

# STRESS AND PSYCHOSOMATIC COMPLAINTS AMONG EMERGENCY STAFF IN HOSPITALS

S.F.Chandra Sekhar

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**Abstract** :Evidences of studies on job stress experienced by professionals in service organizations are countless barring exception of hospital staff working in emergency departments. These departments are the only workplaces in which, in a fraction of second, patients might loose or gain their lives under the supervision of wide range of medical and non medical staff who are on the alert always. This study is all about the job stress and psychosomatic complaints of the emergency staff. Two selected government hospitals are the areas of study, in which 247 samples of medical and non-medical staff were randomly selected, to whom, a structured questionnaire, consisting of questions pertaining to their profile, stress and psychosomatic complaints, was administered. Results reveal that all the staff has significant stressful experiences in their jobs. Further, the deleterious effect of stress- their psychosomatic complaints are positively and significantly related to job stress scores. Implications are drawn for administrative considerations.

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## **Introduction**

These days, one watches on TV and reads in the news papers, of an injured person being rushed to the emergency department of hospitals which are nearer to the place of accidents. Whether the rush is in the patient's best interest is often very doubtful. Hospitals are an integral part and parcel of national developmental plan. They are very complex service organizations. Because they deal with the most important resources – the human resource through which most important service-- health care is provided to the patient community. Human resource is being given priority over the physical capital as it is ultimately the health of the human capital which forms the basis of all other activities. Everyone knows that in the twin cities of Hyderabad and Secunderabad there are two large government hospitals serving the people of all backgrounds. Emergency services form one of the most important, complete and integral part of these two hospitals (Gonge, H., Jensen, L., & Bonde, J. (2002).

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**Dr S.F.Chandra Sekhar is Professor and Head, Department of Human Resource Management, Siva Sivani Institute of Management, NH7, Kompally, Secunderabad 500 014. He may be reached at sfchyd@gmail.com**

What are emergency services? The word “emergency” is derived from the Greek ‘URGENS’ meaning ‘Pressing’. It refers to an unlooked for contingency or happening or a sudden demand for action or a situation requiring prompt action. The emergency services are the most dynamic of all the hospital services, where it is the life and death question of the patient that is answered. Thus, this department needs to be staffed throughout the 24 hours with the skilled, tolerant, empathetic and efficient doctors, nurses and other staff members. Therefore, it is evidenced that the staff of this department suffer from deleterious effects of stress more than their counterparts in the other departments of the hospital (Abdel-Halim, 1982).

Stress as a subject of research in hospitals has been receiving increasing importance in these days for significant reasons (Ware, 2003). At least some of them are 1) it is probably the only concept that has received attention from both medical practitioners and behavioral scientists. 2) It is involved in the etiology of physiological, psychological and behavioral illness. 3) Its ramifying consequences are varied, adverse and deleterious on the work lives of the staff (Verhaeghe, et.al, 2003). Besides, unknowingly, we are spending millions of rupees on treatment of stress-related illness and other social consequences of stress.

### **The Present Study**

The twin-cities of Hyderabad and Secunderabad, during the last few years, have witnessed an increase in the number of trauma cases. This may be due to several reasons like, the increase of vehicular population, connectivity of highways to the entire nation and the speed at which traffic flows. All these caused stress among people in general and emergency staff of hospitals, in specific, attending to the accident victims. Most of the staff reported that they have health-related problems which could be categories as psychosomatic complaints as a consequence of intense involvement in stressful work experiences. Emergency department is the primary level of reception and management of the patients (Mostly the injured as a result of accidents) with all latest medical equipment and the qualified staff. The staff is always at the helm

of the concerned attendants who are sometimes violent (McVicar, 2003). All these call for an organized research study to explore the problem of stress and psychosomatic complaints of the emergency staff. This particular scenario in the hospitals has encouraged studying the problem of stress and psychosomatic complaints of emergency department staff in the government hospitals (Aneshensal and Stone,1992). Many private hospitals deny admission to trauma cases either due to lack of planned services or they do have permission to admit medico-legal cases.

Thus, the present study has been conducted with four fold objectives. Firstly, it assesses the degree of stress and psychosomatic problems of the emergency staff of these hospitals. Secondly, it attempts to study any differences that exist in the stress experiences of the staff according to their designation and years of work experience. It is understood that the stressful experiences vary according to the designation of the employees representing medical and non medical jobs. Further, those who are either new or older to the jobs also vary in their stressful experiences. Thirdly, it intends to explore the relationships between stress and psychosomatic complaints reported by the staff in order to test the hypothesis that “there is no relationship between stress and psychosomatic complaints”. Lastly, it explores the possibility of suggesting the coping mechanisms for the emergency staff enabling them to fight against the harmful effects emergency stress.

### **Materials & Methods**

The present study was conducted in the emergency departments of two large government and the older hospitals in the twin cities of Hyderabad and Secunderabad. Each of these hospitals has around 1000 beds and around 25 service units. 250 employees each from the emergency department of two hospitals were selected. They were divided into six categories namely 1) Administrators 2)Doctors 3)Nurses 4)Technicians (lab) 5)Ancillary 6)Security/gatekeepers. However, only 247 employees returned the filled in questionnaires. A structured questionnaire was administered to all of them which consisted of three parts. Part A for the personal background information, Part B

included a standardized scale developed by Parker & Decotis (1983) to ensure job stress (coefficient of alpha is .87), Part C included a self reported scale to measure psychosomatic problems of the hospital staff developed by Naughton (1988) Coefficient of alpha of the scale is .76. Five-point Likert's response pattern for all the items was employed where (5=strongly agree to 1=strongly disagree). Data processing and analysis were done with the help of statistical package for social sciences (SPSS). Means and Percentage were calculated for all scale items in order to know the degree of stress and the extent of the psychosomatic problems experienced by the staff. The degree of stress is assessed using means and percentages. The means were converted into percentages using the following formula,  $(\text{Mean} - 1 \times 25)$ . This is done with the assumption that response '1' for the each scale item is 0%, '2' – 25%, '3' – 50%, '4' - 75% and '5' - 100%. Further, as the respondents are from singly department from one type of hospitals namely government, it was thought that there is no need to assess any significant variations in their mean scores. Hence, means difference tests were not carried out. Results in this regard are presented in table 1 and 2. Further, as the sample originates from two similar government hospitals which are managed by the directorate of medical and health education, explore the inter-hospital variations on stress and stress reactions is futile and redundant from theoretical perspective. Lastly, the relationships between stress and psychosomatic problems of the emergency medical staff were examined with the help of correlational analysis and the results in this regard are presented in table 3.

### **Results and Discussion**

Firstly the means scores and percentage of stress experienced by medical and non-medical staff is computed and presented according to their designations in table 2. Secondly, the mean scores and percentage of stress amongst them are presented according to their experience on the jobs in table 3.

It is evident from the table 3 that among administrators of the hospital, the top five stressful situations in their job are 'obsession with work' (91.7%), 'lack of leisure time'(91.7%), 'personal sacrifice for work' (75.0%), time pressure'(75.0%), and 'burnout/lack of time for subordinates needs' (75.0%) each. Managerial

burnout is a common stressful experience in non-hospital business organizations as their stressful experiences are more from the sense of accomplishments, emotional exhaustion and depersonalizing experiences. They are also intensely involved in work, under time pressure and unable to allocate more time for the subordinates' needs.

In case of doctors, it is evident that the top five of their stressful experiences are 'lack of leisure time'(80.5%), lack of time for subordinate's needs'(77.5%), feeling of being occupied in work'(69.2%), lack of facility for relaxing' (69.5%), 'obsession with work' (69.5%). Doctors are always found involved extensively in their work with no leisure to enjoy and also time to spend with their subordinates. As a result, they are occupied with their work with lack of time and facility to relax from their work. All the doctors are expected to work in emergency departments on a rotational basis on one hand and the multiple shifts on the other hand. Thus, this work arrangements might have created stressful experiences to them.

With regard to nurses, it is found that 'lack of leisure time'(85.0%), 'feeling of being occupied in work' (75.0%), 'never-ending work load'(75.0%), 'strain/overburdened/obsession with work (72.5%)and lack of time for subordinates needs'(72.5%), Nurses always report to have been involved in too much of work load, strained out and no time to spend with the subordinate staff. Once a doctor finishes his examination of the patients, the rest of the time, nurses are the ones who spend more time, in facilitating the treatment process, supporting the patients emotionally and also in the form of providing counselling and timely medicinal support to them. As a results, they feel that their work is never-ending and their work loads are never receding.

With regard to technicians, it is clear that the top five stressful situations are "personal sacrifices' (95.0%), overburdened/ lack of facility for relaxing' (92.5%), 'never-ending workload' (90.0%), 'obsession with work'(85.0%). Technicians being non medical in their work, are too much involved in personal sacrificing for the sake of ensuring all the equipment are in place and functioning. Therefore, they lack relaxing time, always involved in their jobs. These employees nature of work is very peculiar than the others. As these people, though in common

healthcare literature on much discusses about, are very crucial in terms of ensuring that all the medical equipment is in place for all the doctors and the nurses, besides those who operate the medical equipment. If anything happens to these equipment, there is a tremendous disruption in the entire treatment process resulting in the negligence in the treatment or the death of the patients. Hence, these staff members feel that they are always available, round the clock, making personal sacrifices to ensure that the medical equipment are having less disruption potential for all the other staff members.

In case of ancillary staff, it was found that 'personal sacrifice for work' (100.0%), never-ending workload' (89.2%), overburdened' (89.2%), 'time pressure' (89.2%), 'obsession with work'(89.2%), 'feeling of being occupied with work'(89.2%). Ancillary staff is either messengerial or supportive in nature. They are found to be extremely involved in their jobs suffering from time pressure, overburden with more workloads. These staff members are those who are involved in diagnostics, ward boys and the Aayas whose work seems never ending as the patient flow is continuous in government hospitals. They receive work initiated from almost all other staff members. Further more, these members are expected to be on their toes when there is an emergency situation in which trauma cases arrive at their department.

Lastly, with regard to security staff, it was found that 'personal sacrifice for work' (93.7%), lack of facility for relaxing' (87.5%), 'strain' (81.2%), 'never-ending workload' (75.0%), 'overburdened' (75.0%) are the top five stressful situations. As the security staff is always on the alert, they do not have free time for relaxing and it looks as though their jobs are never-ending. Further more, these people are expected to safeguard the equipment and the people from all kinds of unforeseen threats. As a results these, they are always on the alert while performing their jobs. Every work input and output procedures enter the documents that are maintained by these members. Thus, their nature of job is a sought of inspecting, constantly watching besides maintain the records eventually experience various kinds of stressful experiences.

With regard to overall stress, means scores show that 78 percent of stress among ancillary staff is explained, followed by 72 percent in case technicians, 66 percent in case of nurses, and 65 percent in case of security staff. Interestingly, in case of administrators and doctors, 59 percent of stress in each case has been explained by the study. In conclusion, it could be said that ancillary staff suffer from more stressful experience, followed by technicians and the medical staff.

### **Stress by Years of Experience**

Table 3 gives the means and percentage of stress item scores obtained by the emergency medical department(EMD) staff according to the years of experience in the department. They are divided into 3 classes namely, 'less than 6 months', '6 months to 2 years', and 'Above 2 years '

From the table 3, we can see that among those emergency staff members who are new with less than six months of work experience, the top five stressful situations reported by them are 'lack of leisure time' (92.25%), 'personal sacrifice' (89.0%), 'never-ending workload'(78.0%), 'overburdened'(72.0%), and 'obsession with work'(72.0%). In other words, it could be understood that the new staff members in EMD feel that they are involved completely in the work that they are assigned which seems continuous and neverending load which is burdensome.

Among those who have been working for 6 months to 2 years, the top five stressful experiences are 'personal sacrifice'(87.50%), 'lack of facility for relaxing'(84.75%), 'overburdened'(83.25%), 'obsession with work'(83.25%), and 'lack of time for subordinates needs'(80.50%).

Among those who have been working for more than two years, the top five stressful situations are 'obsession with work'(83.25%), 'overburdened/personal sacrifice'(77.75%), 'lack of time for subordinates needs'(75.0%), 'lack of leisure time'(75.0%) and 'time pressure'(75.0%).

With regard to overall stress, the highest amount of stress is reported in case of those employees who have been working for six months to two years (69.0%),

followed by those who are working for more than two years (66.0%) and then the least amount of stress in case of those who are relatively new to the EMD work (64.0%). In other words, all of them have been suffering from stress more regardless of their years of experiences.

### **Stress and Psychosomatic Problems**

Psychosomatic problems of employees involved in the stress work have been receiving more attention in the hospital context at least for the treatment considerations. Relationships between stress and psychosomatic problems have also been well established. Results in this regard are presented in table 4.

As is clear from the table 4 that all the psychosomatic complaints, except 'trouble in breathing' 'pain in the back', 'feeling fidgeting and poor appetite' reported by the respondents are positively and significantly correlated with stress. Interestingly, the most strongly related one is 'becoming very tired in short time ( $r=.6911$ ,  $P<.000$ ), followed by 'trouble staying asleep ( $r=.6050$ ,  $P<.000$ )', 'feeling heart pounding or racing ( $r=.5992$ ,  $P<.000$ )', 'sweating hands ( $r=.3981$ ,  $P<.001$ )' and 'Difficulty getting up in morning,  $r=.3919$ ,  $P<.001$ ). A problem like trouble breathing is not related to the stress, whereas the feeling fidgeting, poor appetite and pain in back or spine are not significantly correlated with the stress. Conclusively it could be stated that out of 12 psychosomatic problems, eight of them are positively correlated with the stress. This rejects the hypothesis and provides support to the alternative "there are relationships between stress and the psychosomatic problems experienced by the staff of emergency medical department in the government hospitals. Thus, it is now further established that the psychosomatic problems of the emergency staff in government hospital are the most deleterious effects of intense involvement of stressful work in emergency department of government hospitals.

### **Implications and Conclusion**

In the light of the results reported in this paper the implications for administrative decisions regarding helping staff in emergency medical departments in the



government hospitals to cope with the stress and the deleterious effects of stress on the psychosomatic problems are presented in the following section.

Firstly, it is found that stress among ancillary staff is the highest followed by technicians, nurses, security staff. Interestingly, in case of administrators and doctors stress in each case is equal. Secondly, with regard to years of experience in EMD, the highest amount of stress is reported in case of those who have been working for six months to two years, followed by those who are working for more than two years and then the least amount of stress in case of those who are fresh to the EMD work. By and large, all the staff members either according to their job titles or period of work experience, state that their work seems to be never-ending in EMD. Thus, Parkinson's law which states "work expands so as to fill the time available for its completion", seems operating in their work lives if they are posted in emergency department causing incessant work stress experiences which are deleterious causing, in turn, the psychosomatic reactions in the long run.

Lastly, It was found that all the psychosomatic complaints, except 'trouble in breathing' 'pain in the back', 'feeling fidgeting and poor appetite' reported by the respondents are positively and significantly correlated with stress. This means that jobs in emergency department involve more of running around the department for various resources used in treating the patients who are basically traumatic in nature as they were admitted into it. Further, because of the pulsating nature of work in which the staff are involved, they feel breathlessness, pains in their back and lack appetite.

What do these convey from the administrative context of the hospitals under study. It could be said that the nature of work of the administrators in EMD requires constant supervision of the work of other staff, timely help to those required, constant watch on the availability of staff as per the demanding situation, medico-legal nature of a large number of cases, constant harassment by various parties, making available all the facilities round the clock to the best of

their nature despite of present situation leaves them with no time to rest, burnout and lack of time for their subordinates needs. As a large number of cases are disaster stricken, it leads to ultimate time pressures on them (Ceslowitz, 1989).

For the doctors it can be viewed as that shortage of doctors, no clear cut code blue procedures, no clear-cut referrals, lack of community support, failure of health services at the primary level, lack of consultants and doctors in peripheries, illiterate and large number of attendants as well as large and huge number of casualties off and on lead to lack of breathers, lack of time for the subordinates development and always being occupied with work. Owing to the busy time as well as social and cultural taboos of patient care they feel lacking of facilities for relaxing (Rowe, 1997).

In case of nurses it is the heavy workload that is maddening leading to all the consequences of strain, overburdening, lack of leisure time etc. Being females some of them may be a bit nervous sometimes also.

With regard to technicians, Ancillary staff and security staff it is the burden of the work, heavy loads often, anxious and concerned attendants, time pressures from both administration and patients, non-availability of equipment sometimes all leading to strain, overburdening, time pressures and lack of facilities for relaxing.

It is seen that at all the levels the personal sacrifices due to the stress play an important role, which have longstanding implications on the family lives (Lazarus,1999)

The reasons can be that those new to the department find themselves in suddenly demanding situations and therefore find lack of leisure time. After about 6 months these staff members develop some immunity against the same. But after a prolonged period of more than two years work in EMD they also show same signs of stress as shown by those younger in their jobs, which may attributed to the exhaustion state once again we see that personal sacrifice carries important mark over here which need to be stressed so that the staff is

able to donate time to them also. As work system arrangements are concerned, there could be i) Clear-cut protocols and procedures, ii) Relaxing exercises, iii) More staff- frequent rotating, iv) less work hours, v) Family counselling-week and vi) Special leave package.

Some organizational coping mechanisms are noteworthy and needs scrupulous regard at least in the emergency departments in hospitals today. They are

- Biofeedback, i.e. measuring pulse, blood pressure, etc & providing feedback to the employees and make them aware of their health status and improve their coping mechanisms in the departmental work loads which are always sudden and intensely involved.
- Progressive muscle relaxation, i.e. relaxing high levels of residual muscle tension, is yet another technique the employees in the EMD of the hospitals.
- Imagery training, i.e. imagining being in a restful place, a relatively new training programme, if initiated, would reap better results in helping EMD employees cope with their stress and stress reactions.

This research also offers a new paradigm related to the understanding of coping behaviors related to health. The determination that balancing and sustaining conceptually define the coping behaviors measured as a part of this study suggest that practical solutions to concrete problems may not benefit from a one size fits all remedy. Issues such as staffing, scheduling and workload as well as the provision of appropriate salary and benefits may require accommodations designed to meet the needs of individual staff members. The predominance of balancing in the research model suggests that those individuals overwhelmed by the complexity of the circumstances with which they are confronted are more likely to experience increased job strain and a greater propensity to leave. Seeking a means to accommodate the need for balance, as is appropriate to the resources of the institution, may promote overall job satisfaction and longevity in the workplace.

In conclusion, this study reported the results of stress and psychosomatic problems of the employees working in the emergency department of two large and old government hospitals. Medical and non medical staff of the emergency department reported their stressful experiences which are varied accordingly. Further, those who are new to the jobs and older to the jobs in the emergency department also reported varied stressful experiences. The study also reported the existence of relationships between stress and psychosomatic problems which are self-reported by the employees of the EMD. Implications were drawn for the organizational coping mechanisms to be initiated by the hospital administration for the medical and non medical staff in the hospitals.

TABLE 1 : MEANS AND PERCENTAGES ON STRESS SCALE ITEMS ACCORDING TO DESIGNATIONS

Stress dimensions	Administrators		Doctors		Nurses		Technicians		Ancillary		Security staff	
	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%
Nervous	2.33	33.2	1.77	19.2	2.8	45.0	2.7	42.5	2.7	42.5	3.75	68.7
Personal sacrifice	4.00	75.0	3.88	72.0	4.2	80.0	4.8	95.0	5.00	100.0	4.75	93.7
Intolerable job demands	2.67	41.7	2.67	41.7	3.3	57.5	3.1	52.5	1.29	07.2	2.00	25.0
Never-ending work-load	3.33	58.2	2.88	47.0	4.0	75.0	4.6	90.0	4.57	89.2	4.00	75.0
Strain	3.33	58.2	3.77	69.2	3.9	72.5	3.7	67.5	3.42	60.5	4.25	81.2
Lack of leisure time	4.67	91.7	4.22	80.5	4.4	85.0	4.3	82.5	4.57	89.2	3.50	62.5
Overburdened	4.00	75.0	3.44	61.0	3.9	72.5	4.7	92.5	4.57	89.2	4.00	75.0
Obsession with work	4.67	91.7	3.78	69.5	3.9	72.5	4.4	85.0	4.57	89.2	4.00	75.0
Time pressure	4.00	75.0	3.56	64.0	3.6	65.0	3.9	72.5	4.57	89.2	3.75	68.7
Guilty	2.67	41.7	3.00	50.0	2.6	40.0	2.8	45.0	3.71	67.7	1.75	18.7
Fear of telephone ringing	2.67	41.7	2.44	36.0	3.2	55.0	3.1	52.5	4.57	89.2	3.25	56.2
Feeling of being occupied with work	2.00	25.0	3.77	69.2	4.0	75.0	4.0	75.0	4.57	89.2	3.25	56.2
Burnout	4.00	75.0	3.44	61.0	3.5	62.5	3.5	62.5	4.57	89.2	3.50	62.5
Lack of time for subordinates needs	4.00	75.0	4.10	77.5	3.9	72.5	4.0	75.0	4.57	89.2	3.25	56.2
Lack of facility for relaxing.	2.33	33.2	3.78	69.5	3.4	60.0	4.7	92.5	4.29	82.2	4.50	87.5
Total stress	3.40	59.0	3.40	59.0	3.6	66.0	3.9	72.0	4.10	78.0	3.60	65.0

**TABLE 2 : MEANS AND PERCENTAGES ON STRESS SCALE ITEMS  
ACCORDING TO YEARS OF EXPERIENCE**

<b>S.No.</b>	<b>Stress dimensions</b>	< 6 months		6 mo – 2 yrs		2 years & >	
		<i>Mean</i>	%	Mean	%	Mean	%
<b>1</b>	Nervous	2.50	37.50	2.72	43.00	2.56	39.00
<b>2</b>	Personal sacrifice	4.56	89.00	4.50	87.50	4.11	77.75
<b>3</b>	Intolerable job demands	2.75	43.75	2.33	33.25	3.00	50.00
<b>4</b>	Never-ending work-load	4.12	78.00	3.94	73.50	3.67	66.75
<b>5</b>	Strain	3.94	73.50	3.61	65.25	3.67	66.75
<b>6</b>	Lack of leisure time	4.69	92.25	4.11	77.75	4.00	75.00
<b>7</b>	Overburdened	3.88	72.00	4.33	83.25	4.11	77.75
<b>8</b>	Obsession with work	3.88	72.00	4.33	83.25	4.33	83.25
<b>9</b>	Time pressure	3.44	61.00	4.17	79.25	4.00	75.00
<b>10</b>	Guilty	2.81	45.25	2.00	25.00	2.78	44.50
<b>11</b>	Fear of telephone ringing	2.88	47.00	3.61	65.25	3.00	50.00
<b>12</b>	Feeling of being occupied with	3.56	64.00	4.06	76.50	3.89	72.25
<b>13</b>	Burnout	3.12	53.00	4.11	77.75	3.89	72.25
<b>14</b>	Lack of time for subordinates	3.81	70.25	4.22	80.50	4.00	75.00
<b>15</b>	Lack of facility for relaxing.	3.56	64.00	4.39	84.75	3.78	69.50
	Total stress	3.57	64.00	3.76	69.00	3.65	66.00

**TABLE 3 : STRESS AND PSYCHOSOMATIC PROBLEMS**

<b>Sno.</b>	<b>Psychosomatic complaints</b>	<b>r</b>
P1	Trouble breathing	.0652
P2	Pains in back or spine.	.1999
P3	Become very tired in short time.	.6911**
P4	Trouble getting to sleep.	.4321*
P5	Trouble staying asleep.	.6059**
P6	Difficult getting up in morning.	.3919*
P7	Feeling heart pounding or racing.	.5992**
P8	Sweating hands.	.3981*
P9	Feeling fidgeting.	.1557
P10	Poor appetite.	.1978
P11	Spells of dizziness.	.3807*
P12	Smoking.	.3880*

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