families. The stress level scores of the ICU nurses in relation to the selected demographic variables were compared and tested statistically using chi square test. A highly significant association was found between the demographic variables such as age ($x^2=5.529$, $p<0.05$), years of experience ($x^2=20.887$, $p<0.05$), education($x^2=13.78$, $p<0.05$).

**Discussion**
Not surprising, the profession of nursing is widely perceived as one of the most inherently stressful occupations, often characterized by high rates of staff turnover, absenteeism and burnout. In the present study, the focus was on the various factors leading to stress among nurses working in ICU of Navimumbai hospital. The present study revealed that 14% of nurses’ fall in the category of mild stress while 34% nurses experienced moderate stress and 10% experienced high level of stress. Further, it was found that the demographic variables on factors influencing nurse’s feelings of stress can be used as the basis to modify work environment and plan programs to improve their psychological health.

**Table 2.1: Education Qualification Vs Level of Stress**

<table>
<thead>
<tr>
<th>Education Qualification</th>
<th>Total (%)</th>
<th>Level of Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>Diploma in Nursing</td>
<td>32 (64%)</td>
<td>7 f</td>
</tr>
<tr>
<td>B.Sc. Nursing</td>
<td>13 (26%)</td>
<td>0 f</td>
</tr>
<tr>
<td>Post Basic Nursing</td>
<td>5 (10%)</td>
<td>0 f</td>
</tr>
<tr>
<td>Total</td>
<td>50 (100%)</td>
<td>7 f</td>
</tr>
</tbody>
</table>
Fig. 2.1: Percentage Distribution of Nurses according to educational qualification

Post Basic B.Sc. Nsg. 10%
B.Sc. Nursing 26%
Diploma in Nursing 64%

Table 2.2: Level of Stress

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year of experience in ICU</th>
<th>Total (%)</th>
<th>Level of Stress</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Very Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>1 - 5</td>
<td>41(82%)</td>
<td></td>
<td>2</td>
<td>4.0</td>
<td>15</td>
<td>30.0</td>
</tr>
<tr>
<td>2</td>
<td>6 - 10</td>
<td>7(14%)</td>
<td></td>
<td>3</td>
<td>6.0</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>3</td>
<td>11 - 15</td>
<td>2(4%)</td>
<td></td>
<td>2</td>
<td>4.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50(100%)</td>
<td></td>
<td>7</td>
<td>14.0</td>
<td>17</td>
<td>34.0</td>
</tr>
</tbody>
</table>

Education Qualification Vs Level of stress, Chi square value = 13.786 and P-value = 0.032. According to education qualification, stress is statistically significant at 5% level i.e., P < 0.05.

Year of experience in ICU Vs Level of Stress

Fig 2.2: Percentage Distribution of nurses according to years of experience

Year of experience in ICU Vs Level of stress, Chi square value = 20.887 and P-value = 0.002. According to year of experience in ICU, stress is statistically significant at 5% level i.e., P < 0.05.

Interpretation and conclusion

The overall findings revealed that majority 42% of the sample had severe stress. A highly significant association was found between the level of stress and the demographic variables, thus supporting the hypothesis. Hence the researcher emphasizes and concludes that stress alleviating programs should be conducted for the nurses and personality training should be offered and more research studies to be carried out in finding out the effectiveness of the relaxation programs. Findings can have important implications for nursing practice and research.

Acknowledgement

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• Ms. Leena, Matron. Lifeline hospital Medical and Research center
• Dean. Terna medical college and hospital and research center.

Ethical clearance
Institutional ethics committee had approved the study.

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