IMPACT OF STRESS AMONG NURSES IN PRIVATE HOSPITALS –
AN EMPIRICAL STUDY

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ABSTRACT

Stress is a biological term which refers to the consequences of the failures of human or physical threats to the organism. It includes a state of alarm, short term resistance as a coping mechanism and exhaustion. Occupation stress is the major hazard for many employees. Increased workloads, downsizing, overtime, hostile work environment, shift work etc. A stressor is an event or set of conditions that causes a stress response. The occupational stress has a greater impact on the work environment which leads to behavioral problem of employee. The objective of this research paper is to review the literature on factors related to stress and the impact of stress among nurses in private hospitals at Trichy. Data was collected from the nurses of both day and night shifts. The sample size is 121 women nurses from two private hospitals in Trichy (DT). Using SPSS the following tools were administered like factor analysis and multiple regression. Based on the test result some of the major finding will be derived that will be significant and relevant to identify the factors that causes stress among nurses and means to overcome it.

KEYWORDS: stress management, hospitals, nurse.

INTRODUCTION

Stress is defined as the “body's uncertain response to the demand made on it.” On one hand stress provides the outlet to express our talent and energies and helps us to pursue happiness while on the other hand it causes illness and mellows down our strength. When something unpleasant happens around us, it puts us in a state of strain called stress.

Stress is not inherently deleterious, however. Each individual’s cognitive appraisal, their perceptions and interpretations, gives meaning to events and determines whether events are viewed as threatening or positive. Personality traits also influence the stress equation because what may be overtaxing to one person may be exhilarating to another.

Workplace stress is the harmful physical and emotional response that occurs when there is a poor match between job demands and the capabilities, resources, or needs of the worker.
Job stress is also associated with various biological reactions that may lead ultimately to compromised health, such as cardiovascular disease or in extreme case death.

The term “stress” was first used by the endocrinologist Hans Selye in the 1930 to identify physiological responses in the laboratory animals. He later broadened and popularized the concept to include the perceptions and responses of humans trying to adapt to the challenges of everyday. In Selye’s terminology,”stress” refers to the reaction of the organism and “stressor” to the perceived threat.

The working women were more likely to suffer depression than men, and job stress is more likely in lower skilled occupations. The team later combined job stress exposure patterns with previous research, which showed that job stress doubles the risk of depression to estimate the proportion of depression caused by job stress among working people;

Moreover, by comparison, 30-times fewer workers receive workers' compensation for stress-related mental disorders, suggesting that workers' compensation statistics grossly underrepresent the true extent of the problem.

Occupation Stress has become generally recognized as a significant contributor to ill-health and sickness absence. Occupational stress can be defined as ill-health and adverse work performance resulting from negative reactions to factors within the workplace.

The common causes of occupational stress includes

- Workplace environment
- The job itself
- Job control
- Job security
- Work overload
- Other effects

REVIEW OF LITERATURE

Freudenberger (1974) coined the term “burnout” to describe workers’ reactions to the chronic stress common in occupations involving numerous direct interactions with people. Burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, work stress and burnout remain significant concerns in nursing, affecting both individuals and organizations.
For the individual nurse, regardless of whether stress is perceived positively or negatively, the neuroendocrine response yields physiologic reactions that may ultimately contribute to illness. In the health care organization, work stress may contribute to absenteeism and turnover, both. The demand for acute care services is increasing concurrently with changing career expectations among potential health care workers and growing dissatisfaction among existing hospital staff.

LaMontagne said women and those in lower-skilled occupations are more likely to experience job stress, and so bear a greater share of job stress-related depression. "This represents a substantial and inequitably distributed public health problem," said Associate Professor LaMontagne. "The burden of mental illness in the general population follows a similar demographic pattern, suggesting that job stress is a substantial contributor to mental health inequalities," he added.

He said that solutions are available to address this problem. "The evidence shows that improving job control, moderating demands, and providing more support from supervisors and co-workers makes a difference. Our hope is that a better understanding of the scale of this problem will lead to more support for employees, particularly for lower-skilled workers and working women," he said.

"Given so many people spend a large part of their day at work, we need to find the best ways workplaces can promote good health rather than cause health problems," Mr. Todd Harper, Vic Health CEO said.

According to Atkinson stress occurs when one is faced with events or encounters that they perceive as an endangerment to their physical or psychological well being (as sited in McGowan, 2001). Additionally stress levels will increase when controllability and predictability in a situation decrease. There is an inverse relationship between stress and job satisfaction, as stress goes up, job satisfaction falls. As a result this increased stress could commonly results in decreased job satisfaction and decreased quality of life. This could potentially contribute to nurses leaving the profession and as an end consequence, account for the current nursing shortage.

The cause of stress for nurses has found to be related to the nature of the profession. Included in these stressors are an intense work environment with extended work hours, weekends, night and holidays.

According to Ruggiero (2003) stress could be related to variables of shift work, which is both physically and mentally taxing. This study also found varying degrees of depression in nurses ranging from mild to severe. Finally this study revealed that nurses were indifferent and disconnected to the job by feeling either satisfied or unsatisfied with the work. Results such as these expose how large a problem stress is for the profession of nursing.

A factor of the intense emotional support that is needed for the patient and family is yet another burden of stress placed on nurse. In addition, exposures to pain, suffering and traumatic
life events that the nurse experience on a daily basis can contribute to stress (Cohen-Katz, Capuano, Baker, & Shapiro, 2005). These concerns can lead to emotional exhaustion for nurses.

The lack of organizational support and involvement, which are outside of the control of nurses, can greatly affect job satisfaction (McGowan, 2001). There is also a lack of control and power in an environment predominantly controlled by physicians. These stressors can contribute to psychological exhaustion and increased stress.

RESEARCH QUESTIONS

- To identify the major factor that cause stress among the nurses in private Hospitals, at Trichy.
- To know the impact of harassment and attrition of women nurses in private Hospitals.

HYPOTHESES

Hypothesis 1: There is a relationship among the factors that influence the stress level of nurses in private hospitals at Trichy.

Hypothesis 2: Harassment increases attrition among nurses at private hospital.

SCOPE OF THE STUDY

The scope of the study is to inform the nurses about stress and make the management know about the stress that is prevailing in the organization. It is also done to increase the awareness in employee and management of the policies and practices regarding stress and to encourage the organization to implement suitable stress management programmes.

RESEARCH DESIGN

The method adopted for the study is “Descriptive Approach”.

SOURCE OF DATA

The data required for the study has been collected through questionnaires, primary source. Data is collected from nurse of both day and night shifts.

SAMPLING TECHNIQUE

Convenient sampling has been employed with the questionnaires being collected from 121 respondents.
PILOT STUDY

Pilot study is conducted to know the feasibility and suitability of the study. The questionnaire was given to 30 respondents. Necessary deletion and addition were carried out in the questionnaire.

USING SPSS FOLLOWING TOOLS WERE USED

- Multiple regressions
- Factor analysis
- Descriptive statistics
- Reliability analysis

FACTOR ANALYSIS

KMO AND BARTLETT’S TEST

The individual statement of nurses was examined using factor analysis based on 20 individual statements and the reliability of the subsequent factor structure was then tested for internal consistency of the grouping of the items.

TABLE 1

<table>
<thead>
<tr>
<th>KMO AND BARTLETT’S TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Kaiser – Meyer – Olkin measure of sampling adequacy index is 0.728, which indicates that factor analysis is appropriate for the given data set. KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

Bartlett’s Test of Sphericity is used to examine the hypothesis that the variables are uncorrelated. It is based on Chi-Square transformation of the determinant of correlation matrix. A large value of the test statistic will favors the rejection of the null hypothesis. In turn this would indicate that factor analysis is appropriate. Bartlett’s test of Sphericity Chi-square statistics is 1508.988, which would mean the 20 statements are correlated and hence as concluded in KMO, factor analysis is appropriate for the given data set.
Eigen Value represents the total variance explained by each factor. Percentage of the total variance attributed to each factor. One of the popular methods used in Exploratory Factor Analysis is Principal Component Analysis, Where the total variance in the data is considered to determine the minimum number of factors that will account for maximum variance of data.

**TABLE 2**

**ROTATED COMPONENT MATRIX**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get upset thinking that I am not able to be proper in my job</td>
<td>.673</td>
<td>.008</td>
<td>.109</td>
<td>-.067</td>
<td>.315</td>
<td>.256</td>
</tr>
<tr>
<td>I very Often feel that I am being neglected when I am in the team</td>
<td>.803</td>
<td>-.002</td>
<td>-.028</td>
<td>.200</td>
<td>-.007</td>
<td>.012</td>
</tr>
<tr>
<td>I do my work under considerable Tension</td>
<td>.827</td>
<td>.053</td>
<td>.237</td>
<td>.075</td>
<td>.197</td>
<td>-.099</td>
</tr>
<tr>
<td>I find difficult to concentrate on my work</td>
<td>.763</td>
<td>.014</td>
<td>.193</td>
<td>.139</td>
<td>.070</td>
<td>-.257</td>
</tr>
<tr>
<td>I feel that I’ve been work loaded with too many jobs</td>
<td>.530</td>
<td>-.012</td>
<td>.461</td>
<td>.119</td>
<td>.369</td>
<td>-.202</td>
</tr>
<tr>
<td>I feel emotionally drained from my work</td>
<td>.404</td>
<td>.585</td>
<td>.146</td>
<td>-.107</td>
<td>.234</td>
<td>-.084</td>
</tr>
<tr>
<td>I often Feel that I am not able to think clearly</td>
<td>.490</td>
<td>.378</td>
<td>.657</td>
<td>.096</td>
<td>-.070</td>
<td>-.043</td>
</tr>
<tr>
<td>I feel absolutely useless why my boss scold me for minor mistake</td>
<td>.653</td>
<td>.310</td>
<td>.368</td>
<td>.152</td>
<td>-.289</td>
<td>.001</td>
</tr>
<tr>
<td>I find it extremely difficult to take decision</td>
<td>.755</td>
<td>.039</td>
<td>-.082</td>
<td>.175</td>
<td>-.015</td>
<td>-.024</td>
</tr>
<tr>
<td>I get very nervous when I didn’t meet Organizational requirements in Job</td>
<td>.375</td>
<td>.334</td>
<td>-.134</td>
<td>.172</td>
<td>.486</td>
<td>.456</td>
</tr>
<tr>
<td>Compare to others I usually come out ahead</td>
<td>.586</td>
<td>.432</td>
<td>.446</td>
<td>.195</td>
<td>.066</td>
<td>.263</td>
</tr>
<tr>
<td>I often feel that this job has made my life cumbersome</td>
<td>.082</td>
<td>.121</td>
<td>.064</td>
<td>.015</td>
<td>.858</td>
<td>-.107</td>
</tr>
<tr>
<td>Thought of suicide have never crossed in my</td>
<td>-.150</td>
<td>-.551</td>
<td>.149</td>
<td>-.693</td>
<td>.103</td>
<td>.085</td>
</tr>
</tbody>
</table>
mind

<table>
<thead>
<tr>
<th>Statement</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I rarely explain things and apologize</td>
<td>.199</td>
<td>-.849</td>
<td>-.206</td>
<td>.006</td>
<td>-.209</td>
<td>-.023</td>
</tr>
<tr>
<td>I get depressed when I get hurt</td>
<td>-.176</td>
<td>-.403</td>
<td>-.003</td>
<td>-.153</td>
<td>-.210</td>
<td>.699</td>
</tr>
<tr>
<td>I feel my routine work changes due to working in night shifts</td>
<td>.135</td>
<td>.011</td>
<td>.000</td>
<td>.860</td>
<td>.255</td>
<td>-.132</td>
</tr>
<tr>
<td>I have frequent headache while doing the job</td>
<td>.133</td>
<td>.013</td>
<td>.867</td>
<td>-.013</td>
<td>.056</td>
<td>-.056</td>
</tr>
<tr>
<td>I forget things easily</td>
<td>-.101</td>
<td>.350</td>
<td>.549</td>
<td>.073</td>
<td>.026</td>
<td>.413</td>
</tr>
<tr>
<td>I feel losing my weight</td>
<td>-.094</td>
<td>-.695</td>
<td>-.068</td>
<td>-.310</td>
<td>.068</td>
<td>.108</td>
</tr>
<tr>
<td>I become restless and can’t keep stiff while working</td>
<td>.266</td>
<td>.082</td>
<td>.233</td>
<td>.823</td>
<td>-.139</td>
<td>.128</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
A  Rotation converged in 18 iterations.

**INFEERENCE**

Interpretation of factors is facilitated by identifying through 6 factors. Interpretation of factors is facilitated by indentifying the statements that have large loading in the same factor. The factor can be interpreted in terms of the statement that loads high on it.

The factors of a stress level of nurse comprise of 20 individual statements. Out of 20 factors, 6 individual factors contribute more towards stress level.

The factors are

1. Tension due to excessive workload.
2. I feel emotionally drained from my work.
3. Frequent headache while doing the job.
4. Working in night shifts.
5. Job is cumbersome.
6. Depressed when I get hurt by others.
MULTIPLE REGRESSION

TABLE 3

MODEL SUMMARY

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.825(a)</td>
<td>.681</td>
<td>.652</td>
<td>.845</td>
</tr>
</tbody>
</table>

PREDICTORS: (Constant), I get offensive emails, I feel that I was given derogatory, demeaning or humiliating remarks, I feel some one is unnecessary touching me at work, I feel that the company should change in some perspective, I feel to move from this company because of various reason, I get less salary in comparison to the magnitude of my workload, I feel myself to be part of the organization, I feel some one is unnecessary touching me at work, I am proud to tell people where I work, Abusive verbal or written commands used at me

The above model summary table shows R-Square for this model is 0.681. This means that 68.1 percent of the variation in overall stress level of nurse (dependent variable) can be explained from the 6 independent variables. The table also shows the adjusted R-square for the model as 0.652.

Any time another independent variable is added to a multiple regression model, the R-square will increase (even if only slightly). Consequently, it becomes difficult to determine which models do the best job of explaining variation in the same dependent variable. The adjusted R-square does just what its name implies. It adjusts the R-square by the number of predictor variables in the model. This adjustment allows the easy comparison of the explanatory power of models with different numbers of predictor’s variable. It also helps us to decide how many variables to include in our regression model.
### COEFFICIENTS (A)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-2.790</td>
<td>.500</td>
<td>-5.579</td>
</tr>
<tr>
<td></td>
<td>I am proud to tell people where I work</td>
<td>.183</td>
<td>.102</td>
<td>.180</td>
</tr>
<tr>
<td></td>
<td>I feel myself to be part of the organization</td>
<td>-.097</td>
<td>.098</td>
<td>-.093</td>
</tr>
<tr>
<td></td>
<td>I feel to move from this company because of various reasons</td>
<td>.407</td>
<td>.079</td>
<td>.330</td>
</tr>
<tr>
<td></td>
<td>I feel that the company should change in some perspective</td>
<td>.176</td>
<td>.088</td>
<td>.125</td>
</tr>
<tr>
<td></td>
<td>I get less salary in comparison to the magnitude of my workload</td>
<td>.207</td>
<td>.102</td>
<td>.137</td>
</tr>
<tr>
<td></td>
<td>I feel that I was given derogatory, demeaning or humiliating remarks</td>
<td>.124</td>
<td>.060</td>
<td>.136</td>
</tr>
<tr>
<td></td>
<td>I feel some one is unnecessarily touching me at work</td>
<td>.420</td>
<td>.097</td>
<td>.379</td>
</tr>
<tr>
<td></td>
<td>I feel some one is unnecessary touching me at work</td>
<td>.222</td>
<td>.110</td>
<td>.176</td>
</tr>
<tr>
<td></td>
<td>Abusive verbal or written commands used at me</td>
<td>.043</td>
<td>.150</td>
<td>.036</td>
</tr>
<tr>
<td></td>
<td>I get offensive emails</td>
<td>.178</td>
<td>.101</td>
<td>.165</td>
</tr>
</tbody>
</table>

**A Dependent Variable: Overall stress level in the organization**

### INERENCE

To determine if one or more of the independent variables are significant predictors of overall satisfaction of consumer, we examine the information provided in the coefficient table. From the above 6 independent statements only 2 statements are statistically significant the standardized coefficient. I am proud to tell people where I work have a beta coefficient 0.180, which is not significant (0.75). I feel myself to be part of the organization has a beta coefficient-.093, which is not significant (.325). I feel to move from this company because of various reason has a beta coefficient 0.330, which is highly significant (000). I feel that the company should change in some perspective has a beta coefficient 0.125, which is not significant (.048). I get less salary in
comparison to the magnitude of my workload has a beta coefficient .137, which is not significant (.044). I feel that I was given derogatory, demeaning or humiliating remarks has a beta coefficient .136, which is not significant (.042). I feel some one is unnecessary touching me at work has a beta coefficient.379, which is highly significant (.000). I feel some one is unnecessary touching me at work has a beta coefficient .176, which is highly significant (.082). An abusive verbal or written command used at me has a beta coefficient .165, which is not significant (.777). I get offensive an email has a beta coefficient .165, which is not significant (.082).

CONCLUSION

Work stress is the relationship between stressors on the job and how the worker physically and emotionally reacts. Stress and strain have long been associated with the work people do. Stress can result in feeling of distrust, rejection, and depression.

From the study the following factors causes highest amount of stress. They are difficulties in work life balance, Excessive work, Lack of concentration, interruption, Lack of training, Mistake by others and financial loss.

There are some occupational stressors which have a greater impact in work environment. This stressor must be properly addressed and remedial action should be immediately taken to reduce the stress prevailing in the organization. So, active stress management should be planned and implemented to reduce the level of stress in employees.

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