



ORIGINAL ARTICLE

Job stress, Job burnout and its relevant factors in Iran: results from Hospital Personnel Survey in Yazd

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ABSTRACT

Today most of deaths and births happen in hospitals that's why they become one of the most stressful places. As hospitals personnel face such happenings every day, the goal of this research was identifying job stress and its relation with job burnout and generating factors. That was a descriptive- analytic study that was done on 500 personnel of Yazd's hospital and was selected by convenience sampling method. Demographic questionnaire, Hospital Stress Scales (HSS-35) and Maslach Burnout Interview (MBI) was used for collecting data and SPSS-16 software for analyzing them. Correlation coefficient results showed the positive significant relation between job stress, emotional exhaustion and depersonalization while there wasn't any relation between stress and personal accomplishment ($p < 0.01$). Stepwise regression showed that respectively emotional exhaustion, age and job precedent were the most strong predictors for job stress. ANOVA results showed that those who are over 40 years old with over 18 years job precedent have less stress. T-test showed that men have more job stress but less personal accomplishment than women. Results showed that job stress and job burnout among personnel of Yazd's hospital is high that has negative effects on their functions. Thus effective methods on mental and physical health such as supporting personnel and teaching them stress control in order to enhance their mental & physical health seems necessary.

Key words: Job stress, Job exhaustion, Age, Job precedent, Hospital

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INTRODUCTION

Today stress is one of the important problems that endanger peoples' life. Employees of various organizations have one type of mental pressure named job stress [1]. Job stress threatens employees' general health. Mental and physical exhaustion, irritability, irascibility, lack of self confidence, anxiety and increasing blood pressure are some complications of stress on general health. The more intensity of these factors causes the more danger on general health [2-3].

Job stress is too costly for organizations and therapeutic centers as well as people and also decrease job satisfaction, job motive and utilization [2-4]. As the previous studies showed, the job type and job changes such as organization changes, job promotion, salary and fee are some factors which cause derangement, anxiety and worry on personnel. If these stressful factors take long time, it causes the decrease on energy, creativity and efficiency, resignation, exhaustion and aversion enhancement [5-6].

Job burnout is another word that should be noticed at work. This word was named for the first time by Freud Berger in England in 1974. As far as he concerns, job burnout is exhaustion and disability that happened for unsuitable or over use of energy. Freud Berger gave an exact definition for this word; job burnout is a syndrome made up of exhaustion, forgetting necessities, commitment to an external factor, intense and long-lasting works, self pressure, being impressed by brusque managers and paying excessive attention to returnees [7].

Maslach gave one of the most exact definitions of job burnout by making Maslach Burnout Interview (BMI) scale in 1980. In his opinion, job burnout is a psychological sign that is created by long-lasting

mental pressures reactions. Also job burnout is a multi dimensional approach that causes emotional exhaustion, depersonalization and personal accomplishment [8].

In a brief definition:

Emotional exhaustion: energy reduction, chronic fatigue & sleep disorder are physical signs which are made because of decreasing continuation motive and interest. Depersonalization: A negative reaction accompanied with inattention toward coworkers and returnees. Reduced personal accomplishment is Low or lack of success because of job dissatisfaction, failed feeling and lack of successful consequences [6, 9, 11].

Based on various researches job stress and its factors have been one of the most important social problems that get researchers and psychologist's attention during last two decades. All jobs have a level of stress but those jobs which related to people's health such as hospitals have the highest level because plenty of mental pressures like death, illness, birth, surgery, ... happen there [12-15].

Mentioned stress factors effect on mental health of hospital personnel because always they face these pressures. As an example; the fresh nurses at first are compassionate, regular and interested but after a while they become tired, disabled and wanted to be abdicated. That's why clinical jobs are one of the stressful jobs all over the world. These stresses threat mental & physical health of personnel and disturb their social functions [14].

Studying researches in Iran about mental pressures in hospitals showed that the relevant data were too limited and there were few studies about job stress & job burnout. Finally these two variables have never been studied together. So regarding the importance of mental health among hospitals personnel, this research studied the relationship of job stress with job burnout and its relevant factors in hospitals personnel of Iran. Generally researchers wanted to diagnosis and measure the relevant factors of job stress as well as assembling some proceedings in order to promote therapeutic system in Iran.

METHODS

That was a descriptive- analytic and sectional study that was done for measuring the relation of job stress with job burnout and its relevant factors in Iran. For this sake, the researchers selected the sample in randomly cluster way from two hospitals (under the control of social security office) of Yazd in 2014. The sampling method of examinees was convenience thus all nurses and personnel (450 nurse, 320 office workers) were invited to be participated in this research. The entry condition is having at least 1 year job precedent and being 20-50 years old. Materials for collecting data had three parts as below.

First: Having at least 1 year job precedent

First part: Demographic questionnaire

Demographic information such as age, gender, education level, economical condition, marriage, job precedent and work shift.

Second part: Hospital job stress questionnaire (HSS-35)

This questionnaire was made for measuring stress in hospitals and therapeutic centers and has 35 items. Each item have been graded by Lickert five parts scale; (1) never, (2) seldom, (3) normal, (4) often and (5) always. So the score of this questionnaire classified as Low job stress (35-80), Average job stress (81-130) and High job stress (over 131). Also this questionnaire has ten subscales; burdensome, inefficiency, maladjustment, role ambiguity, relationship toward chief and coworkers, work shift, physical factors, chemical factors, biological factors and ergonomic factors. Badaghi reported the high reliability of this test with Kronbach's alpha of 84% by using T-test method [16].

Third part: Job burnout interview

It was designed for measuring the intensity of triple dimension of job burnout by Maslach in 1981. It consists of 22 items and measures three aspects of job burnout. Job burnout has multi dimensional structure so subscales are being measured separately in three levels of High, Average and Low. The high level of emotional exhaustion and depersonalization subscales and low level of personal accomplishment are known as a high-level job burnout. This questionnaire has different parts as below.

9 parts for emotional exhaustion; the responders show their feeling about excessive weakness and emotional exhaustion toward returnees at work. 5 parts for depersonalization; the responders show their attitudes such as in appetite and indifference toward returnees. 8 parts for personal accomplishment; it contains personal accomplishment feeling and success at work. The scoring method is frequency that means the number of experiencing job burnout in triple dimension (The scores are: 0: never, 1: sometimes a year, 2: once a month, 3: sometimes a month, 4: once a week, 5: sometimes a week, 6: everyday). Maslach and Jackson reported the internal reliability of this questionnaire from 0.77 to 0.91 and the subscales are mental exhaustion ($r=0.90$), Depersonalization ($r=0.79$) and personal accomplishment ($r=0.71$). The scientific reliability is more than 0.90 [18].

Ethical topics

Written agreement for doing such research were taken from hospitals' chief, nurses, and supervisors of each section as well as examinees and also necessary explanations were presented for them. The examinees were assured about the secrecy of their nameless information. At the end the hospitals' managers were assured that they can have the results of this research if they want.

Statistical methods

SPSS-16 software was used for analyzing data. Colmogorov- Smirnov test (KS) was used for evaluating the normality of data and the results showed that all of them had normal distribution. Descriptive statistic, Pearson correlation coefficient, stepwise regression, one way ANOVA and T-test were used for evaluating hypotheses.

RESULTS

33 of 500 questionnaires that were being collected during four months were useless but the 467 others were analyzed as below. Mean and standard deviation of 467 participants who were about 20-50 years old was 30.22 ± 8.21 , 63.2% were female, 60.4% were married, 58.9% were BA and over, 65.1% had average economical status, 75.4% were therapeutic personnel, 51.2% had periodical shift, 43.5% were nurses and 8.4 ± 7.45 had mean job precedent.

Job stress mean among personnel was 101.18 ± 12.4 that showed the average to high level of job stress. Emotional exhaustion mean was 18.95 ± 11.23 and depersonalization mean was 6.75 ± 5.9 that showed the average amount among personnel. Personal accomplishment mean was 28.9 ± 9.85 that showed the low level of personal accomplishment among personnel. Table 1 shows the frequency and percentage of job stress and job burnout dimensions in three levels of High, Average and Low.

Table 1: The amount of job stress and job exhaustion aspects in hospital

	Variables	Classification	Frequency	Percent
Job burnout	Job stress	High (More than 131)	7	1.5
		Average (From 80 to 130)	434	92.9
		Low (Less than 80)	26	5.6
	Emotional exhaustion	High (More than 30)	75	16.1
		Average (From 18 to 20)	168	35.9
		Low (Less than 17)	224	48
	Depersonalization	High (More than 12)	113	24.1
		Average (From 6 to 11)	93	19.9
		Low (Less than 6)	261	55.9
	Personal accomplishment reduce	High (More than 33)	309	66.1
		Average (From 34 to 39)	83	17.8
		Low (Less than 40)	75	16.1

Correlation coefficient of job stress and its factors showed that there was a negative significant relation between job stress and age ($r=-0.142$), job precedent ($r=-0.136$) and Income level ($r=-0.117$) ($p<0.01$). This means the less age and job precedent of personnel the more job stress. Good economical status causes less job stress.

Pearson correlation coefficient showed the positive significant relation between emotional exhaustion ($r=0.477$) and depersonalization ($r=0.306$) while there was no relation between job stress and personal accomplishment ($p=0.01$).

Regarding the results from studying the most predicting factors related to job stress among hospitals of Yazd, stepwise regression analysis showed that emotional exhaustion variable with coefficient of $\beta=0.47$ had the most ability for predicting job stress. Nonetheless, the age with coefficient of $\beta=-0.16$ and recode of service with $\beta=-0.09$ can respectively predict significant job stress. Those variables which were not mentioned in the table didn't have significant role in predicting job stress (Table 2).

Table 2: stepwise regression analysis for predicting basic variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	91.226	.990		92.112	.000
	Emotional exhaustion	.526	.045	.477	11.688	.000
2	(Constant)	98.167	2.037		48.197	.000
	Emotional exhaustion	.531	.044	.481	11.970	.000
3	Age	-.234	.060	-.156	-3.882	.000
	(Constant)	102.320	2.810		36.413	.000
	Emotional exhaustion	.523	.044	.474	11.797	.000
	Age	-.240	.060	-.160	-4.003	.000
	Recode of service	-1.715	.803	-.086	-2.136	.033

a. Dependent variable: Job Stress

The results of Scheffe multiple comparison test of ANOVA regarding the different rate of job stress based on age, job precedent and sex among personnel showed that those who were over 40 years old with more than 18 years job precedent had the least rate of stress.

Table 3: Comparison of basic variables in males & females with using T-Test

Variable	Group	Mean	Std. Deviation	t	P-Value
Job Stress	Males	103.42	12.54	3.011	0.003*
	Females	99.87	12.13		
Emotional exhaustion	Males	18.92	11.42	-0.009	0.993
	Females	18.93	1.13		
Depersonalization	Males	7.27	6.12	1.474	0.141
	Females	6.44	5.76		
Personal accomplishment	Males	27	9.51	-3.202	0.001*
	Females	30	9.9		

* Significant at the 0.01 level

The results of table 3 by the use of T-test showed that the male personnel have more job stress but less personal accomplishment than female (P=0.05) (Table3).

DISCUSSION

The results of this study show that the majority of hospital personnel have average job stress (0.92.2) and these results comply with Zeighami's survey (2011). He showed the average job stress (0.86.7) among nurses (6). Also Enjezab (2002) showed the average job stress (0.7301) among therapeutic personnel [19].

The present study shows the average to low level of emotional exhaustion among hospital personnel. The results are not complying with what Sotudeh said in his research. He reported the average to high level of emotional exhaustion among nurses [20]. Psychologically emotional burnout which consists of mental exhaustion, shortage of energy, shortage of interest and enjoyment has a negative effect on personnel and make them depressed and helpless [11]. So it seems necessary to make hospital a joyful and motivate place for personnel in order to enhance their mental health.

Depersonalization on hospital personnel is low. That means the low level of distrust and unsuitable behaviors toward the others and among personnel. Indeed when personnel don't take appropriate encouragement at work, they don't do their duties and also roles become worthless for them to obey. Accordingly the environment become uncomfortable and they lose their humanistic sight to care patients that is called depersonalization [21]. These results are complying with Sotudeh study [20]. But Khazaei showed the intense depersonalization among personnel [21].

The majority of personnel in this research had low personal accomplishment. That means most of hospital personnel are dissatisfied and has negative attitude toward their jobs. Personnel can't show their ability appropriately at work because of these factors. These results were complying with Zeighami study [6]. The results of Khajeh Aldin study (2006) showed that most of nurses had average personal accomplishment [22,6].

Recognizing the important relevant factors of stress denoted that the less age ($r = -0.142$) and less job precedent ($r = -0.136$) among hospital personnel the more job stress. Zeaghmi (2011) in his study showed that there was no relation between stresses, age and job precedent while those who were BA and over had more job stress [6].

Also he showed the negative relation between job stress and Income level ($r = -0.117$) and this results are complying with Aziznejad study. He showed that low salary and economical status are the main factors for stress and intense job burnout [23].

The results of correlation coefficient showed that the more job stress the more job burnout dimensions (emotional exhaustion & depersonalization) while job stress didn't have any relation with personal accomplishment. This results were complying with Abdi (2001) that showed the significant relation of job stress with emotional exhaustion & depersonalization with personal accomplishment [5].

The results of stepwise regression showed that emotional exhaustion ($\beta = 0.47$), age ($\beta = -0.16$) and job precedent ($\beta = -0.09$) respectively has the most ability for predicting job stress among other variables of this research. That means young and fresh personnel experience more stress than old and experienced ones that is an effective factor on mental aspect and emotional burnout.

The results of one-way ANOVA showed a significant difference of job stress among groups considering the study of different job stress based on age and job precedent among hospital personnel ($p = 0.01$). The results of Scheffe multiple comparison showed that those personnel who were over 40 years old and had over 18 years job precedent had less stress than young and fresh personnel. Also the T-test results

showed that male personnel have more job stress but less personal accomplishment than female considering different job stress survey based on age among hospital personnel. But there was no significant difference between emotional exhaustion and depersonalization among both groups (the prior researches didn't mention such problems).

CONCLUSION

The average to high score of job stress, the average scores of emotional exhaustion and depersonalization and also the low scores of personal accomplishment show that job stress and job burnout among hospital personnel of Yazd is high. It seems that the work condition in Yazd's hospitals are accompanied with different stresses that effect on personnel functions and especially has negative effect on personnel mental physical health . So it's better to give hands from mental health experts in hospitals. They can enhance mental and physical health of hospital personnel by using effective methods on health such as supporting personnel, intervening and teaching them to control their stress. However the researchers tried to decrease the limitations and errors by increasing the number of samples and omitting uncompleted questionnaires, this research had some special limitations. Some of them were:

- None-random sampling
- Falsification of answers by responders
- Carelessness while answering the questions

Nevertheless considering some intervention methods for decreasing job stress in hospitals specially nursing is suggested for researchers and also measures its effects on job satisfaction.

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