

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

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4

5 Abstract

6 **Introduction:** Long-term stress can also lead to mental disorders such as anxiety, depression
7 and physical burnout. The aim of this study was to determine the relationship between
8 hospital occupational stress and prevalence of depression among nurses working in Ilam
9 hospitals.

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

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

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

27 **Keywords:** Depression, Job stress, Nurses, mental disorders

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30 Introduction:

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

35 Medical affiliates are responsible for providing comfort, comfort and treatment for patients
36 under the influence of seizure factors. The work environment of hospitals creates a lot of
37 stress that can lead to anxiety in health care workers (2). By identifying the most important
38 stressors among medical staff, the need to review and modify management structures and
39 reduce individual stressors and care providers by their respective authorities, can reduce
40 mental stress and promote general health and as a result, reducing the burnout of nurses (1).

41 Stress is a very complicated phenomenon that sometimes becomes problematic, and if a
42 person is unable to adapt to it, his body and mind are threatened (3). Stress factors cause
43 damage to the form of basic needs and incite intervention in human development and

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

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

69 In another study on nurses, it was found that 44.1% of the studied samples had high stress,
70 54.1% had moderate stress and 1.8% had low stress. There was a statistically significant
71 relationship between the degree of occupational stress and the type of hospital, so there was a
72 higher stress level in the teaching hospital than non-teaching hospital and there was also a
73 significant relationship between work history and stress (9). Somewhere else, at each time
74 point, 20-15% of adults have signs of depression and at least 12% of those who go to
75 treatment are depressed. It is estimated that about 75% of admissions to mental hospitals are
76 depressed (10). There was no significant difference in the amount of depression in nurses
77 from the psychiatric and non-psychiatric departments and the administrative staff group, but
78 in terms of the level of work stress, the results showed that the nurses' group compared to the
79 staff group The office section experiences high stress (10).

80 Also, according to the research of hospital personnel, there is a significant difference in the
81 relationship between personal life at three levels of satisfaction. Considering the shift in the
82 work of hospital personnel, the need to provide night shift services may interfere with
83 emotional communication (11).) Therefore, attention should be paid to the emotional and
84 psychological state of employees with regard to work shifts. In today's world, people spend
85 most of their social life in work and work environments, and since work is an important and
86 meaningful aspect of every human's life, it seems that attention to Occupational stress and
87 other psychological problems are essential. The occupational environment always affects the
88 individual, in other words, the characteristics of the job and personal characteristics are
89 constantly interactive and dynamic. In addition, work-related stress for both the individual
90 and the organization causes considerable losses. According to an approximate estimate of
91 work-related problems, the US economy loses 75-90 billion dollars annually (12). Our aim is
92 to determine the relationship between hospital occupational stress and the prevalence of

93 depression in nurses working in Ilam hospitals. Since job stress is one of the most important
94 occupational hazards of the present age, it can lead to absenteeism and reduction The
95 production and the transfer of strength and work conflicts are important, considering its
96 causes and the relationship that is associated with work-related depression in a particular
97 environment. It is hoped that providing information about depression and occupational stress
98 can provide solutions to deal with them and reduce their harmful effects, as well as reduce the
99 health and treatment costs of employees to treat stress and depression.

100 **Method:**

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

120 **Results:**

121 In this study, 110 nurses with a mean age of 30.26 ± 8.25 years with a work experience of
122 1.19 ± 0.39 years and a daily and monthly work rate of 55.5 ± 64.22 , 201 hours and the
123 average night shift was 5.28 ± 3.84 . (Table 1)

124 In this study, 62.7% were female and 37.3% were men and 57.3% were married and 92% had
125 more than 5 family members. In each department of women, emergency, pediatrics and
126 dental care, 4.6% of nurses were employed, 49.1% were nurses in the surgical department,
127 4.5% in the special department and 20.9% in other sectors. They were working. Other
128 demographic information is listed in Table 2.

129 8.1% of depression nurses were dangerous, and 4.5% had severe depression and 14.5% had
130 moderate depression. Most of the nurses had depression in different severity and there was no
131 significant relationship between depression and gender. ($p = 0.3$)

132 According to the results, nurses with a degree in diploma and doctor did not have any
133 depression and nurses with a master's degree had only 10% had mild depression. Also, nurses
134 with bachelor's degree (59.7%) had no depression, 13.9% had depression Mild and 16.7%
135 had moderate depression, 6.9% had severe depression and 2.8% had a severe depression. And
136 5.9% and 23.5% had mild to moderate depression, respectively. However, There was no
137 significant relationship between depression and educational degree ($p = 0.56$).

138 Nurses in the women's, emergency, pediatric, special, and domestic sectors did not have
139 severe depression, and only those in the surgical ward had a severe depression of 1.9%. There

140 was no significant relationship between depression and type of nurses ($p = 0.78$).

141 Also, there was no significant relationship between depression and marital status and type of
 142 employment ($p = 0.16$, $p = 0.18$, respectively). Thus, married people and single people were
 143 76.2% and 57.4% without depression, and only in single subjects (4.3%) severe depression
 144 was seen.

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

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

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

155 Also, there was a significant relationship between job stress and academic achievement ($p =$
 156 0.002). Persons with high degree of occupational stress had high job stress and those with
 157 PhD degrees had low job stress.

158 81% of married people had low job stress and 29.8% of single individuals had moderate
 159 occupational stress, however, there was no statistically significant relationship between job
 160 stress and marital status ($p = 0.19$). In the emergency ward of the hospital, 57.1% of the
 161 nurses had moderate occupational stress. In the pediatric sector, 85.7% of the cases were low
 162 in occupational stress, and in occupational and nursing sectors, nurses were not moderately
 163 job stressed and had only a small range of occupational stress. Therefore, there was no
 164 statistically significant relationship between job stress and section type ($p = 0.08$)

165 Also, there was no significant relationship between job stress and nurses' employment ($p =$
 166 0.85). So that formal nurses were less likely to have job stress and contract and service nurses
 167 had a moderate degree of occupational stress.

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

170 **Table 1. Mean and standard deviation of the quantitative variables studied in Ilam 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 hours	110	64/8	2/82
Monthly working hours	110	55/201	64/12
Night shift	110	28/5	3/84

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Table 2. Frequency distribution of demographic characteristics of nurses and its 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		
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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Discussion:

176 The aim of this study was to determine the relationship between occupational stress and
177 prevalence of depression in nurses working in hospitals in Ilam. The results of this study

178 showed that 31.8% of the samples had a degree of depression that was consistent with the
179 results of Sahebi (13).

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

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

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

198 There was no significant relationship between severity of depression and education level ($P =$
199 0.56), which was not consistent with the results of Khajeh Nasiri (18). According to a Khajeh
200 Nasiri study, when nurses lacking clinical information, this disrupts organizational behaviors
201 and leads to a false sense of inadequacy, but because job stress has a direct relation to the
202 level of nursing education. It can be concluded that the level of job stress will probably
203 decrease with increasing levels of education and clinical information.

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

207 There was a meaningful statistical relationship between marital status and job stress, so that
208 married people with low job stress and unmarried people had moderate occupational stress. In
209 this regard, social support such as family and marital relations can be associated with stress
210 induced relationships. In non-supported environments, the level of job stress increases, and

211 married nurses experience significant job stress lesser as they receive more support from their
212 families.

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

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

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

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

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

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

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

238 **Conflict of interest:**

239 There are no conflicts of interest in this article.

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247 **References:**

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