

## Epidemiologic Pattern of Job Stress in Managers of Iran Hospitals

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### ABSTRACT

**Background:** There is different evidence base on introducing of management as one of the stressful jobs. So, the purpose of this study was determination of Epidemiologic pattern of job stress in managers of Iran hospitals

**Methods :** This study evaluates the epidemiologic pattern of job stress in managers of hospitals. This study was a descriptive-cross-sectional. Stressors types in the hospital based on measurement standards include: time pressure, working hours and schedule, management, decision making, intrinsic characteristics of job, organization role, organization development, and organization structure, relations with organization and organization confluence with outside environment of work was measured based on Waldron model.

**Results:** more than 93% of managers know to be in job stress, 14% of managers had increased their job stress, 11.8% permanent and fixed, 48.7% knew changeable. 69.2% didn't do any work for the stress, while 4.9% of them were taking medicine for controlling of stress.

**Conclusion:** Definition of job roles and responsibilities and duties of managers, education and management of stress control, familiar to individual skills in stress reduction, spiritual leisure practice and time management are recommended.

**KEYWORDS:** epidemiology, stress, managers, hospitals, Iran .

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### INTRODUCTION

Stress shows the quality of people's experiences that is produce of environmental interactions. Stress involved the people in physical and mental pressure as a result of too more motivation (Jannati, Y.2011). Job stress can be known as any harm physical and mental response that is achieved with lack of compatible in people and ability of his/her adapt with workplace. This response can appear with unhappiness, conflict and violent behavior, accident & injuries, different kinds of physical illness and even death (Johanson, M. 2008). Job stresses are considered the important and remarkable phenomena in the modern workplace. In recent decades, job transition led to more complexes of job & human relations in job places and job stress is one of the main consequences of this phenomena. The sources of management stress are different in structure with those of subordinate's staff that include: natural job factors and organization structure and climate development, organization intersection with external environment of work. There is much evidence on the basis of introduction of management as one of the stressful job. Duties such as planning, assessment, time limitation for projects and programs, coordination, leadership, human resources management, financial and budgetary problems, reporting of activities to senior managers are accompanied their special stress (Donaldson-Feilder.2011). Stress has significant correlation with age, as younger managers are more exposed to stress (Chong, A.2011).

In the 2past decades, job stress in managers has been considered seriously and investigation of their relations with various undesirable consequences on people and organizations has been recommended. The knowledge of effective factors on job stress helps managers to plan for minimizing their stress and will improve the quality of services (Sehlen S et al.2009). Due to the important role of managers in quality and quantity of service production, prevalence of job stress and the most important factors should be indentify and relation of this stress with physical problems will be investigated. According to literature review, job stress in hospital managers has not been sufficiently considered and scientific investigations are not adequate. So the purpose of this study was determined of epidemiologic patterns of job stress in hospital managers and relations of this with job demographic factors.

### METHODS

This study was cross-sectional. Data were collected using the Waldron questionnaire. All the statistical community was managers in hospital management congress in Tehran (2010) that have been studied census. 38 people of hospital heads, 69 managers, 171 Matrons, 174 supervisors and in total 452 persons nurse of 185 hospitals was distributed. 12 methods of job stress measurement were used (Ahsan N et al. 2009). Job stress based on measurement criteria were:

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- a) Group of time pressure, work hours and schedule, management, decision making of problems in job stress on workplace, stress factors that occurred in the past year in work place
- b) To determine of stressful management factors include: intrinsic job stress, organization role, OD, organization structure, relation with organization and organization confluence with external environment of work
- c) The factors of job stress based on Waldron model included: terms of reference, communication factors, formalization, antagonism of home affairs and workplace (Discovery Health.com Writers. 2010). Internal and external validity was measured by epidemiological methods. Questionnaire Reliability was determined by guide study at 30 managers. Results of Cronbach's alpha test were 87% for internal validity and 89% for average measure internal class correlation.

Job stress was measured based on total points of 7 mentioned factors, which achieved 555 scores by collecting maximum points. Considering the middle, people were divided to 2 groups: low and high stress groups with the maximum score of 7 groups of job stress factors and job stress of managers.

The score of every factor was based on frequency of occurrence and stress factors in responses. For example, if the particular management problems had occurred (such as budget deficit, unfavorable changes in regulations), never, rarely, sometimes, most often and every day, were considered 1 to 5 scores, respectively. Information of other questions of questionnaire such as administrator's views about job stress was presented as frequency and percentage of frequency. Information of mentioned factors and job stress of managers were analyzed with independent variables such as the area of management, age, academic paper and other variables on the table and their distribution was measured and presented. Mean and standards deviation of scores obtained and different of mean in connection with the independent variables of study was measured using Anova test.

### Findings:

Average age of people was 38/4 years with standards deviation 5/7 and range of 25-45 years and the average of management work record was 4/6 year. 13% were single and 87% were married. 21/6 % was physician and PhD. and 19/7 % was M.Sc. and B.Sc. Average staff under management were 347 and average working hours per week was 53/4hours (SD= 8/3) with 54 hours median. From the view point of span of management, 8/4% at chairmanship, 15/2% at office management and 76/4% at nurse field were activated. Table No. 1 shows average of standard deviation, mode and median of some independent variables. Generally, more than 93% of managers know to be in job stress, 14% of manage had increased their job stress, 11.8% permanent and fixed, 48.7% knew changeable. 69.2% didn't do any work for the stress, while 4.9% of them were taking medicine for controlling of stress.

**Table No: 1.** Statistical indicators of background variables

Variable	index	mean	Standard deviation	mode	median
Age		38/4	4/5	33	30
Management experience		4/6	5/2	3	3
experience in recent posts		3/2	2/7	2	2/4
Working hours per week		53/4	6/3	50	48
Working hours per day		8/3	1/1	8	8/1
Number of managed people		347	224	140	168
Number of people have job stress		93	5/6	72	70

**Table No: 2.** Frequency distribution and prevalence of job stress at managers in different level of hospital management.

Managers	Rate stress	Job stress		Average score	Standard deviation
		Low%	High%		
Head of hospital		53/2	46/8	276/5	46/2
Manager		56/7	43/3	289/4	43/7
Matron		52/2	47/8	281/3	59/4
Supervisor		55/4	44/6	297/8	47/6
Total		54/4	45/6		

**Table No: 3.** Percentage of frequency and prevalence of different type of job stress at hospital managers.

managers	Head of hospital	Hospital manager	matron	Supervisor
Stress full factors				
Decision making	92/2	85/3	73/6	72/4
Time stress	96	93	82/1	83/7
Stressful events in the past year	73/4	67/5	74/2	70/8
Management of work place	32/6	46/7	48/5	46/3
Working hours	87/3	80/4	85/7	88/2
Physical factors	8/6	21/6	16/9	14/7
The problems of management stress in recent time	9/2	14/7	24/7	22/5

**Table No: 4.** Frequency percentage of prevalence of job stress at hospital managers, mean and standard deviation of scores according to background variables

Factors	Prevalence percentage	Mean of obtained scores	Standard deviation	P. value
*Education				
PhD	68/7	291/6	47/9	N.S
M.Sc	64/3	287/3	42/6	
B.Sc	59/2	289/7	49/4	
*Marital status				
Married	56/8	291/2	48/5	0/015
single	74/6	289/3	46/3	
*Management experience(year)				
<1	81/9	295/3	43/6	N.S
1-2	64/7	286/2	47/2	
2-4	61/4	274/7	48/5	
>4	56/2	268/6	51/1	
*Age group				
<25	69/6	297	40/3	<0/001
25-35	63/8	287/3	45/8	
30-45	59/2	264/2	49/1	
>45	48/6	256/7	40/5	

## Conclusion

According to findings, prevalence of job stress is relatively high at hospital managers in Iran. The most important of job stress factors at hospital managers were stress of decision making, time stress and working hours and stress of management of workplace. While, intrinsic factors of job stress were common such as too much work, poor relations of staff with managers and on the contrary, management problems and responsibilities, stress factors of organization structure and office policies more than other resources of management. Customer expectations for optimal services at the care time and lack of nursing staff in hospitals that has been declared by Matron and supervisor can be the most important reason for the trend of increasing job stress. Lee Doang has mentioned that the main source of job stress in nurses is workload and their responsibilities (NIOSH, Report. 2004). Also, Crawford writes increasing of working hours causes conflict in job and family duties that can lead to job stress (Dale Collie.2010). Other findings indicate that younger managers were in more stress which is similar to other findings in other communities. For example, in America, research on hospital managers showed that younger managers have more stress than older managers and workplace and understanding of managers to be counted the effective factors of job stress (Saha, 2011). Also, some other studies showed that older managers tolerate job stress better than younger managers (Chen, 2010). To select prevention ways of job stress at managers and individual advice to them should be noted that: Firstly, single methods cannot be effective at prevention of individual job stress and combination of different methods should apply for this purpose to obtain a good result. Secondly, the effective method at prevention and control of individual job stress is not effective necessarily in the other person. Thirdly, stress can be useful partly so that, increase work motivation, dynamism and promoting of competitive spirit in obtaining career success. Complete removal of stress causes boredom and depression, thus it should be considered in reducing of job stress (Jex SM, 1991). According to cases, the most important individual advice to managers is: healthy lifestyle such as health food habits, having leisure and proper entertainment, enough rest, physical activities such as exercises in leisure time, avoiding tobacco and drugs, having compliance with environment, and timely use of health care services, lack of compliance with environmental conditions, high volume of work in short time, proper interaction with staffs, avoiding long working hours, skill reinforcement at doing work, creating a proper field for active participation of staff in decision making and proper physical conditions are the factors that are effectiveness at remove and reduce and control of stress. Establish to education of stress management would be very effective. Educations are mainly about familiarity with nature and sources of stress and its effects on health, the role of individual skills in stress reduction, exercise time management (Luck C. 2000 and Heim E. 1991). Improve organizational structure and workplace conditions (identify of stressful factors of job environment and design of proper strategies to reduce or eliminate of different stressful factors), ensure that the assigned workload to each person is based on his/her abilities and create the conditions for internal communication of managers with his/her work and increase his/her internal motivations are other effective recommendations.

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