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# Job Stress among Iranian Prison Employees

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## Abstract

**Background:** Exposure to job stress causes deleterious effects on physical and mental health of employees and productivity of organizations.

**Objective:** To study work-related stressors among employees of prisons of Ilam, western Iran.

**Methods:** In a cross-sectional study conducted from July to October 2013, 177 employees of Ilam prisons and security-corrective measures organization were enrolled in this study. The UK Health and Safety Executive Organization 35-item questionnaire for assessment of occupational stress was used to determine job stress among the studied employees.

**Results:** Job stress was highest among employees of "correction and rehabilitation center" of Ilam province followed by "Dalab vocational training center." There was no significant relationship between occupational stress and age, work experience, level of education, marital status, sex of employees, and obesity.

**Conclusion:** Employees of prisons, for their nature of job and work environment, are exposed to high level of occupational stress.

**Keywords:** Work; Prisons; Criminology; Workplace; Stress, psychological; Burnout, professional; Age factors; Sex factors; Iran

## Introduction

Prison is one of the important parts of the criminal justice system, where its work condition makes its workers encounter various types of stress. Those include closed forced work environment, need to act violence and doing difficult duties, duties relating to safety and discipline maintenance and law enforcement in prison, working for a long time, irregular work shift and high incidence of certain diseases among prisoners that would harm prison employees' health.<sup>1-3</sup>

There are 217 000 prisoners who have committed different crimes in Iran and are maintained in 249 centers,<sup>4</sup> It is danger-

ous and often stressful to work in such environments.<sup>5</sup> Prison employees face many mental and physical health problems due to their workplace condition. Occupational stress and work environment stressors are realities in security organizations like prisons, with detrimental consequences for the organization<sup>6</sup> and its employees. Examples of health problems commonly reported in prison staff members include mental health problems<sup>7,8</sup> and physical health issues,<sup>9,10</sup> particularly, emotional and behavioral disorders such as depression,<sup>11-13</sup> anxiety,<sup>14,15</sup> sleep disturbances,<sup>16</sup> burnout,<sup>17,18</sup> alcohol abuse,<sup>19,20</sup> early retirement,<sup>21</sup> and coronary artery diseases<sup>22,23</sup>.

In addition to its psychological and

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physical effects, occupational stress can also cause organizational problems such as job dissatisfaction,<sup>24-26</sup> job turnover,<sup>27</sup> high rate of absenteeism,<sup>28,29</sup> increased job events,<sup>30-32</sup> decreased job performance<sup>25,33</sup> and organizational commitment<sup>34,35</sup>.

Many studies have so far been conducted on mental health and job stress among prison staff. Tewksbury and Higgins showed that job stress generally is resulted from organizational problems such as role conflict, emotional abnormality and job control, and that contrary to popular belief, the percentage of one's work time spent in contact with inmates reduces the experience of work stress.<sup>6</sup> Previous studies showed that job stress among prison employees is high, more than that found among military employees, however, the nature of stress is different depending on the job category among prison employees.<sup>36,37</sup>

To improve the work environment, better understanding of the nature of the job stress of prison employees<sup>38,39</sup> is necessary. We therefore conducted this study to determine the level of occupational stress, its relation with organizational and individual variables, and the factors that would cause job stress among prison employees in Iran.

## Materials and Methods

This cross-sectional study was conducted between July and October 2013 in *Ilam*, western Iran. All employees of *Ilam* prisons and security-corrective measures organization were enrolled in this study.

There are four prisons in *Ilam* province—the central prison of *Ilam*, *Dalab* vocational training center, prison of *Darrehshahr*, and correction and rehabilitation center. Only those employees whose job necessitates direct contact with prisoners were included in the study. These include five job groups—health care workers, protection unit employees, social workers,

office workers, and correctional officers. Only those who had at least one year of work experience in the prison where they worked in, those who had general health, and those who accepted to complete job stress questionnaire were included in the study. The exclusion criteria included unwillingness to cooperate, incorrect completion of the job stress questionnaire subscales, and having interfering mental or physical disorders such as depression and mental disorders, cardiovascular problems, and hematological and sever musculoskeletal diseases. After applying the inclusion/exclusion criteria, 177 employees left and included in the final analysis.

## Measurement of Work-related Stressors

The UK Health and Safety Executive (HSE) Organization has designed a 35-item questionnaire to determine stressors defined in management standards for occupational stress in seven areas.<sup>21,40</sup> The domains are based on the following subjects:

- 1) Demand (8 questions, maximum score: 35): the types of demands made on workers in areas such as workload, working patterns and working environment;
- 2) Control over work (6 questions, maximum score: 30): determines the extent to which individual performs his/her own duties properly;
- 3a) Support from management (5 questions, maximum score: 25): shows support received by individual including that from managers and the organization in general;
- 3b) Support from colleagues (4 questions, maximum score: 20);
- 4) Relationship at work (4 questions, maximum score: 20): presents collective connections and prevents dispute and struggle at workplace;
- 5) Role or responsibility (5 questions, maximum score: 25): presents understanding an individual role within the organization;
- and 6) Changes, organizing method and human resources of an organization (3 questions, maximum score: 15). It is necessary to mention that in some

For more information on reliability and validity of Persian version of job content questionnaire in Iran see [www.theijoem.com/ijoem/index.php/ijoem/article/view/144](http://www.theijoem.com/ijoem/index.php/ijoem/article/view/144)



**Table 1:** Demographic characteristics of the Subjects

Variables	Central prison of Ilam	Dalab vocational training center	Prison of Darrehshahr	Correction and rehabilitation center	Total
Age (yrs)	31.2 (4.8)	34.0 (6.8)	31.8 (5.5)	34.3 (7.9)	32.3 (5.9)
Body Weight (kg)	77.39 (8.44)	79.45 (10.21)	81.31 (8.96)	77.14 (11.66)	78.35 (9.33)
Height (cm)	176.1 (7.5)	177.6 (5.4)	180.6 (5.4)	176.9 (4.8)	177.0 (6.6)
BMI (kg/m <sup>2</sup> )	25.0 (1.2)	25.2 (2.9)	25.0 (2.5)	24.6 (3.1)	25.0 (2.4)
Experience (yrs)	6.7 (4.4)	9.7 (6.8)	7.2 (5.4)	9.6 (6.7)	7.8 (5.6)
Working hours per week	59.6 (12.8)	50.7 (7.8)	61.3 (17.4)	58.2 (17.7)	57.6 (13.3)
Overtime per month	97.5 (47.2)	83.3 (65.1)	62.5 (55.6)	12.5 (3.5)	88.9 (50.9)

**TAKE-HOME MESSAGE**

- Prisoner employees face many mental and physical health problems due to their workplace condition.
- Prison employees who are in close contact with prisoners who committed different crimes, are at risk of developing job stress.
- Exposure to job stress causes deleterious effects on physical and mental health of prison employees and productivity of organizations.
- Doing difficult duties, law enforcement in prison, working for a long time, irregular work shift, and high incidence of certain diseases among prisoners, could threaten the prison employees' health.
- Health care workers who deal with health status of prisoners and being in close contact with some of the prisoners had the highest job stress.
- Occupational stress can cause organizational problems such as job dissatisfaction, job turnover, high rate of absenteeism, increased job events, decreased job performance and organizational commitment.
- Job stress among prison staff members are more than that found among military employees.

studies two areas of “support from management” and “support from colleagues” are combined and the questionnaire has six areas.<sup>41</sup> The response to questions included a five-level Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree). Higher scores reflected more health and safety regarding stress while lower scores showed more stress among the study participants. To obtain an optimum response rate, we considered a response rate of >50%, >60%, >70% and >80% as “enough,” “optimum,” “good,” and “excellent,” respectively.<sup>21,42</sup>

Validity and reliability of HSE job stress questionnaire in Iran has been assessed by Marzabadi, *et al.*<sup>43</sup> All participants were asked to complete the questionnaire. Demographic data were also collected for each worker. Statistical analyses were done using SPSS® for Windows® ver 20. A p value <0.05 was considered statistically significant.

**Results**

Demographic characteristics of the employees are presented in Table 1. Tables 2 and 3 present the mean values of the seven

**Table 2:** Means of job stress and its affecting factors based on type of prison

Prison	Demand	Control	Management support	Colleagues support	Relationships at work	Role	Change	Job stress
Central prison of <i>Ilam</i>	23.11	17.96	14.55	11.05	12.47	10.72	8.87	98.73
<i>Dalab</i> vocational training	23.46	18.53	14.63	9.87	12.43	8.63	8.39	95.90
Center prison of <i>Darrehshahr</i>	22.52	20.44	16.04	9.84	13.08	8.28	8.92	99.12
Correction and rehabilitation center	21.42	17.14	13.14	9.04	10.14	7.95	7.61	86.44
<b>Total</b>	<b>22.90</b>	<b>18.35</b>	<b>14.61</b>	<b>10.37</b>	<b>12.27</b>	<b>9.56</b>	<b>8.62</b>	<b>96.68</b>

subscales of job stress and the final score for each prison and job position. The highest job stress was recorded from prison of *Darrehshahr* among health care workers; the lowest stress was also recorded for prison of *Darrehshahr* among correctional officers.

Multivariate linear regression analysis revealed that among the seven subscales of job stress, “control over work” had a significant correlation with the type of job ( $p=0.002$ ) and prison ( $p=0.019$ ). Also “support from colleagues” had a significant ( $p=0.041$ ) correlation with gender of the employee. “Relationship at work” subscale had significant relationship with sex of employees ( $p=0.026$ ) and type of prison

( $p=0.008$ ). The subscale “role” had significant relationship with age of employees ( $p=0.008$ ), body mass index (BMI) ( $p=0.048$ ), and their job ( $p=0.032$ ). Other studied subscales of job stress had no significant correlation with the demographic characteristics considered in this study. No significant correlation between the individual qualitative and quantitative variables and HSE occupational stress were observed.

### Discussion

Prison employees experience various job stressors because of the nature of their job in managing and controlling prisoners. We

**Table 3:** Means of job stress and its affecting factors based on type of job

Job groups	Demand	Control	Management support	Colleagues support	Relationships at work	Role	Change	Job stress
Protection unit	22.93	18.81	15.04	9.92	11.63	9.57	8.46	96.36
Health care	23.12	15.50	14.12	9.87	12.12	7.10	6.75	88.58
Social work	25.33	19.00	15.00	8.66	14.00	8.33	8.33	98.65
Office	22.56	17.84	15.60	11.04	12.04	8.92	9.24	97.24
Correctional officer	23.68	20.68	15.68	9.68	14.12	6.87	9.18	99.89
<b>Total</b>	<b>22.97</b>	<b>18.63</b>	<b>14.95</b>	<b>10.26</b>	<b>12.56</b>	<b>9.24</b>	<b>8.64</b>	<b>97.25</b>

found that job stress was highest among employees of “correction and rehabilitation center” of *Ilam* province followed by “*Dalab* vocational training center.” In the former center, the prisoners are 18 years old or younger. In the latter center, addicts are maintained. In “central prison of *Ilam*” and “prison of *Darrehshahr*,” where job stress was lower, prisoners with public crimes are maintained; prisoners in “prison of *Darrehshahr*” committed unserious crimes than prisoners detained in other prisons, and thus, job stress was lower among its employees.

Characteristics of each job must be taken into account in assessment of job stress.<sup>44</sup> Some studies showed that certain work environments could induce more stress than others and that prison is one of such workplaces.<sup>45-46</sup> The four prisons studied hold prisoners for different types of crimes; the numbers of prisoners and prison employees are also different. No surprise, we expect different work environment and level of job stress.

Before beginning of the current study, because there were more prisoners with serious crimes such as homicide, villainy, rape, *etc.*, in “central prison of *Ilam*,” and load of prisoners there was more than other prisons, we expected to see the highest job stress in that prison. However, we came to different results. That might reflect the effect of different work environment of prisons on job stress.

Health care workers had the highest job stress. These employees deal with health status of prisoners and being in close contact with some of the prisoners, they carry a higher risk of contracting diseases, especially HIV and hepatitis more than other occupations.<sup>47-49</sup> Furthermore, because of the psychological pressures and the environment of prison the risk of suicide in prisoners is high.<sup>50</sup> Taking care of these people is thus, stressful. In a study conducted on nurses working in prison, it was

found that the nurses experienced a high level of job stress and that their occupational satisfaction was inversely correlated with their occupational stress.<sup>51</sup>

Followed by health care workers, the employees of protection unit had also a high level of job stress. Their job includes responsibilities such as dispatching and escorting prisoners, law enforcement and enforcing discipline, preventing prison riots and escapes, *etc.* In terms of the reported stress, office and staff members of social work and correctional officers placed next. Correctional officers had the least stress; their duty is to watch different sections of prison and maintain the security and discipline inside sections. Our findings were in agreement with results of other studies that showed different environmental conditions and jobs affects the level of job stress.<sup>44</sup>

Employees of the correction and rehabilitation center had the least amount of stressors in each seven areas of work-related stressors compared to employees of other prisons. They reported less occupational needs including less perception of work load, work pattern and work environment. They also had less control on their job, and received less support from the managers and colleagues. In addition, relationships in work environment, correct understanding of the role of employees in this prison and also understanding of the management method and communication of organizational changes among the employees were less than those observed in other prisons. It seems that the seven areas of work-related stressors were not sufficiently managed in this center. Existence of these stressors in the work environment develops inappropriate health condition, low work efficiency and increased absenteeism.<sup>21</sup>

Unlike all studies that reported significant relationship between occupational stress with age,<sup>52</sup> work experience,<sup>53</sup> level

of education,<sup>54</sup> marital status,<sup>55</sup> sex of employees,<sup>56</sup> and obesity,<sup>57, 58</sup> none of these variables had significant correlation with the occupational stress in our study.

Prisons in different countries are different in terms of their facilities, employees and prisoners' race, feeding habit, well-being, mental health, *etc.* Most of the studies conducted on job stress among prison employees have been conducted in developed countries, where type of crime, organizational structure, and procedures for their guards are different from those in developing countries. For lack of detailed knowledge on job stress among prison employees in developing countries and for marked cultural and organizational differences among the prison staff members and prisoners, further studies are needed to further clarify this issue.

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**Conflicts of Interest:** None declared.

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