



International Journal of Healthcare and Medical Sciences

ISSN(e): 2414-2999, ISSN(p): 2415-5233

Vol. 3, No. 11, pp: 93-97, 2017

URL: <http://arpgweb.com/?ic=journal&journal=13&info=aims>

Occupational Stress and Its Related Factors in Nursing and Midwifery Personnel in Zahedan Training Hospitals

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Abstract: A cross-sectional study was performed on 422 nursing and midwifery personnel of Zahedan training hospitals in 2016 to determine the occupational stress and its related factors. Data were collected by a demographic questionnaire and HSE Job Stress Questionnaire. Data were analyzed using descriptive statistics, independent t-test, one-way ANOVA and Pearson correlation coefficient. The software used to analyze the data was SPSS 17. The findings showed that the mean \pm standard deviation occupational stress was 114.45 ± 16.16 . 4% of subjects had moderate stress, 79.6% had normal stress and 16.4% had no stress. There was no significant relationship between age, gender, education, work experience, job position, ward and employment status with occupational stress, but there was a significant relationship between marital status and occupational stress. Based on the results of this study, the occupational stress level in nursing and midwifery personnel working in educational hospitals in Zahedan was relatively favorable and only a small percentage of people suffered from moderate stress.

Keywords: Stress; Professional; Nurse; Midwife; Iran.

1. Introduction

Nowadays, despite technological advances, disorders such as stress and anxiety are posed as the disease of the century [1]. Occupational stress is one of the types of stress that we face every day. It interacts with working conditions and personal characteristics, so that the demands of the workplace (and consequently the associated pressures) are more than the individual's ability [2]. Although stress exists in all occupations, it matters more in professions that deal with human health [3]. Nursing is a career that is closely linked to the health of people and is characterized by aspects of clinical nursing care that includes human communication between individuals and groups [4]. The American National Safety Professional Association has introduced nursing at the top of 40 professions with high levels of stress and high prevalence of illnesses caused by it [5]. This group of community workers is faced with a number of stressors daily, such as overwork, individual conflicts, shift work, dealing with death, lack of mental support, conflict with doctors, and ambiguity in the scope of authority [6]. Also, occupational stress can cause hypertension, heart disease, asthma, depression, and headache, it has cost billions of dollars to governments [7].

The results of Fesharaki et al. study showed that there was no significant relationship between gender, marital status, and socioeconomic level with occupational stress. There was a significant relationship between age and education with occupational stress, as job stress decreased with increasing education [8]. In the study of Hashemzadeh et al., there was no significant relationship between occupational stress and gender. The level of occupational stress in contract employees was higher than other employees, significantly. Also, the level of occupational stress in single employees was higher than other employees [9]. The results of another study showed that there was no significant relationship between age, marital status and work place, but there was a significant relationship between gender, educational level and work experience [10].

Studies on occupational stress and its related factors have shown contradictory results. Therefore, considering the adverse physical and psychological effects of occupational stress and reducing the efficiency of work, the present study was conducted to investigate occupational stress and its related factors in nursing and midwifery personnel.

2. Material and Method

This cross-sectional descriptive study was performed on nursing and midwifery personnel of training hospitals in Zahedan from August to November, 2016. Sampling method was census. The initial estimation was 750 people, among which 500 people were pleased to participate in the study. The inclusion criteria were having a work experience of at least 6 months, and not taking drugs affecting the psyche. This study was approved by the Ethics Committee of Zahedan University of Medical Sciences (Code of Ethics: IR.ZAUMS.REC.1395.146).

The data were collected using a demographic (age, gender, marital status, educational level, job position, work ward, work experience, employment status) and HSE occupational stress questionnaires. HSE contains 35 questions, which include a 5-point Likert scale (never = 1, rarely = 2, sometimes = 3, often = 4, and always = 5) and 7 subscales, which are: demand (8 questions), control (6 questions), peer support (4 questions), support of managers and supervisors (5 questions), communication (4 questions), role (5 questions) and change (3 questions). Questions 3, 5, 6, 9, 12, 14, 16, 18, 20, 21, 22, and 34 are scored in reverse order. In this questionnaire, high scores indicate more health and safety and low scores reflect more stress. The HSE occupational stress questionnaire was translated to Persian and its validity and reliability was evaluated by Dr. Esfandiar Azad Marzabadi et al. [11].

The reliability of this questionnaire was re-examined in this study (Cronbach's alpha = 0.81). Demographic and HSE questionnaires were provided to qualified individuals after obtaining informed consent and were collected after completion. Questionnaires that were not fully answered were deleted and finally the data were analyzed on 422 questionnaires.

Descriptive statistics, independent t-test, Pearson correlation test and one-way ANOVA were used to analyze the data. Data were analyzed using SPSS software version 17 at 95% confidence level.

3. Results

The mean \pm SD age of participants was 31.12 ± 6.67 with a minimum of 21 and a maximum of 52 years. The mean \pm SD work experience was 7.9 ± 6.57 years. Most of the subjects were female (79.9%), had undergraduate degrees (83.4%) and official recruitment (37.2%). Table 1 shows the demographic characteristics of the subjects.

Table-1. Demographic characteristics of participants

Characteristic	N (%)
Work ward	
General units	261 (62)
Intensive care units	160 (38)
Education	
Diploma	30 (7.1)
Associate degree	18 (4.3)
Bachelor	352 (83.8)
master degree	19 (4.5)
PhD	1 (0.2)
Job position	
Practical nurse	43 (10.2)
Nurse	319 (76)
Midwife	13 (3.1)
Staff	13 (3.1)
Head nurse	23 (5.5)
Supervisor	9 (2.1)
Recruitment	
Official	156 (37.2)
treaty	49 (11.7)
Contractual	106 (25.3)
Other	108 (25.7)
Marital status	
Single	129 (30.7)
Married	282 (67.1)
Divorced	6 (1.4)
widdow	3 (0.7)

The results showed that the mean \pm SD occupational stress was 114.46 ± 16.16 . Frequency of people at different levels of stress in the studied areas is presented in Table 2. According to this table, the highest level of occupational stress was related to the support of managers and the lowest level of job stress related to the role of the role. Pearson correlation test did not show a significant relationship between age and work experience with occupational stress ($P > 0.05$). Independent t-test did not show significant statistical correlation between gender and occupational stress ($P > 0.05$). One-way ANOVA showed that there was no significant relationship between education, work experience, job position, work ward and employment status ($P > 0.05$), but there was a significant relationship between marital status and occupational stress ($P = 0.03$), as the divorced women had more occupational stress.

Table-2. Frequency (percent) of people at different levels of stress in the studied areas

The area of stress	without stress	Natural stress	Moderate stress	Severe stress
Demand	34 (8.1)	249 (59)	134 (31.8)	5 (1.2)
Control	112 (26.5)	224 (53.1)	84 (19.9)	2 (0.5)
Support of managers	117 (27.7)	239 (56.6)	58 (13.7)	8 (1.9)
Peer support	115 (27.3)	242 (57.3)	60 (14.2)	5 (1.2)
Communication	74 (17.5)	234 (55.5)	107 (25.4)	7 (1.7)
Role	261 (61.8)	130 (30.8)	25 (5.9)	6 (1.4)
Change	121 (28.7)	232 (55)	62 (14.7)	7 (1.7)
Occupational stress	69 (16.4)	336 (79.6)	17 (4)	0 (0)

4. Discussion

The aim of this study was to investigate occupational stress and its related factors. In this study, a small percentage (4%) of nursing and midwifery personnel working in training hospitals in Zahedan had a moderate occupational stress. The results of this study were consistent with the results of Bahrami et al. study [12], But it was different from the results Nasr Esfahani et al study [13]. It seems that this difference is due to differences in the study population. Nasr Esfahani et al study conducted on nurses working in the emergency ward, while present study was conducted on all nursing and midwifery personnel. The results showed that nursing and midwifery nursing personnel in Zahedan training hospitals were in a relatively desirable position in terms of job stress.

The results also showed that the highest level of occupational stress was related to the support of managers and the lowest occupational stress related to the role domain. In the Namdari et al. study, the highest level of occupational stress was related to the support of managers and the lowest was related to the role domain [14]. In the study of Shahnazdoust et al., the support of managers was the factor that caused stress and burnout more than other factors, so that the support of managers led to better job performance and prevention of occupational stress [15]. Therefore, hospital managers can be aware of the problems and conflicts of occupation of employees by creating a friendly and intimate environment. Managers can reduce their stress by supporting employees to solve or reduce problems.

In this study, there was a significant relationship between marital status and occupational stress, so that the highest level of stress was observed in divorced and widower than married and single adults. The results of Ghassemi Pirbalouti et al. Showed that there was no significant relationship between marital status and job stress [10]. There was no significant relationship between occupational stress and marital status in Namdari et al. study [14]. However, some studies have shown that there was a significant relationship between marital status and occupational stress [16]. The reason for the difference between the two studies mentioned in this study is probably due to the difference in the research community, because the study also examined the occupational stress among the divorced and the deceased spouse. Divorce and widows seem to be more stressed for cultural and social reasons in general.

The findings showed that there was no significant relationship between age and occupational stress which was consistent with the results of Ghassemi Pirbalouti et al. study, But it was different from the results of the study by Fesharaki et al. [8, 10]. This difference is probably due to differences in the method of work and community of research in this study with the study of Fesharaki et al..

There was no significant relationship between work experience and occupational stress, which was consistent with the results of moein et al. study [5]. But the results of Gholamnejad et al. study showed that there was a negative relationship between work experience and occupational stress [17]. Also, there was a significant relationship between occupational stress and work experience in Namdari et al. study, So that with increased work experience, occupational stress also increased [14]. The present study was conducted in training hospitals, that part of the responsibility for providing services to patients is borne by mentors and their students, which may be a reason for the lack of a relationship between work experience and occupational stress.

The findings showed that there was no significant relationship between occupational stress and employment status, but the level of occupational stress in treaty staff was higher than other employees. The results of Hashemzadeh et al. study showed that there was a significant relationship between occupational stress and employment status, so that the level of occupational stress in contract staff was higher than other employees [18]. It seems that the uncertainty about the job status of the treaty and contractual employees justifies the higher level of occupational stress in them.

The findings showed that there was no significant relationship between educational level and occupational stress. These results were consistent with the results of the study by Moein et al. [5]. However, it was different from the results of the study by Namardi et al. And Ghassemi Pirbalouti et al.. This difference is probably due to the difference in the research community of the present study with the recent two studies because all the nursing and midwifery providers have been studied in this study, but only nurses were studied in the Namdari study and Ghassemi Pirbalouti study. There was no significant relationship between work ward and occupational stress, which was consistent with the results of Ghassemi Pirbalouti et al. study. There was also no significant relationship between job position and occupational stress. In the current study, there was no significant relationship between gender and occupational stress. These results were similar to those obtained in the study of Fesharaki et al. And Namdari et al.,

While they were different with the results of Ghasemi Pirbalouti et al. and Dai et al [19]. study. This difference may be due to differences in the research community of the present study with two recent studies.

5. Conclusion

Considering that the highest level of occupational stress was related to the support of managers, it seems that the establishment of measures to encourage employees from managers, providing job security, individual support and communication skills training can reduce job stress in nursing and midwifery personnel.

Acknowledgments

This article is the result of a research project number 7935 approved by the Student Research Committee of Zahedan University of Medical Sciences and all the costs of the project are provided by this university.

Conflict of interest

The authors declare that there are no conflict of interest.

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