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Evaluation of Occupational Health and Safety Practices by Hospital Staff

İş Sağlığı ve Güvenliği Uygulamalarının Hastane Çalışanları Tarafından Değerlendirilmesi

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ABSTRACT

The research was conducted to evaluate the occupational health and safety practices of the health personnel working in a state hospital affiliated to the Bingöl Provincial Health Directorate. The research is a descriptive type of research; It was carried out with 80 nurses, 20 doctors and 50 other health personnel working between May 2018 and November 2018. The Personal Information Form used in the study constituted the first part of the questionnaire, the Employee Health and Safety Information Form the second part of the questionnaire, and the Occupational Safety Scale for the Health Personnel Working in the Hospital the third part of the questionnaire. Data were analyzed by transferring to SPSS 15.0 statistical program. In the evaluation of the data, descriptive statistics frequency, percentage, mean, standard deviation, t test, analysis of variance were used. The rate of those who had a work accident in the hospital where the study was conducted was 78.7%. In the evaluation of occupational safety scale score according to the professions of health personnel; nurses scored 187.38±22.39, doctors 181.75±19.05, and other health personnel 183.54±22.36. In the evaluation of scale points according to the units they work; Health personnel working in the laboratory scored 178.42±20.54, and those working in hemodialysis scored 192.35±23.34. It was concluded that the health personnel were satisfied with the occupational health and safety practices in the general scale score evaluation.

Keywords: Occupational Health, Occupational Safety, Hospital Staff.

ÖZET

Araştırma Bingöl İl Sağlık Müdürlüğü'ne bağlı bir devlet hastanesinde çalışan sağlık personelinin iş sağlığı ve güvenliği uygulamalarını değerlendirmek amacıyla yapılmıştır. Araştırma tanımlayıcı tipte bir araştırma olup; Mayıs 2018 - Kasım 2018 tarihleri arasında çalışan 80 hemşire, 20 doktor ve 50 diğer sağlık personelinde gerçekleştirilmiştir. Çalışmada kullanılan Kişisel Bilgi Formu anketin birinci kısmını, Çalışan Sağlığı ve Güvenliği Bilgi Formu anketin ikinci kısmını ve hastanede Çalışan Sağlık Personeli İçin İş Güvenliği Ölçeği anketin üçüncü kısmını oluşturmuştur. Veriler SPSS 15.0 istatistik programına aktarılarak analiz edilmiştir. Verilerin değerlendirilmesinde tanımlayıcı istatistikler frekans, yüzde, ortalama, standart sapma, t testi, varyans analizi kullanılmıştır. Çalışmanın yapıldığı hastanede iş kazası geçirenlerin oranı %78.7 bulunmuştur. Sağlık personelinin mesleklerine göre iş güvenliği ölçek puan değerlendirilmesinde; hemşireler 187.38±22.39, doktorlar 181.75±19.05, diğer sağlık personeli ise 183.54±22.36 puan almıştır. Personelin çalıştıkları birimlere göre ölçek puan değerlendirilmesinde; laboratuvarda çalışan sağlık personeli 178.42±20.54, hemodiyalizde çalışanlar ise 192.35±23.34 puan almıştır. Sağlık personelinin genel ölçek puanı değerlendirmesinde iş sağlığı ve güvenliği uygulamalarından memnun olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: İş Sağlığı, İş Güvenliği, Hastane Çalışanlar

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INTRODUCTION

Occupational safety is the systematic work carried out to protect the employees from the dangers that may occur during the execution and execution of the work and from the dangers that may occur during the execution of a work (1). With occupational safety, it is aimed to protect the employees, to ensure the service provided and the security of the institution. The purpose of occupational safety is to protect employees and ensure corporate safety. In addition to these, it is stated that one of the main purposes of occupational safety is to protect employees. It is also aimed to ensure that employees can work in safer environments, to protect workplaces from harmful effects, and to ensure the mental and physical integrity of employees (2,3). In addition, it is desired to increase the morale of the employees, to increase the harmony and efficiency, and to satisfy the employees spiritually (2). Today, the tendency to create a healthy and safe work environment in hospitals has accelerated (4). In the USA, the National Institute for Occupational Safety and Health (NIOSH) defines a safe and healthy hospital environment as follows: chemical, physical, biological hazards that may harm health during the execution of work, and occupational accidents and occupational diseases related to risks is not (5,6). However, drugs, infections, wastes, inadequate working conditions and lack of materials, high workload, careless approach of the staff bring the employees to face the risks of many accidents and diseases in hospitals (7,8). In many studies, it has been determined that physicians, nurses and other health personnel experience negativities such as extremity pain, needle sticks, discomfort caused by disinfectants, diseases caused by viruses, stress due to the inability to provide a safe working environment (5,9,10). In addition, victims of skin diseases, infectious diseases, vascular problems and occupational diseases were also determined (8,11,12). In the regulation issued by the Ministry of Health on employee and patient safety, besides patient safety, working criteria for employee safety were included, the importance of the issue was revealed, and issues related to employee safety were secured through legal studies (13,14). For these reasons, with this study to measure the level of occupational health and safety of health workers working in hospitals, we can determine the competence of occupational health and safety practices in hospitals, in which areas or departments these practices are missing, and what are the most common accidents or injuries. In addition, with this study, we can contribute to the reduction of work accidents and occupational diseases by determining what kind of precautions should be taken against risks in workplaces. We can prevent workforce losses in health and the problems that may arise from these losses. A more peaceful, satisfying and motivating work environment also contributes to ensuring patient safety. With our work, we can lay the groundwork for patients to receive better quality service and reduce costs. Purpose of the research; To determine the competence of occupational health and safety practices of health workers working in hospitals and to make evaluations about them.

MATERIAL AND METHOD

Type of Research

This research is a descriptive study designed to evaluate the adequacy of occupational health and safety practices of health workers.

Population and Sample of the Research

Laboratory technicians, emergency medicine technicians, anesthesia technicians and hemodialysis technicians as doctors, nurses and other health workers working at Solhan State Hospital were included in the

study. In the study, it was aimed to reach all employees who agreed to participate in the study without resorting to sampling. Reached 150 of 180 participants working at the hospital (83%)

Data Collection Tools

The data in this research; it was collected using the "Personal Information Form" that includes sociodemographic information, the "Occupational Health and Safety Information Form" that defines the questions of employee health and safety culture, and the "Occupational Safety Scale for Health Personnel Working in the Hospital".

Introductory Information Form

It consists of 9 questions that include information such as age, gender, marital status, education level, title in the hospital, years of employment in the institution, economic situation, department worked in the hospital.

Employee Health and Safety Information Form

Reflecting the security culture of the institution; Satisfaction with employee safety, occupational health and safety training, probability of occupational diseases and work accidents in the institution and their causes, management support, training for occupational diseases, sharps and sharps injuries and their recording, personal protective equipment dimensions by the researcher. It consists of 20 developed questions.

Occupational Safety Scale for Health Personnel Working in the Hospital

In this study, the occupational safety level of the health personnel was measured with the "Occupational Safety Scale for the Health Personnel Working in the Hospital". The scale was developed by Öztürk and Babacan in 2012 (15). Expressions on a six-point likert scale; 1: Completely Disagree 2: Disagree 3: Partially Disagree 4: Agree Slightly 5: Agree 6: Agree Completely. The scale consists of 45 questions and the total score varies between 45-270. A score close to 270 indicates adequate occupational health and safety at the hospital, and a score close to 45 indicates inadequate occupational health and safety. When these scores are divided by the number of items in order to make a comparison, they take a value between 1 and 6 points in the total scale and at the sub-19 factor level, and the scale scores are evaluated in this way. Occupational Diseases and Complaints (F1), Health Screening and Recording Systems (F2), Accidents and Poisoning (F3), Administrative Support and Approaches (F4), Material-Tools and Equipment Inspection (F5), Protective Measures and Rules (F6), There are 7 sub-factors under the title of Physical Environment Suitability (F7).

Data Collection

Data were collected between 08:00-17:00 in May 2018 - November 2018. Health professionals who agreed to participate in the study were asked to fill out the questionnaires. Each form was filled in an average of 30 minutes.

Inclusion and Exclusion Criteria

Healthcare workers who were in the hospital at the time of the study and volunteered to participate in the study were included.

Variables of the Study

Descriptive information belonging to healthcare professionals constituted the independent variable, and the Occupational Safety Scale for Healthcare Personnel Working in the Hospital formed the dependent variable.

Statistical Analysis

The data obtained from the research were analyzed by transferring them to the SPSS 15.0 program on the computer. The descriptive characteristics and distributions of health workers participating in the research were explained with frequency tables. The distribution of the answers given by the health personnel to the statements in the scale of "Occupational Safety for Health Personnel Working in the Hospital" was given as mean and standard deviation. Relationships between variables were

determined by analysis of variance and t test. The results were evaluated at the 95% confidence interval and significance level of $p \leq 0.05$. When interpreting the tables, the ones with p less than 0.05 were interpreted as statistically significant, and those that were larger were interpreted as insignificant.

Ethical Aspect of Research

The ethical approval application required for the implementation of the research was made to Hasan Kalyoncu University Health Sciences Institute. After obtaining the approval of the ethics committee (06.06.2018-Decision No:2018-05), the study was initiated by obtaining the necessary permission from the Bingöl Provincial Health Directorate and the management of Solhan State Hospital (18.03.2018-Number: 81966737-044). Health personnel participating in the research; It was assured that the research was on a voluntary basis, that people were free to participate in the study and that they could withdraw from the study at any time, and that all information was kept in accordance with the principle of confidentiality and that this information would not be used outside of this research.

Limitations of the Research

The limitation of the study is that it only covers health personnel working in public hospitals.

Acknowledgment/Supporting Organization

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FINDINGS AND DISCUSSION

Table 1. Sociodemographic Characteristics of Health Personnel (N=150)

Features	Count	%
Gender		
Woman	60	40
Male	90	60
Marital Status		
The Married	60	40
Single	90	60
Economical Situation		
Income More Than Expenses	43	28.7
Income Equal to Expense	55	36.7
Income Less Than Expenses	52	34.6
Education Level		
High School	45	30
Associate Degree	60	40
Undergraduate/Graduate	45	30

The sociodemographic characteristics of the health personnel participating in the study are given. 40% of the personnel are women, 60% are single, 28.7% have more than their income, 36.7% have less than their expenses, 30% are high school graduates, 40% are associate degree graduates (Table 1).

Table 2. Distribution of Health Personnel's Satisfaction with Employee Safety Practices (N=150)

Employee Safety Practices	Pleased		Not Glad		Total	
	Number	%	Number	%	Number	%
Working Hours	56	37.3	94	62.7	150	100
Task Distribution	53	35.3	97	64.7	150	100
Working Environment	55	36.7	95	63.3	150	100
Workload	48	32.0	102	68.0	150	100
Number of Physicians	52	34.7	98	65.3	150	100
Number of patients	54	36.0	96	64.0	150	100

37.3% of the health personnel stated that they were satisfied with the working hours, 35.5% with the task distribution, 36.7% with the working environment and equipment, 32% with the workload, 34.7% with the number of physicians, 36% with the number of patients (Table 2).

Table 3. Distribution of the Sub-Dimension and Total Scores of the Health Personnel of the "Occupational Safety Scale for the Health Personnel Working in the Hospital" (N=150)

Scale Sub-Dimensions	Minimum-Maximum Values That Can Be Taken From The Scale	Mean ± Standard Deviation
Occupational Diseases and Complaints (F1)	13-78	53.58 ± 6.38
Health Screening and Registration Systems (F2)	6-36	24.36 ± 4.12
Accidents and Poisonings (F3)	5-30	20.93 ± 3.14
Managerial Support and Approaches (F4)	7-42	28.74 ± 4.29
Materials, Tools and Equipment Inspection (F5)	5-30	20.64 ± 3.20
Protective Measures and Rules (F6)	5-30	20.27 ± 3.36
Physical Environment Suitability (F7)	4-24	16.82 ± 3.55
Total	45-270	185.35 ± 21.94

Healthcare personnel's F1 sub-dimension mean score is 53.58±6.38, F2 sub-dimension mean score is 24.36±4.12, F3 sub-dimension mean score is 20.93±3.14, F4 sub-dimension mean score is 28.74±4.29, F5 sub-dimension mean score is 20.64±3.20, F6 sub-dimension mean score mean score of 20.27±3.36, mean score of F7 sub-dimension is 16.82±3.55. The total scale mean score of the participants was 185.35±21.94 (Table 3).

Table 4. Comparison of the Scale Total Scores of the Health Personnel According to the Units They Work (N=150)

Worked Unit	Nember	Mean ± Standard Deviation	f	p
Service	41	187.26±23.42	0.257	0.935
Intensive Care	11	186.13±23.04		
Emergency	24	181.52±23.14		
Operating Room	13	188.00±21.07		
Management	18	185.28±21.08		
Policlinic	21	184.35±22.30		
Lab	12	178.42±20.54		
Hemodialysis	10	192.28±23.34		
Total	150	185.35±21.94		

The scale total score average of the health personnel working in the hemodialysis unit was found to be the highest (192.35±23.34), and the health personnel working in the laboratory the lowest (178.42±20.54). There was no statistically significant difference between the unit of study and the scale total score (p>0.05) (Table 4).

When the satisfaction rates for employee safety were examined, it was found that the health personnel were satisfied with the working hours the most and the workload practices the least (Table 2). In the study of Karaer et al. in 2016, satisfaction rates were higher (16). Working hour satisfaction is related to the availability of sufficient personnel in the hospital; workload dissatisfaction is thought to be related to the lack of a planned working system in the hospital.

Occupational safety scale sub-dimension score averages of the health personnel participating in the research; It was determined that the personnel got the highest score in the occupational diseases and complaints (F1) sub-dimension, and the lowest score was in the physical environment suitability (F7) sub-dimension (Table 3). In the overall score average of the scale, the health personnel scored above the average. Dikmetaş et al. 2013; In the study conducted by Karabulak and Kılıç in 2015, employees received low scores from the occupational safety scale (17,18). Ozturk et al. In 2012, it was stated that occupational health and safety was provided in the hospitals where they worked, but occupational safety practices were not sufficient at the level of occupational diseases and complaints (19). In our study, it is thought that the reason for the low scores in the physical environment suitability sub-dimension of the health personnel is related to the fact that the physical environment conditions are not at the desired level. The reason for satisfaction with general occupational health and safety practices; It is thought to be due to the strong communication established with the employees due to being a small-sized hospital, the fact that the unit for occupational health and safety is active in the institution, and the employees have learned

the steps to be followed in the accidents and diseases they suffer.

In the evaluation of the average score between the unit where the health personnel work and the sub-dimensions of the scale; those working in the laboratory scored the lowest, while those working in hemodialysis scored the highest (Table 4). Ozturk et al. In their study conducted in 2012, they concluded that nurses and doctors working in intensive care services found occupational health and safety practices more inadequate (19). The reason why the health personnel working in the laboratory got lower scores compared to the personnel in other units; It is thought to be related to the constant contact of the personnel with blood and liquid waste and the physical location of the laboratory in the basement.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

In the study carried out to evaluate the occupational health and safety practices of the health personnel working in the hospital, when the demographic characteristics were examined; The ratio of single and male personnel is high, those whose income is equal to their expenses are higher, the ratio of undergraduate and graduate / graduate students is low, the ratio of nurses is higher than other occupational groups, those with 4-7 years of professional experience are the highest,

When the data of the security culture is examined; The effect of the environment on sharp and piercing tool injuries, the fact that many practices related to employee safety are not satisfied, the rate of those who have occupational accidents is high, the employees are satisfied with the trainings on occupational health and safety practices in the institution, the personnel know their rights regarding occupational diseases and occupational diseases are not experienced much, and that the rate of using protective equipment in sharp and stab wounds is not sufficient.

When the data of the occupational safety scale for the health personnel working in the hospital are examined, it can be seen that the personnel are satisfied with the occupational health and safety practices, men and women according to their gender, married and single according to their marital status, doctors get the lowest points according to their profession, According to the units, those working in the hemodialysis unit got the highest score; It was concluded that there was no statistically significant difference between gender, marital status, occupation, unit of work and the scale score averages.

SUGGESTIONS

In line with the results obtained from the study;

Raising awareness that health workers should be screened at regular intervals due to sharp-stab wounds and occupational accidents, regular recording of personal health information, preparing an ergonomic working environment, providing robust, quality tools and materials, and appropriate use of these materials, calibration of vehicles-devices at regular intervals,

In case of any work accident or occupational disease, protecting the personnel working in addition to diagnosis and treatment opportunities, supporting the employee's family and giving their progress payments; Creating clear instruction schedules for situations such as patient lifting and lowering in risky units such as intensive care units and putting these instructions into action, training all hospital personnel to combat stress in similar stressful departments,

Ensuring that the human resources unit provides trainings that support the safety culture in the hospital, supporting and developing orientation studies,

Occupational health and safety issues are prioritized in the mission and objectives of the hospital, they are translated into written texts and delivered to the employees, control mechanisms are developed, and the work area supports the employee health and safety issue by making use of visual tools and equipment,

Using occupational health and safety management systems in raising awareness about occupational health and safety,

It is recommended that the occupational health and safety unit constantly renew itself, follow up current information and new legislation, and act accordingly.

Financial Resource

No financial resources have been used for this article.

Conflict of Interest

There is no conflict of interest regarding this article.

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