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Relationship between Managerial Skills and Employees Job Stress in Health Centers

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ABSTRACT

Background: Job stress is one of the important issues in the health sector and its high effect on workers' productivity. Managerial skills can help organizations to improve employees' effectiveness and reduce job stress. The present study investigated the relationship between employees' job stress and managers' professional skills.

Methods: This cross-sectional and correlation study was conducted in 2010. We selected 90 health workers of 13 Health and Treatment Centers in Razan Health Center, western Iran. All data were gathered using self-administered questionnaires. Employees' job stress levels were measured using the Eliot Stress Questionnaire and managers' professional skills were assessed using the standard Questionnaire with 40- items in Likert format. Data were analyzed using SPSS software and Pearson correlation coefficient and Kendall correlation tests.

Results: 87.7% of employees had mid- level of job stress. The professional skills level was high in 36.7% of health managers; moderate in 56.6%, and low in 6.7%. In addition the human skill was highest level among all managers' professional skills. A significant and negative correlation was found between job stress and managers' human, conceptual and design skills ($P < 0.005$).

Conclusion: The level of managers' professional skills was significantly related with employees' job stress, thus training and developing managerial skills especially human, conceptual and design skills in supervisors and managers of health centers can reduce job stress and enhance effective performance.

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Introduction

There is a growing acceptance that job stress negatively affects on health of workers¹. Job stress is a sensible and important issue for organizational leaders². It is estimated that work stress to cost U.S. business more than \$300 billion a year in absenteeism, decreased productivity and health, official and insurance expenses³. Salami et al.⁴ define job stress as a situation arising from the interaction of personnel and their jobs and characterized by changes within the employees that force them to diverge from their normal functioning. Stress is defined as the response of individuals to demands (stressors) imposed upon them⁵. It is commonly believed that some types of stress are fine and may improve employee's output; however, excessive stress brings about physical and mental changes⁶. Several stress researchers differentiate among negative stress, named 'distress' and positive stress, named 'Eustress'. Eustress is the stress experience that stimulates and motivates manpower to achieve their goals and be successful in their life's challenges⁴. Negative stress is one that

negatively affects employees and managers' psychological and physical health and, in turn, their results.

Stress is a contributing factor to organizational ineffectiveness, high employees' turnover, absenteeism due to disease, reduced quality and quantity of care, increased costs of health care, and reduced job satisfaction⁷. Medical researchers have concluded that there is an important relationship between the level of people's stress and adverse responses, such as heart disease, gastroenteritis, sleep disorders, accidents, events on duty, decrease in job performance, and increase in absence and job displacement⁸⁻¹⁰. Several factors influence employees' stress: Instrumental communication, organizational support, inherent rewards (i.e., personal growth opportunities), leadership and management style and skills, training, perceptions of equitable treatment, co-worker support, organizational support for employees, trust in supervisors, supervisor support, and quality of supervision were linked inversely to job stress^{9,10}.

As mentioned above, one of the most important factors that mostly effect on job stress is management and especially managerial skills. The four skills that managers typically use are technical, human, conceptual, and design skills; and the percentage of one's time used up in these areas can change as managers' move up the hierarchy¹¹⁻¹³. Top managers tend to expend more time using their conceptual skills. In the first line managers it was theorized that perceived managerial design, technical and especially human skills would be related to subordinate stress because they are likely to suggest a sense of safety, job satisfaction, participative environment and high quality of work life at organization. Human skills with referent power of the manager increase the attraction and acceptance of the manager by the subordinate therefore improving the friendliness of the work situation and decreasing stress^{4, 5, 7, 10, 14}.

Thus, it is necessary to study the relationship between employees' stress and managers' professional skills. The present study aimed to investigate how managerial' skills were related to employees' job stress in health and treatment centers, and to investigate which strategies and training programs could empower health managers and employees.

Methods

This research was a correlation and cross-sectional study. Participants were employees of Razan Health Center and 13 urban and rural health and treatment centers in Razan City western Iran, 2010. The main hypotheses of this study were: i) Human skills of the managers will be negatively related to subordinate stress. ii) Conceptual skills of the managers will be negatively related to subordinate stress. iii) Technical skills of the managers will be negatively related to subordinate stress. iv) Design skills of the managers will be negatively related to subordinate stress. v) There is negative relationship between employees' job stress and total professional skills of managers.

Study population includes all health workers at Razan Health Center. With regard to statistical population and using Morgan table, a sample with 90 employees was selected and random sampling technique was used to select these employees of 13 rural and urban health centers, those who worked in the units of health services.

Data gathering

The research consisted of two self-administered questionnaires that were developed by validation and reliability confidence analyses. All the employees received questionnaires asking about the "jobs' stress" and their "managers' professional skills" and general demographic variables. The demographic data including age, gender, marital status and educational level were achieved from part one of stress questionnaire. To keep the data privacy of individual workers against managerial or workers access, participant completed the questionnaires secretly and return them to the interviewers. Questionnaires includes: a) Stress: level of job stress was assessed by self-reported responses to the questions R.S. Eliot's Standard scale¹⁵ was used to evaluate employees' job stress. The questionnaire contains 20 items designed on a 4-point basis: 4: "strongly disagree", 3: "relatively disagree", 2: "relatively agree" and 1: "strongly agree". Job stress was scored at four levels: 20-29: desirable stress, 30-49: moderate stress, 50-69: undesirable stress, and 70-80: dangerously undesirable stress. The validity of this questionnaire has been approved by management experts.

b) Managers' professional skills: Koontz and O'Donnell¹² provide the following definitions for human, technical, and conceptual skills: *Technical skill* is knowledge of and ability in activities involving methods, processes, and procedures. *Human skill* is the ability to work with people; it is supportive effort; it is teamwork; the ability to communicate, to direct and motivate people. *Conceptual skill* is the ability to see the "big picture," to recognize significant elements in a condition, and to understand the relationships among the elements. Wehrich & Koontz¹³ added a fourth category, namely "design and problem solving skill" to Katz categorization. In this sense; *Design (diagnostic) skill* is the ability to solve problems in ways that will advantage the enterprise. To be effective managers must be able to do more than see a problem. If managers just see the problem and become "problem watchers," they will be unsuccessful. They must have, in addition, the skill of a good design engineer in working out a practical solution to a problem.

Questionnaire is designed to yield information about managers' skills that can be used for training and development purposes. A structured questionnaire with Likert 5-point scale where higher values indicated better skills was designed and used to measure four types of management skills: technical, human, conceptual and design: 5: "very high", 4: "high", 3: "middle", 2: "low", and 1: "very low". One can score the questionnaire by doing the following. First, sum the responses on items 1-10. This is one's technical skill score. Second, sum the responses on items 11-20. This is one's human skill score. Third, sum the responses on items 21-30. This is one's conceptual skill score. Fourth, sum the responses on items 31-40. This is one's design (diagnostic) skill score.

Validity and Reliability

In terms of the instruments used, the study referred to the past literatures to design questionnaire items. As mentioned above, job stress was measured by the R.S. Eliot's Standard scale¹⁵ and management professional skills was designed based on similar research instruments^{16,17}. The questionnaires were randomly sent to 10 management experts of the medical sciences universities and health system in Iran, and they were asked to fill in the questionnaire and identify ambiguities in terms, meanings, and issues. Some of the comments were accepted and incorporated in the questionnaires. For reliability and validity these questionnaires have been tested successfully. Generally, the minimum requirement of Cronbach Alpha is 0.7. The Cronbach Alpha of 'stress' questionnaire was 0.81. The Cronbach Alpha values for dimensions of "managers' professional skills" questionnaire were respectively: 1) 10-item-"technical skills": 0.86; 2) 10-item-"human skills":0.89; 3) 10-item-"conceptual skills":0.92; 4) 10-item- "Design skills": 0.81. Therefore, this study is acceptable in reliability. As mentioned above, Therefore, this study is acceptable in content and face validity.

Implementation Method

Theoretical fundamentals and basic concepts were developed through library method. National and international literature was used in theoretical studies. Data were gathered through field study. The researcher visited the selected health and treatment centers on two times. Employees were gathered during work time and they completed the questionnaires in different periods to prevent biases. Data collected for the research was subjected to statistical analysis. The data were provided by analyzing 180 questionnaires from every scale by SPSS pack-

age program. In the analysis of the data chi square, Kendall correlation and Kruskal-Wallis tests were used. In addition Pearson correlation coefficient was used to test relationship between job stress and managerial professional skills.

Results

A total of 90 employees participated in this study. The demographic characteristics of the respondents are given in Table 1. The table shows that 36(40%) of them were male. The frequency of 20-30 years age group was the highest (61.1%). As regards marital status 42(46.7%) were single while 48(53.3%) were married and 47.8% had a BSc degree. Measurement of job stress suggests that most participants had moderate level of stress (relative frequency: 87.8%). None of the participants showed “dangerously undesirable stress”.

Table 1: Frequency and relative distribution of the subjects based on demographic characteristics

Variable	Frequency	Percent
Age (year)		
20-30	55	61.1
31-40	23	25.6
41-50	9	10.0
>50	3	3.3
Gender		
Male	36	40.0
Female	54	60.0
Educational level		
Less educated	41	45.5
BSc	43	47.8
MSc	1	1.1
PhD	5	5.6
Marital status		
Single	42	46.7
Married	48	53.3

Table 2 shows the descriptive data on managerial skills scale. The scores obtained by the participants were high in 54.47%, 48.68%, 28.90% and 28.90% for Human, Conceptual, Technical and Design skills respectively. The mean score of managerial skills was 133.67 [95% CI: 138.62, 128.72] and almost 93.34.3% of heads of departments had a moderate and high managerial skill score.

Table 3 shows the results of correlation analysis of the relationship between employees’ job stress and managers’ technical, human, conceptual and design skills (hypotheses; 1-4). Accordingly there was a negative and significant correlation between managers’ human skills and employees’ job stress ($P = 0.008$). On the other hand, the correlation coefficient of managers’ human skills and employees’ job stress was negative; therefore the first hypothesis was accepted. There was a significant negative relation between managers’ conceptual skills and employees’ job stress ($P=0.028$), therefore the second hypothesis was accepted. There was no negative correlation between managers’ technical skills and employees’ job stress ($P = 0.056$), therefore the third hypothesis, “technical skills of the managers will be negatively related to subordinate stress” was rejected.

There was a negative relation between managers’ Design skills and employees’ job stress, ($P = 0.0025$), that is, as managers’ Design skills improve, employees’ job stress significantly decreases, therefore the fourth hypothesis, was accepted. To test hypothesis 5, we examined the relationship among employees’ job stress and total professional skills of managers with this hypothesis: H_0 : employees’ job stress is not related to managers’ professional skills. H_1 : employees’ job stress is related to managers’ professional skills. Table 3 shows the results for hypothesis testing using Pearson’s correlation. The correlation results indicated that there was a significant negative relationship between employees’ job stress and total professional skills of managers ($P = 0.013$).

Table 2: The distribution of managerial professional skills levels and their associated score means

Items	Managers Professional Skills Level						Score	
	Low		Moderate		High			
	Number	Percent	Number	Percent	Number	Percent	Mean	95% CI
Human Skills	2	2.20	39	42.33	59	54.47	35.87	37.12, 34.62
Conceptual Skills	6	6.66	42	46.66	52	48.68	33.84	35.20, 32.48
Technical Skills	21	23.33	43	47.77	36	28.90	31.65	33.17, 30.13
Design Skills	17	18.18	47	52.22	36	28.90	32.30	33.83, 30.77
Total professional Skills	6	6.66	51	56.66	33	36.68	133.67	138.62, 128.72

Table 3: Relationship between Managers professional Skills and Employees Job Stress

Variables	Number	Correlation Coefficient	P Value
Managers Human Skills- Employees Job Stress	90	-0.253	0.008
Managers Conceptual Skills- Employees Job Stress	90	-0.202	0.028
Managers Technical Skills- Employees Job Stress	90	-0.169	0.056
Managers Design Skills- Employees Job Stress	90	-0.207	0.025
Total professional Skills of Managers and Employees Job Stress	90	-0.235	0.013

Discussion

Since stress and managers’ professional skills can significantly affect both quantity and quality of employees’ performance^{4, 12, 18, 19}, hence, the objectives of this research were to measure the level of employees job stress and its relationship with managers’ professional skills in health and treatment centers of Razan, Iran.

A large number of participants had mid-level stress. Various studies have been performed to consider the relationship among

job stress and job performance at moderate stress level²⁰. Experiencing a moderate level of stress can actually increase performance, so undesirable performance is a sign of high or low levels of stress⁹. Other study implies that job stress has a negative effect on job satisfaction and organizational commitment^{21, 22}. Therefore, normal stress levels are necessary for increasing quality of work life and generating desirable and effective performance⁵. These are important implications for topics like organizational efficiency and effectiveness since high or low levels of job stress play an important role in reduction in organizational efficiency. The four skills that managers typically use are technical, human, conceptual, and design skills¹¹; in this study, we found that 56.66% of managers of health centers had moderate professional skills and 36.68% of managers had high professional skills. A study conducted on professional skills of managers in similar field showed that level of managers’ professional skills (including human, technical, design, conceptual, and computer skills) at different managerial levels was less than 50 percent²³. Similar research found that the communication skills (as a part of human skills) of more than half of the managers were moderate²⁴.

The present study examines the relationship between managers’ human skills and employees’ job stress. According to our

results, it can be seen that a negative correlation exists between employees' stress and managers' human skills, that means improved abilities in working with employees, collaboration, teamwork, and providing an environment for employees' participation and involvement can reduce job stress. Erkutlu and Chafra⁵ believe that human skills with referent power of the supervisor enhancing the pleasantness of the work and lowering stress. Related studies recommend that social support at work; satisfying job relationships and organizational confidence through managers are able to decrease signs of work stress²⁵. The results of the present study indicated that a significant negative relation between managers' conceptual skills and employees' job stress was observed therefore the second hypothesis was accepted but the results indicated that no significant correlation was observed between managers' technical skills and job stress. Technical skills include knowledge, dexterity, and competence in activities which are related to techniques, methods, and ways of performing tasks. The particular kinds of technical skills depend upon the manager's position in the corporate. This insignificant relation in this study shows that job stress, in health and treatment centers, is not a dependency of managers' technical skills (i.e. changes in one variable do not affect the other). We found a negative correlation between employees' job stress and managers' design skills, that is, as managers' design skills and their ability in solving problems for organizational productivity improve, employees' job stress is significantly reduced. The study on hospital managers' skills and nursing qualities has shown a significant high level of correlation between managers' design skills and quality of nursing services²⁶. In other words, when managers have the ability to diagnose and solve problems of employees and organization, employees do not find themselves alone in dealing with problems and this reduces their level of stress and tension. Siegrist and Theorell²⁷ emphasize that creativity and innovations in job design, diminution of formal hierarchies, flexibility payment systems can reduce job stress and promote quality of services.

Results show a negative correlation between employees' job stress and total professional skills of managers, therefore, H_0 is rejected while H_1 is accepted. The negative value of correlation coefficients suggests when managers' improved professional skills, reduce employees' job stress. While much of the research on the relationship among stress and functioning focuses on the negative performance effects of stress and high levels of job stress can be a threat to employees' health and safety²⁸, not all stress is bad. In fact, researchers^{4,9} emphasize that stress is a necessary part of life and that does not for all time engage negative consequences for the person involved. In reality, at certain moderate levels, stress can actually enhance individual performance. There is considerable research supporting the idea of "good stress". Klein et al.²⁸ suggests that interventions intended at decreasing psychosocial stress among health workers can develop the quality of health care. However, this study showed that development in managerial skills and change in management style will be decreases employees' job stress. This result is comparable with other studies that emphasize the optimum level of stress will be increase employees' performance and productivity^{9, 22, 27, 29}.

Conclusion

The level of managers' professional skills was significantly related with employees' job stress, thus training and developing managerial skills (especially human, conceptual and design

skills) in supervisors and managers of health and treatment centers can reduce job stress and thereby improve organizational performance and productivity. Managers with high level of professional skills can promote productive stress and help employees handle with dysfunctional stress. These Managers can also promote social support in work condition, decrease or remove the stressors by redesigning and reorganizing jobs to reduce role conflict, role overload and role uncertainty and they be able to increase staff involvement in work planning and decision making.

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Conflict of interest statement

The authors report no conflict of interest in the undertaking of this research.

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