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An Investigation of Job Stress and Job Burnout in Iranian Clinical Pharmacist

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ABSTRACT

***Background*:** Stress is an important element of organization ineffectiveness and since it leads to sickness, eventually it reduces quality and quantity of health care, lead to expansion of it costs and low job satisfaction. Stress comes along with consequences, one of this reactions which comes along with horrible effects is job burnout. Health care are more exposed for job burnout. We examined the relationship between job stress and job burnout in Iranian clinical pharmacist.

***Methods*:** Sample was 50 of men and women of clinical pharmacist. Parker and De cotiis scale (1983) and Maslach Burnout Inventory (MBI, 1981) were used to asses clinical pharmacist stress and burnout. Data were analyzed by applying regression method.

Results: Results indicated that there is strong relationship between stress and burnout and its three dimensions. The result also indicated that stress have the highest impact on emotional exhaustion and the least on the depersonalization

***Conclusion*:** Burnout is a result of stress in human services career. Human service needs are vary from other professions since in these jobs in order to fulfill the clients' needs, employees should use themselves as the required technology, and in return they do not receive gratitude or appreciation.

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Introduction

The 20th century began for pharmacist as their job was to supply, prepare and assessing medicine drugs. This image of the pharmacist changed 25 years ago; drug becoming more complicated and researching into drug effects and their mechanism leads to creating elaboration of pharmacology, with all new information and heavy tasks, pharmacist regained their respect and begun practicing clinical pharmacy (1).

In the Clinical Pharmacy Survival Guide, clinical pharmacy is described as a" name for a series of patient-related services, including prescription monitoring, therapeutic drug monitoring and patient counseling" (2).

Stress is an important element of organization ineffectiveness, turnover, and since it leads to sickness, it can reduce the quality and quantity of health care, cause expansion of it costs and leads to low job satisfaction. People in different jobs, face different amount and kinds of stress (3). It is reasonable to draw the conclusion that people in human services face a high amount of stress (4), and also people in health care struggling with high pressure and high stress.

Because of their working condition like long working hours, high work load, poor communication, frequent disturbance and insufficient feedback, physicians

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deal with high stress. Research indicates that these physicians who were stressed, were also dissatisfied, burned out and drugs with more side effects were more often prescribed by them (5). In addition, because high stress has horrible consequences for nurses, there have been researches about antecedents and outcomes of nurses' stress (6). But pharmacies haven't received sufficient attention in this area and stress has been researched in pharmacy profession only in general (7).

Stress comes along with consequences, one of these reactions which comes along with the horrible effects is job burnout (8). Job burnout syndrome was distinguished in the 1960s, but this term "job burnout" was first coined by Freudenberger in 1974 in human services (9). Although job burnout can be described in few words "state of mental and physical exhaustion" Maslach and Jackson (1981) gave us the best definition: "long-term stress response of an individual to prolonged exposure to emotional and interpersonal stresses at work, which encompass emotional exhaustion, depersonalization, and reduced personal accomplishment"(10). As Maslach believed exhaustion is a necessity, but enough for burnout, however, exhaustion can't break down the critical relationship that employee have with their work, but it causes the employee to separate emotionally and cognitively from their work (8). Burnout syndrome goes through sequence incremental phases: at the beginning continual lack of energy, fatigue, illness, and low job performance, this stage will be followed by behavioral and physical reactions, such as anxiety, irritation, inertness and also a negative attitude toward the job and people. At the end detachment from job and family will come along. The most horrible consequence of job burnout is destroyed careers and family life. At the last phase one of potential consequence can be committing suicide. By avoiding job related and personal incompatible outcomes, these outcomes are reversible at any stage (11).

Certain occupations have a higher risk for burnout, specifically for health care worker. Heavy workload, long working hours, night shifts and medical career unique stressors make health care more exposed for job burnout (12). Since burnout is more common in health care professions and pharmacy seems too stressful, burnout is a concern of pharmacies. The risk factor for job burnout are quite suitable for practicing pharmacies, such as job stress, fatigue and boredom. Despite all these facts, there is not much known about the frequency and consequences of pharmacist job burnout (9). There is even less research about pharmacist job stress and job burnout in Iran. Therefore, in the present study, we examine the relationship between job stress and job burnout in Iranian's clinical pharmacist.

Methods

Population and sample

It was difficult to use a strong random sampling due to their small number dispersion in three different universities and as a result population for this study were all the clinical pharmacists in Iran, and sample were all of the clinical pharmacists whom attended at the annual seminar of pharmacy in 2014. The sampling method was available sampling. The sample population was 50 males and females clinical pharmacists.

Measures

Data collection method was a self-reporting questionnaire. All the questionnaire in this study was validated scales. Parker and De cotiis (1983) 13-item scale was used to assess job stress. A scale with a 5 point likert, from strongly agree to strongly disagree (13). The highest possible score for scale is 65 and the lowest is 13 which higher score means higher job stress. Cronbach's Alpha in the research for this stress scale was 0.88.

Maslach Burnout Inventory (MBI, 1981) was used to measure burnout. This inventory was designed by Maslach and Jackson in 1981 in order to measure hypothesized aspects of the burnout syndrome with 22 items in 5 points-likert with three subscale: lack of Personal Accomplishment, Emotional Exhaustion and Depersonalization. In contrast with other two subscales, the 8 items which measure personal accomplishments define lower score as more experienced burnout and as a result it scores revers. The highest possible score for scale is 110 and the lowest is 22. Nine items measure Emotional subscale Exhaustion and 5 items measure Depersonalization subscale (14) .Cronbach's Alpha for MBI scale in this research was 0.92.

Statistical analysis

For presenting the results, both descriptive and analytical statistics were used. Data were analyzed using the Statistical Package for Social Sciences 17.0 (SPSS). Regression is statistical method used for analyzing the contribution and relation among variables (15). The level of significance was considered at 0.05.

Results

Demographic data are presented in Table 1. Out of 50 respondents 21 were males and 29 were females and over half of the respondents were from Tehran University of Medical Sciences (58%), over half of them worked in the hospitals (58.0) and half of the respondents were resident at the time.

Descriptive Statistics about all respondents according to different gender, university, whether they work in the hospital or not and age for job stress are presented in Table 2.

Table 1. Respondent's demographic data.

	Frequency	Percent		Frequency	Percent
Gender			**Working at the Hospitals**		
Female	29	58.0	YES	28	56.0
Male	21	42.0	NOT	21	42.0
Total	50	100	NON respond	7	14.0
University			Total	50	100
Tehran University of Medical Sciences	29	58.0	**age**		
Shahid Beheshti University of Medical Sciences and Health Services	11	22.0	24-30	24	48.0
Mazandaran University of Medical Sciences	6	12.0	30-40	18	36.0
NON respond	4	8.0	40-50	1	2.0
Total	50	100	NON respond	7	14.0
			Total	50	100
Clinical pharmacy PH.D.	24	48.0			
Clinical pharmacy Resident	26	52.0			
Total	50	100			

Table 2. Descriptive Statistics data for job stress.

Stress	Minimum	Maximum	Mean	Std. Deviation
Female	24.00	57.00	44.1774	8.46318
Male	18.00	57.00	41.5688	10.70036
Tehran University of Medical Sciences	23.00	57.00	41.4345	8.85317
Shahid Beheshti University of Medical Sciences and Health Services	18.00	55.00	41.6364	11.19172
Mazandaran University of Medical Sciences	35.00	55.00	48.3575	7.96213
Clinical pharmacy PH.D.	24.00	56.00	46.2558	7.65329
Clinical pharmacy Resident	24.00	56.00	46.2558	7.65329
24-30	23.00	57.00	44.0461	9.35056
30-40	18.00	57.00	39.1466	9.62036
40-50	44.34	44.34	44.3444	44.34
Working at the Hospital	18.00	57.00	42.0477	10.27479
NOT working at the Hospital	27.00	55.00	41.6932	8.28566

Descriptive Statistics according to gender, university, whether they work in the hospital are not and age for burnout are presented in Table 3.

Job stress and job burnout were strongly correlated $r = .64$, $p = 0.00$ Significant regression equation was found, the result of regression is presented in the Table 4.

The result of the regression indicated that stress has the highest impact on emotional exhaustion and the least on the depersonalization. The general linear model of the regression equation is presented in Figure 1.

Discussion

The results from this study showed that there is a strong correlation between job stress and job burnout in Iranian clinical pharmacist. As schaufeli states stress is an increasing phenomena in industries countries, especially in human services (16). Stress repair employees' physical and mental health and determination of employees,

Table 3. Descriptive Statistics data for burnout.

Burnout	Minimum	Maximum	Mean	Std. Deviation
Female	33.00	80.00	57.6552	12.98426
Male	25.00	89.00	49.5711	16.30720
Tehran University of Medical Sciences	25.00	80.00	50.7713	14.09719
Shahid Beheshti University of Medical Sciences and Health Services	34.00	77.00	60.8182	14.33051
Mazandaran University of Medical Sciences	33.00	68.00	53.5000	14.76144
Clinical pharmacy PH.D.	25.00	71.00	48.1663	13.61371
Clinical pharmacy Resident	33.00	89.00	59.8846	13.94081
24-30	25.00	89.00	59.0833	15.59241
30-40	18.00	57.00	39.1466	9.62036
40-50	47.62	47.62	47.6238	
Working at the Hospital	25.00	89.00	52.1377	14.74406
NOT working at the Hospital	26.00	80.00	52.5000	14.59057

Table 4. Result of regression for burnout and its three dimension.

	df*	R	R Square**	Unstandardized Coefficients		Standardized Coefficients (Beta)	F***	Sig
				B	Std. Error			
Emotional Exhaustion	48	0.71	0.51	0.56	0.079	0.717	50.89	.000
Lack of Personal Accomplishment	48	0.50	0.25	0.30	0.074	0.507	16.62	.000
Depersonalization	48	0.41	0.17	0.149	0.047	0.413	9.89	.003
General burnout	48	0.64	.417	1.016	.173	0.646	34.35	.000

* This is the degrees of freedom associated with the sources of variance. The total variance has N-1 degrees of freedom. The model degrees of freedom corresponds to the number of coefficients estimated minus one.
**R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression
***The F value is the ratio of the mean regression sum of squares divided by the mean error sum of squares. Its value will range from zero to an arbitrarily large number. The value of Prob (F) is the probability that the null hypothesis for the full model is true (i.e., that all of the regression coefficients are zero).

which leads to less productivity and can cause increased disability in a working population (17). Our results indicated stress has the highest effect on emotional exhaustion, as Schaufeli indicated that the significant role of stress on emotional exhaustion which is the key element of job burnout (16). For those professions who work continuously with people, long time stress can be emotionally exhausting and bring up the risk of burnout (14). It has been proved Burnout can be a result of chronic stress and undermines human services and health employee's effectiveness and efficacy (18).

Shinn et al., (1989) believe that burnout is a result of stress in human services career. Human service needs are varied from profession since in these jobs in order to fulfill the client's needs, employees should use themselves as the required technology, and in return they do not receive gratitude or appreciation. Nowadays human services professionals believe that they can have gain achievement and get their deserved gratitude by credentials, that they are going to have control over their job and their clients are going to cooperate with them. hence, they are going to feel valuable, and stimulate through meaningful job and they are going to have cooperative and sportive Colleague. Of course reality is far away from these ideas in human services (4). These ideal goes even further in medical and health career. It appears that problem starts at medical schools, where there is high competitive climate, search for perfections, control along with responsibility for it and trying not to show any vulnerability (12). All these factors put too much pressure on medical school

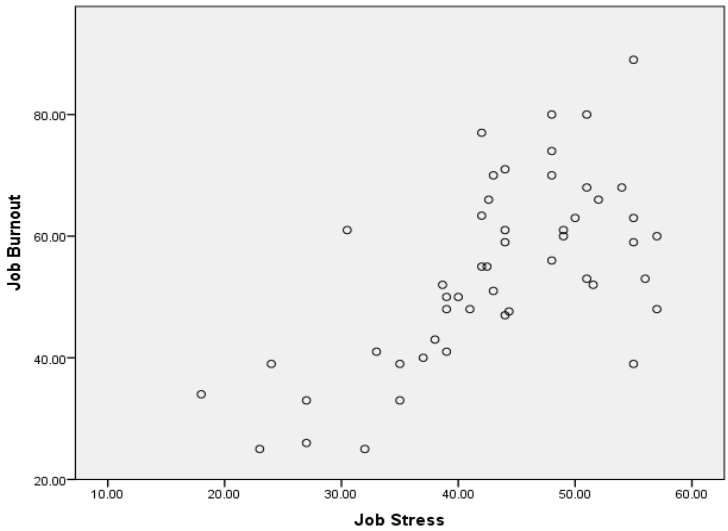

Figure 1. The general linear model of regression equation for job stress and job burnout.

students, which come along with high stress when they actually start their career.

"Clinical pharmacists must be able to identify patient problems, implement and manage patient pharmacotherapy, dispense and administer medications as needed, educate patients, monitor drug therapy, and consult with other patient care providers to improve patient outcomes"(19). Also nowadays, the increasing need for medication has a negative effect on pharmacists work. These all mean constant interaction with patients and clients in not very pleasant environment, which can eventually bring a high stress along.

Since there is a strong relation between job stress and job burnout in the pharmacist and also burnout out can have a devastating result, both for clinical pharmacist and the patient and also the number of Iranian clinical pharmacist are quite a few, we suggest to control job stress in the clinical pharmacists either by controlling job stressor, changing job environment or by using a personal method (e.g. meditation or etc.). In this way it is possible to prevent loss of great educated and valuable workforce.

In this study, we did not control the moderating factor that can affect the relationship between job stress and job burnout like social support, personal character and so on. For future research, we suggest to control these variables, and also we suggest to test the relationship between stress and other kind of stressor like workload, time pressure, role conflicts or role ambiguity.

Reference

1. Strand LM, Cipolle RJ, Morley PC. Pharmaceutical care: an introduction: Upjohn Kalamazoo, Mich.; 1992.
2. Franklin BD, van Mil JF. Defining clinical pharmacy and pharmaceutical care. Pharm World Sci 2005;27(3):137.
3. AbuAlRub RF. Job stress, job performance, and social support among hospital nurses. J Nurs Scholarsh 2004;36(1):73-8.
4. Shinn M, Rosario M, Mørch H, Chestnut DE. Coping with job stress and burnout in the human services. J Pers Soc Psychol 1984;46(4):864-76.
5. Voltmer E, Rosta J, Siegrist J, Aasland OG. Job stress and job satisfaction of physicians in private practice: comparison of German and Norwegian physicians. Int Arch Occup Environ Health 2012;85(7):819-28.
6. Chang EM, Hancock KM, Johnson A, Daly J, Jackson D. Role stress in nurses: review of related factors and strategies for moving forward. Nurs Health Sci. 2005;7(1):57-65.
7. Lapane K, Hughes C. Baseline job satisfaction and stress among pharmacists and pharmacy technicians participating in the Fleetwood Phase III Study. Consult Pharm 2004;19(11):1029-37.
8. Rothmann S, Jackson L, Kruger M. Burnout and job stress in a local government: The moderating effect of sense of coherence. SA Journal of Industrial Psychology. 2003;29(4): 52-60.
9. Johnson RE, Ried LD, Robertson N. Self-reported burnout among HMO pharmacists. J Pharm Mark Manage 1987;2(2):107-27.
10. Peng J, Li D, Zhang Z, Tian Y, Miao D, Xiao W, et al. How can core self-evaluations influence job burnout? The key roles of organizational commitment and job satisfaction. J Health Psychol 2016;21(1):50-9. .
11. Golembiewski RT, Munzenrider R. Phases of psychological burn-out and organizational covariants: A replication using norms from a large population. J Health Hum Resour Adm 1984;6(3):290-323.
12. Rössler W. Stress, burnout, and job dissatisfaction in mental health workers. Eur Arch Psychiatry Clin Neurosci 2016 Apr 19; In Press.
13. Parker DF, DeCotiis TA. Organizational determinants of job stress. Organizational Behavior and Human Performance 1983;32(2):160-77.
14. Maslach C, Jackson SE. The measurement of experienced burnout. Journal of Occupational Behavior 1981;2(2):99-113.
15. Pedhazur EJ. Multiple regression in behavioral research: Explanation and prediction. 1997.
16. Schaufeli W, Enzmann D. The burnout companion to study and practice: A critical analysis: CRC press; 1998.
17. Cooper CL. Theories of organizational stress: Oxford University Press; 1998.
18. Lloyd C, King R, Chenoweth L. Social work, stress and burnout: A review. Journal of Mental Health 2002;11(3):255-65.
19. Burke JM, Miller WA, Spencer AP, et al. Clinical pharmacist competencies. Pharmacother 2008;28(6):806-15.