

# 1 The Relationship Between Hospital Occupational Stress and Prevalence of 2 Depression in Nurses Working in Ilam Hospitals

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## 5 Abstract

6 **Introduction:** Stress and depression are common problems among hospital staff. Depression  
7 is a common disorder that may affect anyone, but some people in the community, such as  
8 those in different disciplines of science, each of which are involved in maintaining the  
9 physical and mental health of the community, due to the specific situation of the disorder are  
10 more vulnerable. Long-term stress can also lead to mental disorders such as anxiety,  
11 depression and physical burnout. The aim of this study was to determine the relationship  
12 between hospital occupational stress and prevalence of depression among nurses working in  
13 Ilam hospitals.

14 **Methods:** This is a descriptive-analytic study. The statistical population includes the staff of  
15 Imam Khomeini Hospital and martyr Mostafa Khomeini Hospital in Ilam. The study was  
16 conducted using a census method. The criteria for entering the individuals were their  
17 willingness to participate in this study. The subjects were included in the study with complete  
18 satisfaction. Demographic questionnaires, standard questionnaires for occupational stress  
19 (HSI), and Beck Depression Inventory were used. Questionnaires were distributed to pre-  
20 trained individuals. The data was extracted and analyzed by SPSS software.

21 **Results:** The findings of this study showed that 31.8% of the samples had a degree of  
22 depression. In this study, the rate of depression in men is higher than that of women.  
23 According to the results, occupational stress and environmental stress in nursing women were  
24 more than men. There is a significant relationship between job stress and stress associated  
25 with life with depression ( $p = 0.001$ ,  $p = 0.004$ , respectively)..

26 **Conclusion:** The results of this study always emphasize the point that attention should be  
27 paid to stress and stressful occupation of nursing and to think about it and to take preventive  
28 measures. Because of the stress of the valve towards all mental illnesses In the event of  
29 manpower and the work of a community, it can cause many problems and costs for the  
30 individual and society and reduce the quality of the services provided by the nurses.

31 **Keywords:** Depression, Job stress, Nurses

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## 34 Introduction:

35 Stress and depression are common problems among hospital staff. Depression is a common  
36 disorder that may affect anyone, but some people in the community, such as those in different  
37 disciplines of science, each of which are involved in maintaining the physical and mental  
38 health of the community, due to the specific situation of the disorder are more vulnerable (1).

39 Medical affiliates are responsible for providing comfort, comfort and treatment for patients  
40 under the influence of seizure factors. The work environment of hospitals creates a lot of  
41 stress that can lead to anxiety in health care workers (2). By identifying the most important  
42 stressors among medical staff, the need to review and modify management structures and  
43 reduce individual stressors and care providers by their respective authorities, can reduce

44 mental stress and promote general health and as a result, reducing the burnout of nurses (1).

45 Stress is a very complicated phenomenon that sometimes becomes problematic, and if a  
46 person is unable to adapt to it, his body and mind are threatened (3). Stress factors cause  
47 damage to the form of basic needs and incite intervention in human development and  
48 eliminate balance of the person. The response of individuals to stressors firstly depends on  
49 the characteristics of the second stimulus to the individual characteristics of the demographic  
50 factors and the cultural and social context and, thirdly, to the previous experiences of the  
51 individual. If symptoms do not respond correctly, symptoms such as fatigue, irritability,  
52 distraction and feelings of guilt and gastrointestinal and physical pains occur (4, 5). Similarly,  
53 major depression leads to significant disability in individual and social life and employment,  
54 and affects everyday functions of a person such as sleep, eating and health of an individual  
55 (6). A person from a moment of awakening until relaxation at the evening is always subject  
56 to stresses, emotions, anxieties, fears and hopes that sometimes fit and sometimes is not  
57 compatible with his physical, psychic and mental capacity. , On the other hand, about 45% of  
58 the world's population and 58% of people over the age of 10 are among the world's  
59 workforce, and many of these people account for more than a third of their post-puberty life  
60 in work environments where there are a variety of stressors The fords are going through.  
61 Therefore, providing mental health and reducing stress and identifying stressors in these  
62 individuals is very important.

63 On the other hand, long-term stress can lead to mental disorders such as anxiety, depression  
64 and physical burnout, which naturally leads to loss of efficiency. In this regard, nursing staff  
65 are facing high stress that can result in complications such as cardiac, digestive,  
66 psychological, immunological impairment, etc., which can lead to a decrease in work  
67 capacity, absenteeism from work or family problems (7). Keeping calm and giving them the  
68 opportunity to take effective strategies to reduce stress. To reduce depression, methods such  
69 as eating seafood, taking vegetables and potatoes, meat, yogurt, and doing things of interest  
70 and exercise all contribute to depression (8). In determining the relationship between stress  
71 and demographic variables, stress with age and history has a reverse relationship with the age  
72 and history, with the increase in age and history of stress (9).

73 In another study on nurses, it was found that 44.1% of the studied samples had high stress,  
74 54.1% had moderate stress and 1.8% had low stress. There was a statistically significant  
75 relationship between the degree of occupational stress and the type of hospital, so there was a  
76 higher stress level in the teaching hospital than non-teaching hospital and there was also a  
77 significant relationship between work history and stress (9). Somewhere else, at each time  
78 point, 20-15% of adults have signs of depression and at least 12% of those who go to  
79 treatment are depressed. It is estimated that about 75% of admissions to mental hospitals are  
80 depressed (10). There was no significant difference in the amount of depression in nurses  
81 from the psychiatric and non-psychiatric departments and the administrative staff group, but  
82 in terms of the level of work stress, the results showed that the nurses' group compared to the  
83 staff group The office section experiences high stress (10).

84 Also, according to the research of hospital personnel, there is a significant difference in the  
85 relationship between personal life at three levels of satisfaction. Considering the shift in the  
86 work of hospital personnel, the need to provide night shift services may interfere with  
87 emotional communication (11). ) Therefore, attention should be paid to the emotional and  
88 psychological state of employees with regard to work shifts. In today's world, people spend  
89 most of their social life in work and work environments, and since work is an important and  
90 meaningful aspect of every human's life, it seems that attention to Occupational stress and  
91 other psychological problems are essential. The occupational environment always affects the

92 individual, in other words, the characteristics of the job and personal characteristics are  
93 constantly interactive and dynamic. In addition, work-related stress for both the individual  
94 and the organization causes considerable losses. According to an approximate estimate of  
95 work-related problems, the US economy loses 75-90 billion dollars annually (12). Our aim is  
96 to determine the relationship between hospital occupational stress and the prevalence of  
97 depression in nurses working in Ilam hospitals. Since job stress is one of the most important  
98 occupational hazards of the present age, it can lead to absenteeism and reduction The  
99 production and the transfer of strength and work conflicts are important, considering its  
100 causes and the relationship that is associated with work-related depression in a particular  
101 environment. It is hoped that providing information about depression and occupational stress  
102 can provide solutions to deal with them and reduce their harmful effects, as well as reduce the  
103 health and treatment costs of employees to treat stress and depression.

#### 104 **Method:**

105 This study is descriptive-analytic. The statistical population includes the staff of Imam  
106 Khomeini Hospital and martyr Mostafa Khomeini Hospital in Ilam. The study was conducted  
107 using a census method. At first, a questionnaire was prepared, then the staff of Imam  
108 Khomeini hospitals and martyr Mostafa Khomeini, who had the criteria for entering the  
109 study, were selected. The subjects were asked for explanations regarding the study and how  
110 they were performed. Some employees did not want to participate in the study, which did not  
111 enter the study. The subjects completed the study with complete satisfaction. The first part of  
112 the demographic questionnaire includes age, sex, height, weight, marital status, number of  
113 family members, degree, job position, number of hours, type of employment, duration of  
114 work experience, economic status, history of illness. The next section is the HSI Standard of  
115 Work Stress Questionnaire and Beck Depression Inventory. Questionnaires were distributed  
116 among people who had already been trained. The data was extracted and analyzed by SPSS  
117 software. The required explanations regarding the research goals were provided by the  
118 trained questioners to the staff before filling out the questionnaire and stated that they would  
119 not be obliged to fill in the questionnaires. The questionnaire is also anonymous and the  
120 person's particular information cannot be extracted. The information collected after filling  
121 was collected by the interviewers and packed in a sealed form, and was handed over to the  
122 executive responsible for the delivery of the design and was kept in a precise and secure  
123 place.

#### 124 **Results:**

125 In this study, 110 nurses with a mean age of  $30.26 \pm 8.25$  years with a work experience of  
126  $1.19 \pm 0.39$  years and a daily and monthly work rate of  $55.5 \pm 64.22$ , 201 hours and the  
127 average night shift was  $5.28 \pm 3.84$ . (Table 1)

128 In this study, 62.7% were female and 37.3% were men and 57.3% were married and 92% had  
129 more than 5 family members. In each department of women, emergency, pediatrics and  
130 dental care, 4.6% of nurses were employed, 49.1% were nurses in the surgical department,  
131 4.5% in the special department and 20.9% in other sectors. They were working. Other  
132 demographic information is listed in Table 2.

133 8.1% of depression nurses were dangerous, and 4.5% had severe depression and 14.5% had  
134 moderate depression. Most of the nurses had depression in different severity and there was no  
135 significant relationship between depression and gender. ( $p = 0.3$ )

136 According to the results, nurses with a degree in diploma and doctor did not have any  
137 depression and nurses with a master's degree had only 10% had mild depression. Also, nurses  
138 with bachelor's degree (59.7%) had no depression, 13.9% had depression Mild and 16.7%

139 had moderate depression, 6.9% had severe depression and 2.8% had a severe depression. And  
140 5.9% and 23.5% had mild to moderate depression, respectively. However, There was no  
141 significant relationship between depression and educational degree ( $p = 0.56$ ).

142 Nurses in the women's, emergency, pediatric, special, and domestic sectors did not have  
143 severe depression, and only those in the surgical ward had a severe depression of 1.9%. There  
144 was no significant relationship between depression and type of nurses ( $p = 0.78$ ).

145 Also, there was no significant relationship between depression and marital status and type of  
146 employment ( $p = 0.16$ ,  $p = 0.18$ , respectively). Thus, married people and single people were  
147 76.2% and 57.4% without depression, and only in single subjects (4.3%) severe depression  
148 was seen.

149 The lowest mild depression (7.5%) included formal nurses, and formal and contractual nurses  
150 had no severe depression.

151 There was a significant relationship between occupational stress and sex ( $p < 0.001$ ). Job  
152 stress was more frequent in women (69%), but in this study, women were more likely to have  
153 low job stress and men with moderate occupational stress.

154 There was no significant relationship between job stress and age ( $p = 0.67$ ), duration of work  
155 experience ( $p = 0.66$ ), daily work hours ( $p = 0.07$ ), morning shift ( $p = 0.073$ ). However, there  
156 was a significant relationship between job stress and working hours ( $p = 0.007$ ), so that those  
157 with a working hours of  $192.42 \pm 60.002$  months had a low occupational stress and those who  
158 had  $231.66 \pm 231$  hours of work per month had a moderate occupational stress.

159 Also, there was a significant relationship between job stress and academic achievement ( $p =$   
160  $0.002$ ). Persons with high degree of occupational stress had high job stress and those with  
161 PhD degrees had low job stress.

162 81% of married people had low job stress and 29.8% of single individuals had moderate  
163 occupational stress, however, there was no statistically significant relationship between job  
164 stress and marital status ( $p = 0.19$ ). In the emergency ward of the hospital, 57.1% of the  
165 nurses had moderate occupational stress. In the pediatric sector, 85.7% of the cases were low  
166 in occupational stress, and in occupational and nursing sectors, nurses were not moderately  
167 job stressed and had only a small range of occupational stress. Therefore, there was no  
168 statistically significant relationship between job stress and section type ( $p = 0.08$ )

169 Also, there was no significant relationship between job stress and nurses' employment ( $p =$   
170  $0.85$ ). So that formal nurses were less likely to have job stress and contract and service nurses  
171 had a moderate degree of occupational stress.

172 The study showed that there is a significant relationship between job stress and stress  
173 associated with life with depression ( $p = 0.001$ ,  $p = 0.004$ , respectively).

174 **Table 1. Mean and standard deviation of the quantitative variables studied in Ilam**  
175 **nurses**

| Variable                  | Number | Mean  | Standard deviation |
|---------------------------|--------|-------|--------------------|
| Age                       | 110    | 62/30 | 8/25               |
| work experience           | 110    | 19/1  | 0/394              |
| Length of work experience | 110    | 26/7  | 8/05               |
| Daily work                | 110    | 64/8  | 2/82               |

|                       |     |        |       |
|-----------------------|-----|--------|-------|
| hours                 |     |        |       |
| Monthly working hours | 110 | 55/201 | 64/12 |
| Night shift           | 110 | 28/5   | 3/84  |

176 Table 2. Frequency distribution of demographic characteristics of nurses and its  
177 relationship with depression and occupational stress

| Variable               |                       | Frequency | percent | Relationship to depression | Relationship to occupational stress |
|------------------------|-----------------------|-----------|---------|----------------------------|-------------------------------------|
| Gender                 | Male                  | 41        | 37/3    | 0/3                        | P<0/001                             |
|                        | Female                | 69        | 62/7    |                            |                                     |
| marital status         | Married               | 63        | 57/3    | 0/18                       | 0/19                                |
|                        | Single                | 47        | 42/7    |                            |                                     |
| Family members         | <5                    | 92        | 83/6    |                            |                                     |
|                        | >5                    | 18        | 16/4    |                            |                                     |
| degree of education    | Diploma               | 6         | 5/5     | 0/56                       | 0/002                               |
|                        | Associate             | 17        | 15/5    |                            |                                     |
|                        | Degree                | 72        | 65/5    |                            |                                     |
|                        | Expert                | 10        | 9/1     |                            |                                     |
|                        | Senior                | 5         | 4/5     |                            |                                     |
|                        | Doctorate             |           |         |                            |                                     |
| The economic situation | Low satisfaction      | 11        | 10      | 0/11                       | 0/41                                |
|                        | Relative satisfaction | 81        | 73/6    |                            |                                     |
|                        | Dissatisfied          | 18        | 16/4    |                            |                                     |
| Employment status      | Official              | 40        | 36/4    | 0/16                       | 0/85                                |
|                        | Contractual           | 14        | 12/7    |                            |                                     |
|                        | A pledge              | 35        | 31/8    |                            |                                     |
|                        | service               | 21        | 19/1    |                            |                                     |
| Ward                   | Surgery               | 54        | 49/1    | 0/78                       | 0/08                                |
|                        | Women                 | 7         | 6/4     |                            |                                     |
|                        | Emergency             | 7         | 6/4     |                            |                                     |
|                        | Children              | 7         | 6/4     |                            |                                     |
|                        | Intensive             | 5         | 4/5     |                            |                                     |
|                        | Internal              | 7         | 6/4     |                            |                                     |
|                        | Others                | 23        | 20/9    |                            |                                     |
| History of disease     | Yes                   | 12        | 10/9    | 0/21                       | 0/08                                |
|                        | No                    | 98        | 89/1    |                            |                                     |
| Migraine history       | Yes                   | 13        | 11/8    | 0/5                        | 0/09                                |
|                        | No                    | 97        | 88/2    |                            |                                     |
| History of drug use    | Cigarette             | 8         | 7/3     | 0/23                       | 0/8                                 |
|                        | Corticosteroids       | 1         | 0/9     |                            |                                     |
|                        | None of them          | 101       | 91/8    |                            |                                     |

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180 **Discussion and conclusion:**

181 The aim of this study was to determine the relationship between occupational stress and  
182 prevalence of depression in nurses working in hospitals in Ilam. The results of this study  
183 showed that 31.8% of the samples had a degree of depression that was consistent with the  
184 results of Sahebi (13).

185 Also, according to the results of the study, it was found that the level of depression with  
186 marital status, type of employment and daily hours of work, type of shifts, type of department  
187 and ... have no significant relationship. Which was not consistent with Amani's research  
188 results. (1)

189 According to Khani et al. (14), depression has a significant relationship with the working  
190 hours of the month, because covering a large number of hours leads to more family and more  
191 workload, so people are more susceptible to depression, but among nurses The hospitals in  
192 Ilam did not see such a relationship.

193 The findings of the present study showed that there is no significant relationship between  
194 depression, occupational stress and nurses' age, which is consistent with the results of  
195 Hebrani et al., Which is conducted on stressors in nurses (15), but with findings Molazem et  
196 al. contradict the stressors and stressors in nurses (16). In this study, there was no relationship  
197 between work-related stress and work-related overtime, which was consistent with the results  
198 of the Ghasemi study (17). While some studies have found evidence that nurses, especially  
199 Nurses in the Emergency Care and Emergency Department, etc. may show more depression  
200 than other nurses, but in the current study, at least in this research, such a claim was not  
201 approved and no statistically significant relationship was found between type of department  
202 and depression.

203 There was no significant relationship between severity of depression and education level ( $P =$   
204  $0.56$ ), which was not consistent with the results of Khajeh Nasiri (18). According to a Khajeh  
205 Nasiri study, when nurses lacking clinical information, this disrupts organizational behaviors  
206 and leads to a false sense of inadequacy, but because job stress has a direct relation to the  
207 level of nursing education. It can be concluded that the level of job stress will probably  
208 decrease with increasing levels of education and clinical information.

209 In general, according to researches, the incidence of depression in women is more than that of  
210 men, but in this study, depression in men is more than women, and this is a danger alarm for  
211 further investigation and further studies in this regard.

212 There was a meaningful statistical relationship between marital status and job stress, so that  
213 married people with low job stress and unmarried people had moderate occupational stress. In

214 this regard, social support such as family and marital relations can be associated with stress  
215 induced relationships. In non-supported environments, the level of job stress increases, and  
216 married nurses experience significant job stress lesser as they receive more support from their  
217 families.

218 There was no significant relationship between occupational and environmental stresses and  
219 type of department and type of nurses' employment. However, nurses in each department of  
220 the hospital seem to experience a mild and limited range of occupational and environmental  
221 stress. Service and contract nurses also have more job stressors that seem to require more  
222 support from the Ministry of Health and hospitals. Also, the more work hours are, the more  
223 stressful they will be due to the high workload of individuals.

224 In this study, there is no positive correlation between occupational stress and working hours,  
225 which is not consistent with the results of Willy et al. (19). A large workload is a major risk  
226 factor for mental disorders and tensions.

227 The study showed that there is a significant relationship between job stress and stress  
228 associated with life with depression ( $p = 0.001$ ,  $p = 0.004$ , respectively).

229 The findings of this study are consistent with the findings of Williams (20), which examines  
230 the relationship between stress and job satisfaction. Both in this study and in Williams'  
231 findings, emphasis is placed on stress management in nursing jobs.

232 The lack of hospital and therapeutic facilities, the need for high precision and the rotation of  
233 work time and shift work that lead the nurse out of the rhythm of society's life, and financial  
234 dissatisfaction is one of the factors leading to increased tension in nurses.

235 Regarding the stressfulness of nursing jobs, this may be due to the nature and quality of a  
236 nursing job because a nurse deals with death, life, health and improvement of human beings.  
237 Issues that are spontaneously stressful.

238 The results of this study always emphasize the point that attention should be paid to the  
239 stressful and stressful nature of the nursing occupation and to be thought about and to take  
240 preventive measures. Because stress is a gateway to all mental illnesses that can cause many  
241 problems and costs for the individual and society in the event of human resources and the  
242 work of a community, and reduce the quality of nurses' services.

#### 243 **Conflict of interest:**

244 There are no conflicts of interest in this article..

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**References:**

1. Amani F, Sohrabi B, Sadeghieh S, Mashoufi M. The Prevalence of Depression among the Students of Ardabil University of Medical Sciences, 2003. *J Ardabil Univ Med Sci.* 2004; 4 (1) :7-11
2. Navidian A, Masoudi Gh, Mousavi S S. The study of occupational stressors and its relation with general health in nursing staff of emergency wards of Zahedan hospitals. *Journal of Kermansha University of Medical Sciences.* 2006; 9(3): 33-39
3. Salmaani Barough N, Taghavi Larijani T, Monjamed Z, Sharifi N, Bahrani. Coping with stress. *Hayat.* 2005; 10 (4) :21-27
4. lancaser s.community health nursing proj and practice for promoting health.third edition.st louise . mosby company.1998,pp:434-440
5. laschinger hk,rong c.leader behavior impact on staff nurse empowerment and job tersion and work effectiveness. *J nurse Adm-1999;29(5):28-39*
6. Harold Kaplan and Benjamin Saduk, *Abstract Clinical Psychiatry.* Nosratollah Pour Afkari, Third Fall 1998, Tehran, Azadeh, p. 99
7. Karimi A, Rezaei Abolhasani T, Hashemi N, Surveying the prevalence of stress in the staff of the operating room of the educational hospitals of Qazvin 2007; 3(6): 23-28
8. M. Khodaveisi , M.Sc., N. Mohammadi, M.Sc, A.Omidi, M.Sc.. Frequency of Job Stress in Clinical Nurses. *Avicenna J Nurs Midwifery care.* 2006; 13 (2) :44-54
9. SH.Kolakari (M.Sc), A.Sanakoo (M.Sc), F.Mirkarimey (M.Sc), N.Behnampour (M.Sc). The level of stress among Gorgan University of Medical Sciences hospital operation room's personals and its relation to some related factors . *J Gorgan Univ Med Sci.* 2002; 4 (2) :54-59
10. Yousefi R, Namdari K, Adhamian E. A COMPARISON OF DEPRESSION AND OCCUPATIONAL STRESS IN PSYCHIATRICS AND NON PSYCHIATRICS UNIT NURSES AND OFFICIAL EMPLOYEES. *J Urmia Nurs Midwifery Fac.* 2006; 4 (2) :80-90
11. Mohammad\_Begi A, Hahani F, Mohammadsalehi N. Association of psychological health status and job satisfaction in the staffs of Arak hospitals. *ZJRMS.* 2012; 13 (10) :8-8
12. Ghasemi S A, Attar M. The study of severity of occupational stressors in nurses of hospitals in Babol, Sari and Behshahr. *Park of science and technology.* 2014; 3(4): 12-18
13. Sahebi L, Ayatollahi M. [Mental health status of hospitals staffs in Shiraz]. *Horizon Med Sci.* 2007;12(4):26-33 .
14. Khani H, Ghodsi H, Nezhadnik H, TEYMOURI S, Ghodsi A. Depression and its relationship with hypochondriasis in nurses in Neyshabur, Iran.

- 285 15. Heirani p. Study of stressors in nurses. *Journal of Mental Health*, 2008; 10(3): 231-237.
- 286 16. Molazem Z, Mohammadhoseini S, Karimi Z, Zadehbagheri G. A Study on Job Stress-  
287 Making Factors and their Degrees of Stressfulness from the Nurses' Viewpoint in the  
288 University Hospitals of Kohgiluyeh & Boyrahmad . *Armaghane danesh*. 2005; 10 (3) :95-103
- 289 17. mortaghighasemi M, ghahremani Z, vahedianazimi A, ghorbani F. Nurses Job Stress in  
290 Therapeutic Educational Centers in Zanjan . *Journal of Research Development in Nursing &*  
291 *Midwifery (jgbfnm)*. 2011; 8 (1):42-51.
- 292 18. Khajeh Nasiri F. A study of depression prevalence of nurses and its effective factors in  
293 Tehran Emam Khomeini Hospital. *Tehran Univ Med J*. 2000; 58 (1) :10-14
- 294 19. Willy E, , Kristian T and Stein. Work factors and psychological distress in nurses' aides:A  
295 prospective cohort study. *Journal Of Biomedical Nursing*. 2006 ; 6 : 290-97
- 296 20. Williams, T.A; Relationships between stress, job satisfaction, coping strategies among nurses  
297 ; public health and the environment institute; Washington , DC; 2004, P:224-228

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