

Evaluation of Psychological Work Environment's Effect on Workers' Productivity in Baghdad City

تقويم تأثير بيئة العمل النفسية على إنتاجية العاملين في مصانع مدينة بغداد

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المستخلص:

الهدف: لتقويم تأثير بيئة العمل النفسية على إنتاجية العاملين في مصانع قاطعي الرصافة والكرخ في مدينة بغداد.
المنهجية: تم استخدام تصميم وصفي تقويمي من خلال الدراسة الحالية للفترة من الخامس والعشرون من مايس ٢٠١٢ إلى السابع من كانون الثاني ٢٠١٤. أختيرت عينة غرضية "غير إحصائية" مكونة من (٥٠٠) عامل من مصانع قاطعي الرصافة والكرخ في مدينة بغداد. تم بناء إستمارة إستبائية لجمع البيانات والتي ساعدت في تحقيق هدف الدراسة. تم تحديد صدق محتوى الإستمارة من خلال الحصول على آراء مجموعة من (١٠) خبراء والثبات من خلال الدراسة الإستدلالية ومن خلال الثبات الداخلي والذي تم تحديده من خلال حساب معامل الارتباط "كرونباخ ألفا" للمقياس اعتمادا على البيانات المجموعة من العاملين. تم تحليل البيانات من خلال تطبيق إجراءات التحليل الإحصائي الوصفي للبيانات كالتكرار والنسبة المئوية والوسط الحسابي والوزن والإنحراف المعياري وإجراءات التحليل الإحصائي الإستدلالي كمعامل الارتباط "كرونباخ ألفا" ومعامل الكفاية والتضاد المتعدد.
النتائج: بينت نتائج الدراسة بأن بيئة العمل النفسية كانت مساهمة بشكل كبير وواضح في خلق المشكلات النفسية (٤٣%) وبشكل متوسط وبيئة خالية من المشكلات النفسية (٤٩,٩%). أغلبية العاملون من سوء الصدف تكون مستويات إنتاجيتهم متوسطة (٢٠,٦%) ومتدنية (٨,٣٨%) كنتيجة لتأثير مؤشراتها.
التوصيات: توصي الدراسة إلى بناء وتنفيذ برنامج مهني موجه نحو التربية الصحية مع التركيز على أثر بيئة العمل النفسية على إنتاجية العاملين وتنفيذه في أوسع نطاق وإجراء بحوث أخرى على عينة كبيرة وعلى المستوى الوطني.

Abstract

Objective: To evaluate the psychological work environment's effect on the workers' productivity in Baghdad City industries at Al-Rusafa and Al-Karkh Sectors.

Methodology: A descriptive evaluation design is employed throughout the present study from May 25th 2012 through January 7th, 2014. A purposive (non probability) sample is selected for the study which includes (500) workers from industries at AL-Russafa and AL-Kerch sectors in Baghdad City. A questionnaire is constructed to gather data which may assist to achieve the objective of the study. Content validity of the instrument is determined through eliciting the opinions of a panel of (10) experts and the reliability through a pilot study by using internal consistency reliability which is determined through the computation of the Cronbach alpha correlation coefficient of the scale on data gathered from workers. Data are analyzed through the application of descriptive statistical data analysis procedures of frequency, percentage, mean, weighted mean and standard deviation and inferential statistical data analysis procedures of Cronbach alpha correlation coefficient, relative sufficiency, and multiple regression.

Results: The findings depict that the psychological work environment is manifested as greatly psychological problem creating one (43%); moderately psychological problem creating environment (49.4%) and problem free environment. The vast majority of the workers has unfortunately experienced moderate (60.2%) and low (38.8%) levels of productivity as a result of the influence of its indicators.

Recommendations: The study recommends that Occupational-oriented health education program with emphasis on psychological work environment, and its impact upon workers' productivity can be constructed and implemented for workers on a wide-range scale. Further research can be conducted on large sample size and nation-wide.

Keywords: psychological work, environment's effect, Occupational-oriented, health education program

Introduction:

Work environments have many properties that may affect the workers' well-being. Here, the concern is to better understand those aspects of work environments which are thought to be important influences work environment psychological and social on the productivity of workers⁽¹⁾.

The way in which work environments create psychological environments is somewhat less transparent and less direct. Two issues are relevant here. First, a great number of aspects of the work environment could potentially affect psychological well-being because; the interpretations which workers make of their working conditions have a central role in producing psychological well-being. It is not therefore possible to state with certainty that particular aspects of work will necessarily have an impact on well-being as it depends crucially on the way in which work is perceived. The second issue is that it may often be the combination of a number of key work conditions present, which are important for psychological wellbeing. Any single work characteristic alone may not be particularly relevant but, rather, it is the total configuration of these characteristics^(2, 3).

The psychological conditions people experience in the workplace, often referred to as the psychological work environment, have become a regular component in studies of stress and occupational health^(4, 5, 6, and 7).

The psychological environment can be thought of, more specifically, as those features of the work environment which are relevant to worker behavior. By behavior, the three related types of psychological phenomena are considered: affect (e.g. emotions, mood, psychological symptoms, affective disorders); cognitions (e.g. attitudes, perception, decision-making); and behaviors (e.g. effectiveness, absence, motivation). The psychological environment is, therefore, the

set of those characteristics of work environment that affect how the worker feels, thinks and behaves. Here, the focus will be particularly on affective responses⁽⁸⁾.

Psychological work environment plays a vital role in motivating workers productivity to perform their assigned work. This is contributed to increase in productivity also can influence society more broadly, by improving living standards and creating income⁽⁹⁾.

As a result, the present study ought to evaluate the psychological work environment's effect on the workers' productivity in Baghdad City industries at Al-Rusafa and Al-Karkh Sectors.

Methodology:

A descriptive evaluation design is employed throughout the present study from May 25th 2012 through January 7th, 2014. A purposive (non probability) sample is selected for the study which includes(500) workers from the Ministry of Industry and Minerals State Batteries Manufacturing Company; Industry and Minerals State Electrics Manufacturing Company; Industry and Minerals State plant oil Manufacturing Company at AL-Russafa Sector in Baghdad City; and Industry and Minerals State Textile cotton Manufacturing Company; Industry and Minerals State Textile Wool Manufacturing "Al-Kadhimiya Factory" and Industry Minerals State Mechanic Carpets Manufacturing Company at AL-Kerch Sector in Baghdad City. A questionnaire is constructed to gather data which may assist to achieve the objective of the study through evaluation of psychological work environment's effect on the workers' productivity at Al-Rusafa and Al-Karkh Sectors in Baghdad City industries. Content validity of the instrument is determined through eliciting the opinions of a panel of (10) experts and the reliability through a pilot study by using internal consistency reliability which is determined through the computation of the

Cronbach alpha correlation coefficient of the scale on data gathered from workers.

Data are collected through the use of the study instrument and interview technique as means of data collection.

Data are analyzed through the application of descriptive statistical data analysis procedures of frequency, percentage, mean, weighted mean and standard deviation and inferential statistical data analysis procedures of Cronbach alpha correlation coefficient, relative sufficiency, and multiple regression.

Total score of psychosocial work environment's items is computed and divided into three levels as poor (44-72); moderate (73-101); and high (102-129) for the evaluation of such environment.

Total score of productivity indicators, items is computed and divided into three levels as low (18-42); moderate (43-66); and high (67-90) for the determination of productivity.

Results:

Table 1. Mean, Standard Deviation, Weighted Mean and Relative Sufficiency of Psychological Work Environment

List	Item	M (SD)	Weighted Mean	Relative Sufficiency
	Stress			
1	I feel that the work is boring and over whelming.	2.9 ±1.3	79.7	0.63
2	I feel that there is no just in job performance evaluation.	3.1± 1.45	106.7	0.85
3	I am threatened to loss the job	2.1± 1.4	70.06	0.26
4	I face work related problems which make me wake during the night.	1.9 ±1.25	64.7	0.23
5	I complains of the absence the apportioning to participate in decision make and solving the word-related problems.	2.1± 1.2	72.6	0.35
6	I feel unsafe in the work plan.	2.2 ±1.37	75	0.34
7	Lack of reward and encouraging pension in the field of work.	1.6 ±0.97	52.87	0.16
8	Disorganization of daily working hours	2.9 ±1.46	98.33	0.79
9	Lack of support from the work management and supervisor.	2.2 ±1.3	73.93	0.33
10	I feel unjustified and unaccepted about the nature of my work.	2.6 ±1.4	87.67	0.57
11	My work requires that my back should remain bended.	2.95 ±1.4	98.33	0.81
12	My work requires lifting heavy object for many cases.	2.6 ±1.5	87.4	0.47
13	I work on the same move for long period.	3.0 ±1.4	103.13	0.81
14	My work requires remain standing long with working hours.	3.2 ±1.5	101	0.66
15	I confront to threat of being fired by the employer because of the work by temporary contract or daily pay.	1.8 ±1.3	59.53	0.17
16	Lack of participation in decision-making about the nature of work.	2.6 ±1.45	87.67	0.53
17	The light is insufficient and affecting on my work	2.7 ±1.6	89.53	0.50
18	I feel that the light increase my fascinating performance.	3.3 ±1.5	111.27	0.67
19	My work system fallows central ventilation system.	2.0 ±1.4	66.33	0.23
20	The manager the continuity and maintenance of	2.1 ±1.3	72.13	0.21

Table 1. Continues

	the ventilation system.			
21	There is unwanted smell at the work place while causes inability to keep the working hours on continuing.	2.8 ±1.5	92.47	0.58
22	I feel that there is fluctuation in the work place temperature.	3.4 ±1.45	113.87	0.67
23	High and low temperature can affect the nature of productivity at the work place.	3.5 ±1.5	115.49	0.64
24	Machines vibration makes me feel unsafe which effect on my job performance.	2.5 ±1.4	84.87	0.50
25	I feel high levels of noise which effect on hearing and difficulty in speech and interaction to the work environment.	3.3 ±1.5	111.06	0.86
26	My work place is crowded and I feel discomfort in work hour's investment.	2.5 ±1.4	83	0.46
	Work Hours			
27	I work evening and night shift in addition to morning shift.	1.4 ±0.1	47.53	0.12
28	Working dose not present me with flexibility in my working hours.	1.95 ±1.3	65.27	0.23
29	Evening and night work make me lack in sleep.	1.6 ±1.08	52.47	0.14
30	Shifts working influence my family vital hours.	2.2 ±1.4	77	0.32
31	I feel unsatisfied and having a justment problem with the nature of work schedules.	2.3 ±1.3	76.67	0.37
32	Shifts working present no enough time to relax and going back actively to work in the next day,	2.5 ±1.4	75.07	0.32
33	Working in shift make me feel delinquent toward my family ties.	2.3 ±1.4	79.29	0.36
34	There is an appropriating for promotion which I can seek.	2.0 ±1.2	67.6	0.28
35	I feel that there is high levels of time pressure on work.	2.46 ±1.3	82.06	0.51
	Extra Hours			
36	I compensate holidays and vacations hours during my break.	2.2 ±1.4	72.13	0.29
37	I accomplish my work throughout irregular work hours.	1.3 ±0.84	44.53	0.11
	Smoking			
38	I smoke as a result of the effect of the work environment on my psychology.	2.4 ±1.6	79.33	0.30
39	Because of smoking my daily income is influenced.	2.6 ±1.6	87.73	0.42
40	There is warning from the factory administration that probes smoking at the work place.	2.8 ±1.6	93.73	0.54
41	I 'am exposed to decline in my health status become of smoking.	3.2 ±1.7	107.26	0.56
	Alcohol			
42	I drink alcohol as a result of the work environment on my psychology.	1.3 ±0.75	43.8	0.11
43	I feel lovely and lack of relation with colleagues because of drinking alcohol.	1.5 ±1.1	49.13	0.12
44	I am exposed to problems and troubles with the work supervisors because of drinking alcohol.	1.5 ±1.1	51.33	0.13
45	Absent and discontinuity of work due to drinking alcohol effect on the working.	1.7 ±1.4	56.06	0.13
46	Drinking a lot of alcohol influence the monthly income.	1.8 ±1.5	52.33	0.16
	Violence			

Table 1. Continues

47	There is incidence of violence and fight between workers and supervisors at the work.	2.0± 1.1	66.27	0.30
48	There is incidence of force shoots at the work place.	1.1 ±0.51	37.6	0.08
49	There is incidence of violence outside the work while slant with the work place.	1.8 ±1.0	59	0.19
50	The factory administration is tough and injustice and uses unfair supervision approaches.	2.0 ±1.5	76.87	1.51
51	There is an electronic observation system to monitors the aggression and violence.	1.3 ±0.9	45.07	0.11
52	There are workers with history of aggression in their life which is reflected at the work.	2.0 ±1.2	66.07	0.25
53	Divorced and unmarried women face incidence of harassment and aggression.	2.2 ±1.4	71.73	0.27
54	Old age workers are become more vulnerable to violence more than other at the work content.	1.4 ±0.8	45.6	0.11

M: Mean; SD: Standard Deviation

This table presents that the most important items are “I feel high levels of noise that effect on hearing and difficulty of talking and dealing at the work surrounding”; “I feel that there is no justice in assessing the work”; “My work necessitates my back bending”; “I preserve the same movement for long times”; and “There is an irregularity of daily work schedule” (relative sufficiency = 0.86, 0.85, 0.81, 0.81, 0.79) respectively.

Table 2. Evaluation of the Psychological Work Environment

List	Level	Frequency	Percent
1	Poor (44-72)	215	43.0
2	Moderate (73-101)	247	49.4
3	High (102-129)	38	7.6

This table reveals that the psychological work environment is accounted as a moderately psychological problems-free environment for of the workers less than the half of (n = 247; 49.4%); poor or psychological problems creating ones by more than one third of the workers (n = 215; 43.0%); and good environment by few workers (n = 38; 7.6%).

Table 3. Evaluation of Productivity Indicators

List	Level of Productivity	Frequency	Percent
1	Low (18-42)	194	38.8
2	Moderate (43-66)	301	60.2
3	High (67-90)	5	1
	Total	500	100.0

This table indicates that more than half of the workers has moderate level of productivity (n= 301; 60.2%); more than one third of them has low level of productivity (n = 194; 38.8%); and just few of them has high level of productivity (n = 5; 1.0 %).

Table 4. Mean Standard Deviation, Weighted Mean and Relative Sufficiency of Productivity Indicators

List	Item	M (SD)	Weighted Mean	Relative Sufficiency
1	There is lack and inability to operate machines and different equipment.	2.6 ±1.4	86.6	0.53
2	I feel that the productive work is no more than mean to earn income. ccc	2.8 ±1.5	92	61
3	There is insufficiency of the appropriate equipment and its maintenance.	3.0 ±1.35	101.73	0.83
4	There is many changes at work that may result into instability.	2.8 ±1.3	94.6	0.65
5	There an opportunity for learning and training which	2.0 ±1.2	68.2	1.8

Table 4. Continues

	is presented by the administration for the impotent of workers.			
6	I feel that the administration is effective in productivity development and improvement	2.3 ±1.3	75.73	0.38
7	High-level administration encourages thought and creations at the workplace.	2.0 ±1.3	65.33	0.24
8	I feel that the administration encourages and presents rewards to well-done work.	1.9 ±1.2	64.93	0.26
9	The administration has clear vision about the right trends of work development and improvement.	2.0 ±1.3	74.4	0.41
10	I have feeling that investment of skill and energy-related work is hard to do.	2.7 ±1.2	8808	0.58
11	There is un justice in classifying workers with regard to their creativity.	3.5 ±1.5	115.86	0.63
12	Work expertness lack in supervision and follow-up.	2.8 ±1.3	93.9	0.62
13	High and necessary technology as being appropriate to the nature of work and product is applied.	2.0 ±1.13	66.86	0.31
14	Work is highly sophisticated and overload, as well as is inappropriate with worker's ability and work hours.	2.26±1.25	75.33	0.40
15	Work is disorganized and out of control.	2.25±1.29	74.46	0.36
16	There are changes that creates perspectives toward unlimited economic growth.	1.9± 1.1	63.73	0.26
17	The work place is designed according to the standards of cost-effectiveness.	2.0± 1.1	67.27	0.32
18	Increase in electricity disruption causes decline in productivity level.	3.5± 1.4	119.6	0.64

M: Mean; SD: Standard Deviation

This table shows that the most important items are "Inadequacy of appropriate devices for my work and its maintenance"; "There are a lot of changes and interruption of work lead to confusion and instability of work"; and "The often lack of electrical current what lead to reduction of productivity rate" (relative sufficiency = 0.83, 0.65, 0.64) respectively.

Table 5. The Relationship between Psychological Work Environment and Productivity Indicators

Variables	Standardized Coefficients		df	F	Sig.
	Beta	Standard Error			
Stress	.227	.044	3	26.703	.000
Work Hours	.173	.043	2	16.276	.000
Extra Time	.104	.041	2	6.318	.002
Smoking	.067	.041	2	2.727	.066
Alcohol	-.052	.042	1	1.563	.212
Violence	.120	.043	2	7.747	.000

df= Degrees of Freedom, F= F-Statistics, Sig.= Level of Significance

This table depicts that there are highly significant relations between stress, work hours, and violence and production (P-value = 0.000) for each of these variables, and there were significant relationship between extra time, smoking and productivity (P-value = 0.002), (P-value = 0.066) respectively.

Analysis of this relationship indicates that stress, work hours, violence, extra time, and smoking have significant impact upon the productivity as indicators of the psychological work environment.

Discussion:**Part I: Evaluation of the psychological work environment**

Throughout the course of the data analysis of this domain, its overall evaluation depict that their levels have been manifested as greatly psychological problem creating one (43%); moderately psychological problem creating environment (49.4%) and problem free environment(7.6%)(Table 3). Such influence of the psychological work environment is accounted for that of the most important items of 1,2,8,10,11,12,13, 14,16, 17, 18, 22, 23, 24,25, 35, 40 and 41 with respect to a relative sufficiency of (50 and more) (Table 4). This finding present's evidence that the psychological work environment can be accounted as problem-creating work environment.

In a survey, the relationship between psychosocial work environment and perceived indoor air problems is examined on 122 office workplaces with 11 154 employees in Helsinki, Finland. The results support the hypothesis that psychosocial factors in the work environment play a significant role in indoor air problems at workplaces⁽¹⁰⁾.

The association between the interpersonal relationships at work, as being regarded as an important component of the psychosocial work conditions, and organizational factors; working conditions and health has been studied⁽¹¹⁾. The study findings depict that improvements in psychosocial working conditions may help to diminish conflicts and exclusion. Promoting good interpersonal relationships at work may help to reduce the risk of employees developing depression.

Some individuals may display a bullying management style with subordinates when under pressure. A recent survey of over 5000 employees in 70 UK organizations found managers to be the perpetrators for 74.7% of employees who reported being victims of bullying⁽¹²⁾. Bullying at work has been linked

with employee ill health, including psychosomatic stress symptoms, musculoskeletal symptoms, anxiety, and depression⁽¹³⁾.

Globally, alcohol is the world's number one risk factor for ill-health and premature death amongst the 25-59 year old age group, the core of the working age population. It is unsurprising, therefore that lost productivity costs feature as the dominant element in social costs studies arising from the harm done by alcohol (contributing to one half or more of the total social costs). Becoming unemployed worsens alcohol-related harm, and heavy drinking, itself, leads to unemployment. Alcohol is a significant risk factor for absenteeism and presenteeism at work, largely in a dose response manner, with a relationship between societal and individual level of alcohol consumption and sickness absence. Although some studies have reported a positive impact of alcohol consumption on earnings, a proxy measure of productivity, a meta-analysis of relevant studies suggested that the relationship was an artefact. Often forgotten is the impact of drinkers on the productivity of people other than the drinker. It is found that this to be comparable in cost size as the lost productivity costs of the drinkers themselves. The work place itself also impacts on alcohol related harm. Certain occupations (in particular bar staff and sea workers) are at particular risk, and, in general, stressful working environments increase the risk of alcohol-related harm⁽¹⁴⁾.

In an extensive review of literature, they have reported that data, provided by various sources, clearly indicate that alcohol can cause problems in the workplace. It can create unsafe situation leading to accidents, and it can cause absenteeism, health risks and loss of productivity and profitability⁽¹⁵⁾.

Research investigating the impact of flexible work hours has found advantages and disadvantages to its implementation^(16, 17).

Major advantages claimed include lower stress levels, increased job enrichment, morale and autonomy, reduced absenteeism and tardiness, and improved job satisfaction and productivity. The major disadvantages identified include increased costs, problems with scheduling and work co-ordination, difficulties in supervising all employees due to differing work hours, and changes in the organizational culture. Flexible hours appear to have a positive impact on work-family balance and employee stress⁽¹⁸⁾, although these findings may be attributable to a reduction in work hours rather than alternative methods of work scheduling⁽¹⁹⁾. There is little evidence to suggest that overall job satisfaction differs between employees working flexible systems and those with a more traditional schedule. However, flexible work hours do appear to increase satisfaction with the work environment and the work schedule itself⁽²⁰⁾.

Researchers have found that the trend for restructuring and downsizing in many organizations has led to an increase in perceived job insecurity for workers⁽²¹⁾. For example, it is found that over (60%) of a national sample of (5000) British managers had undergone a major restructuring during the previous (12) months involving downsizing and outsourcing. The consequences of this change, even among an occupational group (middle and senior managers) supposedly in control of events, were that nearly two out of three experienced increased job insecurity, lowered morale, and an erosion in motivation and loyalty⁽²²⁾.

The concept of perceived autonomy or control has been extensively investigated in research. 'Perceived control' concerns the amount of control that an individual believes they have over their environment, whether direct or indirect, to make it less threatening or more rewarding⁽²³⁾. A great deal of evidence from human research indicates that the presence or absence of control has

profound effects on health and well-being^(24, 25).

Part II: Discussion of the productivity level

Data analysis for such level reveal that the vast majority of the workers has unfortunately experienced moderate (60.2%) and low (38.8%) levels of productivity as a result of the influence of its indicators (Table 3).

The negative impact of the productivity indicator has been confirmed by the significant relative sufficiency of (50) and greater on items that represent these indicators which include items 1, 2, 3, 4, 5, 10, 11, 12 and 18 (Table 4).

Part III: Discussion of the relationship between psychological work environment and productivity indicators

Analysis such relationship indicates that the psychological environment's indicators of stress, work hours, violence and extra level are found to have significant impact upon the workers' productivity (Table 5).

These indicators have negative relationship with the workers' productivity, the higher the level of stress, the greater the number of working hours, the greater the amount of violence and the overtime working hours may create psychologically and unsafe work environment which definitely reduce the extent of productivity.

The quality of the employee's workplace environment has been discussed that most impacts on the level of employee's motivation and subsequent performance. So, the purpose of this study is to examine the relationship between personality, work environment preferences, and the outcome variables, performance and commitment. The findings of the study reveal that the employee's workplace environment has great impact upon their level of motivation and performance⁽²⁶⁾.

A study is carried out to analyze the impact of work environment on future worker's productivity. The respondents were

randomly chosen from four selected oil and gas industry in Lagos metropolis. Such investigation reveals that factors in both the external and internal work environment, as well as employment policies as they currently obtain are unfavorable to the enhancement of labor productivity. It is therefore imperative for governments to explore ways of improving and updating infrastructural facilities in order to make work environment more conducive for enhancement of labor productivity. Similarly, job and organizationally related factors and employment policies must be looked into by the respective employers for possible reviews so as to make them more favorable and thereby challenge workers to be more productive. The results also indicate that employee productivity problems are within the work environment. Conducive work environment stimulates creativity of workers. Improvement in work environment and bad working conditions contribute to low productivity of employees⁽²⁷⁾.

A study is conducted to test the main and interactive effects of the key dimensions of the demand—control-support model in predicting levels of strain (specifically emotional exhaustion, depersonalized on and job dissatisfaction) and feelings of productivity and competency (personal accomplishment) in a multi-occupational sample of human service workers. Participants are employees of a public sector welfare agency: social workers (N= 244), psychologists (N=7), youth workers (N= 140), community support workers (N=71), financial counselors (N= 42), administrative staff (N= 156), project staff (N= 54), and managers (N= 46). Support is found for the additive active learning hypotheses: jobs combining high demands and high control produced the highest levels of personal accomplishment. The study supports job redesign interventions for improving worker well-being and productivity. The major implication from this study is that a reduction in levels of strain and an increase in

productivity could be achieved with job redesign not necessarily by decreasing work demands, but by increasing the levels of control and support⁽²⁸⁾.

Recommendations:

The study recommends that Occupational oriented health education program with emphasis on psychological work environment, and its impact upon workers' productivity can be constructed and implemented for workers on a wide-range scale. Further research can be conducted on large sample size and nationwide.

References:

1. Kohun, S. **Business Environment**. Ibadan: University Press, 1992.
2. Kahn L. and Byosiene, P.: Stress in organizations. In: Dun, M.: **Handbook of Industrial and Organizational Psychology**. Chicago: Rand-McNally, 1991.
3. Sauter, L. and Murphy, R.: **Organizational Risk Factors for Job Stress**. Washington, DC: American Psychologists Association, 1995.
4. Johnson, V. and Johansson, G.: **The psychosocial work environment: Work organization, democratization and health**. Amityville, NY: Baywood, 1991.
5. Johnson, V. and Hall, M.: Dialectic between conceptual and causal inquiry in psychosocial work environment research. **Journal of Occupational Health Psychology**, 1, 1996, p.p. 362–374.
6. Kasl, S.: Measuring job stressors and studying the health impact of the work environment: An epidemiological commentary. **Journal of Occupational Health Psychology**, 3, 1998, p.p. 390–401.
7. Karasek, A. and Theorell, T.: **Healthy work: Stress, productivity and the reconstruction of working life**. New York: Basic Books. 1990, p. 276.
8. Ganster, C. and Schaubroeck, J.: Work stress and employee health. **Journal of Management**, 17, 1991, p.p. 235-271.

9. Soltani, I.: Human resource productivity (in Persian). Tehran: Arkan, 2007.
10. Lahtinen, M.; Sundman-Digert, C. and Reijula, K.: **Psychosocial work environment and indoor air problems: a questionnaire as a means of problem diagnosis**, Uusimaa Regional Institute of Occupational Health, Helsinki, Finland, 2003.
11. Stoetzer, U.: **Interpersonal Relationships at Work: Organization, Working Conditions and Health**. Published Master Thesis, Karolinska Institute, Stockholm, Sweden, 2010.
12. Hoel, H. and Cooper, L.: **Destructive conflict and bullying at work**. Manchester School of Management, UMIST. Unpublished report.2000.
13. Hoel, H.; Rayner, C. and Cooper, L. (1999). Workplace bullying. In Cooper, L. and Robertson, T. (Eds.), **International review of industrial and organizational psychology** (Vol. 14). Chichester, UK: Wiley, 1999.
14. Gilmore, I.: **Alcohol, Work and Productivity: Scientific Opinion of the Science Group of the European Alcohol and Health Forum**, 2006, p.p. 1-72.
15. Lenarczyk, K. and Buning, E.: **Alcohol and the workplace in the European Union: An exploration**, The Amsterdam Group, Holland, 2005, p.p. 1-44.
16. Christensen, E. and Staines, L.: **Flexitime. A viable solution to work/family conflict?** Journal of Family Issues, 4, 1990, p.p. 455–477.
17. Pierce, L. and Newstrom, W.: **The design of flexible work schedules and employee responses: Relations and process**. Journal of Occupational Behavior, 4, 1983, p.p. 247–262.
18. Dunham, B.; Pierce, L. and Castaneda, B.: **Alternative work schedules: Two field quasi-experiments**. Personnel Psychology, 40, 1987, p.p. 215–242.
19. Gottlieb, H.; Kelloway, K. and Barham, E.: **Flexible work arrangements: Managing the work–family boundary**. Chichester, UK: Wiley, 1998.
20. McGuire, B. and Liro, R.: **Absenteeism and flexible work schedules**. Public Personnel Management, 16, 1987, p.p. 47–59.
21. Pahl, R.: **Rigid flexibilities? Work between men and women**. Work Employment and Society, 7, 1993, p.p. 636–642.
22. Worrall, L. and Cooper, L.: **Quality of working life 1998 survey of managers' changing experiences**. London: Institute of Management, 1998.
23. Worrall, L. and Cooper, L.: **Quality of working life 1998 survey of managers' changing experiences**. London: Institute of Management, 1998.
24. Averill, R.: **Personal control over aversive stimuli and its relationship to stress**. Psychological Bulletin, 80, 1973, p.p. 286–303.
25. Miller, M.: **Controllability and human stress: Method, evidence and theory**. Behavior Research and Therapy, 17, 1979, p.p. 287–304.
26. Ganster, C.; Schaubroeck, J.; Sime, E. and Mayes, T.: **Unhealthy leader dispositions, work group strain and performance. Best papers**. Proceedings of the Academy of Management, 1990, p.p. 191–195.
27. Al-Anzi, N.: **Workplace Environment and Its Impact on Employee Performance**, Unpublished Master Thesis, Open University of Malaysia, 2009, p.p. 1-62.
28. Taiwo, S.: **The influence of work environment on workers' productivity: A case of selected oil and gas industry in Lagos, Nigeria**, African Journal of Business Management, 4 (3), 2010, pp.299-307.
27. Dollard, M.; Winefield, H.; Winefield, A. and Jonge, J.: **Psychosocial job strain and productivity in human service workers: A test of the demand-control-support model**, Journal of Occupational and Organizational Psychology, 73, 2000, p.p. 501-510.

