

Original Article

Workers' Information and Opinions on Worker Health and Work Safety

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Abstract

Background: Workers must be aware of what is happening around and their behavior is going on unsafe in terms of work safety. Workers was not trained about negative impacts to the health of his work and the work itself about the hazards posed are not easy that workers can improve the high performance and efficiency.

Objective: The aim of this descriptive study is to assess workers' opinions on worker health and safety and in-service education situations.

Methodology: Population of the study consisted workers textile, cement, sugar and furniture factory working in Erzurum. 413 workers who selected using stratified sampling method and accepted to participate in the study were included in scope of the study. Data was collected using the questionnaire, containing descriptive characteristics of workers, and the occupational health and safety scale.

Results: Most of(88.9%) the workers, use their personal equipment when necessary; 78.9% have never experienced an occupational accident; 55.7% of those who had an occupational accident experienced this accident due to environmental factors. Moreover; it is detected that 88.4% of the workers had in-service trainings; 45.8% have had these trainings regularly and that field of in-service trainings is generally 'methods of protection from accidents(67.6%)'. It is determined that 36.8% of workers do not have necessary information regarding professional diseases and are partially informed related to laws and regulations of occupational health and safety.

Conclusions: In the present study, it was determined that majority of workers have positive opinions on worker health and work safety and in-service training.

Key Words: Worker Health, Work Safety, Occupational Disease, Work Accident, Nursing.

Introduction

Work health is the studies that aims of keep, sustain and develop highest level of physical, psychological and social well-being for workers in all occupations (Karadag *et al*, 2012). Work safety is the systematic and scientific studies that aims to protect employees of the conditions which could harm their health and safety due to

various reasons during performing of the work (Gerek, 2006). Protect workers' psychological and physical health from the unfavorable effects of the workplaces, to take measures against accidents at work and occupational diseases, and to ensure their work in a safe environment, is the main aim of occupational health and work safety studies (Copur *et al*, 2006).

Our country is the first place in Europe in terms of accidents at work and occupational diseases and the third position in the world. Republic of Turkey Social Security Institution (SSI) was specified that 74.871 insured workers had work accidents, 744 were lost their lives due to accidents at work, 2.036 workers had been as "do not consistently work" by the result of work accidents, 1.000.000 working hours and 395 work days were lost and owing to work accidents occurs every 100 hours, work accidents severity rate was came true as 0,32 in total of 2012. According to statistics of SSI in 2012, one person was lost its life as a result of occupational diseases and owing to same cause 173 workers' status exist as "do not consistently work". Today, as coordinated with evolving industry and increase of machines' numbers and types that are used in the workplaces, in the presence of specific environmental factors and the nature of the business cause increase of work accidents and occupational diseases (Copur *et al*, 2006; Metgud *et al*, 2008).

Workers have some problems such as difficult working conditions, insomnia, fatigue, irregular working hours, the persons who have different educational levels but have to be as in the same authority and responsibility. In additional, they have problems with low-paid works, equipment failures and extra working time per week (Yılmaz, 2010; Oflezer *et al*, 2011). Work-related problems that persons had experienced are not only limited just with business life but that can also adversely affect on overall life satisfaction. Unfavorable results may lead to psychological and physical health problems on individuals (Yurur and Keser, 2011; Ağırbaş *et al*, 2005). It is not easy to improve performance and increase productivity for workers who did not informed about health hazards owing to work itself (Karacan and Erdogan, 2011).

Being not limited with the services provided by workplace health units; occupational health services require a multi professional team approach. Team members involve occupational nurses, occupational physicians, psychologists, occupational safety specialists, toxicologists, occupational hygienists, safety engineers, workers, employers and union representatives. All occupational groups aim at forming the concept of healthy worker (Beser and Bayık, 2009; Felton, 2000; Rieth, 2000). In occupational

health services, nurses are the most appropriate people to observe both the working environment and workers together with changes in the work process and execute occupational health services with all their responsibilities in many workplaces (Beser and Bayık, 2009; Felton, 2000; Rieth, 2000; Emiroglu, 2000). Because aim of occupational health nursing is to protect and promote the health of workers and form a healthy working environment (İsci and Esin, 2009; Akbayrak and Emiroglu, 2006; Esin, 2008). In order to achieve this aim; an occupational health nurse should determine the efficiency of occupational health and safety services and investigate the knowledge and views of workers regarding occupational health and safety, which are an important indicator of the care quality, and determine the satisfaction and problem areas of workers concerning the services being provided. These investigations of occupational health nurses will determine the quality of service, as well as the satisfaction and problems of workers with healthcare services, and provide feedbacks required for developing the services. Thus, a better care will be offered and use of healthcare services will be easier and faster (Beser and Bayık, 2009).

The purpose of this study was to evaluate the views of workers regarding the occupational health and safety and their state of receiving in-service training in order to protect the health of workers, determine the efficiency of occupational health and safety services and identify workers' satisfaction and problem areas regarding the services, which is an important indicator of care quality.

Study Questions:

1. Is there a correlation between the descriptive characteristics of workers and occupational accidents and the total mean scores of occupational health and safety scale?
2. How often and about which subjects do the workers receive in-service trainings?
3. What are the views of workers regarding the occupational health and safety at workplaces?

Methods

Study Objective and Type: This cross-sectional study was conducted to evaluate the views of workers regarding occupational health and safety and their state of receiving in-service training.

Population and Sample of the Study: The population of the study consisted of 750 workers working at textile (200), cement (250), sugar (148) and furniture (152) factories in Erzurum. The sample size was determined as 413 people at the significance level of $\alpha = 0.05$ and with the sampling error of $d = \pm 0.03$. Each workplace was determined as a stratum via the stratified sampling method. The workers in the sample (413) constituted 55% (750) of all workers in the population. The sample was determined by taking 55% of each stratum [textile (110), cement (138), sugar (81), furniture (84)]. Workplaces have an infirmary as a health unit and a part-time occupational physician who is present at factory for two hours and totally three days a week. When workers have health problems, they get examined on the days the physician is present. Apart from routine examinations, occupational physician does not offer training and counseling on health to workers.

Ethical Aspect of Study: The required written and verbal permissions were obtained from workplaces on condition that they remained anonymous, in accordance with the Helsinki Declaration and T.R. Ministry of Health, Regulations on Pharmaceutical Researches. Before distributing the questionnaires, the workers were informed about the objective of the study and those who agreed to participate were informed about how to fill the questionnaire.

Data Collection Tools: The data were collected by using a questionnaire involving the descriptive characteristics of the workers, their state of receiving in-service training, and subjects of in-service training and the 14-item Occupational Health and Safety Scale which was developed by Copur *et al.*, (2006), and whose validity and reliability study was conducted. The scale involves 14 likert-type items regarding the views of workers about occupational health and safety. These items are scored between 1 and 5 with options ranging from “strongly agree” to “strongly disagree”. The scale has a total score of 14-70. All the items were prepared as positive. Table 3 illustrates the evaluation of the answers of workers to the items formed to determine their views about occupational health and safety, in the study (“strongly agree”, “agree”, “strongly disagree” and “disagree”). While the alpha value calculated for the reliability of the study was $\alpha = 0.89$; the item total correlation values were between 0.46 and 0.72. The data were collected

by researchers making face-to-face interviews with workers for 15-20 minutes outside of working hours. The interviews were made with workers who agreed to participate in the study.

Preliminary Application: A preliminary application was conducted with 10 workers outside of the sample in order to determine the deficiencies, comprehensibility and application duration of the forms prepared. The forms were finalized after doing required amendments.

Analysis of the Data: The data were analyzed by using the SPSS 20.0 program.

Results

In this study, 21.1% of the workers had occupational accidents. The reasons of accidents were specified as; environmental factors (54%), personal factors (42.5%) and both environmental and personal (3.4%) factors. Comparing the state of having occupational accidents and descriptive characteristics; it was determined that occupational accidents were experienced mostly by male workers (21.9%), rotating workers (56.5%), those using no personal protective equipment (47.8%), those who were trained only at start of employment (30.5%), those who worked for less than 45 hours a week (36.1%) and those who had no knowledge about occupational illness (27.6%) in a statistically significant way ($p < 0.05$, Table 1). There was no statistically significant correlation between age, educational status, income/expense rate, duration of working, smoking and drinking, state of receiving in-service training, state of knowing the laws regarding occupational safety, and having occupational accidents ($p > 0.05$, Table 1).

Comparing the Occupational Health and Safety Scale and descriptive characteristics; it was determined that those who had less income than expense (26.4 ± 2.6), used no personal protective equipment (26.0 ± 3.7), received no in-service training (26.6 ± 3.8), worked for less than 45 hours a week (25.3 ± 3.0) and had occupational accidents (26.3 ± 3.2) had significantly lower scale mean scores ($p < 0.05$, Table 1). No statistically significant correlation was determined between age, gender, educational status, duration of working, smoking and drinking, frequency of training, state of having knowledge about the laws regarding occupational safety and occupational illness, and the mean scores obtained from the scale ($p > 0.05$, Table 1).

Table 1. Relationship Between Descriptive Characteristics and Work Accidents Experience Status, Work Health and Safety Scale

Descriptive Characteristics		Had a work accident				Scale	
		n	Yes (%)	No (%)	χ^2 , p	X \pm SD	t, F, p
Age	15-18	11	3 (27.3)	8 (72.7)	0.262	28.0 \pm 1.1	1.550
	19-64	402	84 (20.9)	318 (79.1)	0.706	26.9 \pm 2.7	0.212
Gender	Female	15	0 (0.0)	15 (100)	4.154	26.8 \pm 1.5	2617.5
	Male	398	87 (21.9)	311 (78.1)	0.048	26.9 \pm 2.7	0.408
Education Status	Elementary School	72	13 (18.1)	59 (81.9)		26.8 \pm 2.1	
	Secondary-High School	283	65 (23)	218 (77)	2.082	26.9 \pm 2.7	0.148
	University	58	9 (15.5)	49 (84.5)	0.353	27.0 \pm 3.3	0.862
Income-Expenses Ratio	Lower income	138	30 (21.7)	108 (78.3)		26.4 \pm 2.6	
	Equal	230	49 (21.3)	181 (78.7)	0.338	27.3 \pm 2.9	4.482
	More than Expenses	45	8 (17.8)	37 (82.2)	0.844	26.8 \pm 1.6	0.012
Experience	Lower than 1 year	24	7 (29.2)	17 (70.8)		28.0 \pm 2.3	
	1-4 years	120	28 (23.3)	92 (76.7)	1.805	26.9 \pm 1.9	1.604
	5 years and more	269	52 (19.3)	217 (80.7)	0.406	26.9 \pm 3.0	0.205
Working Status	Full time	284	45 (15.8)	239 (84.2)		27.0 \pm 2.5	
	Shift	106	29 (27.4)	77 (72.6)	24.568	27.1 \pm 3.0	2.338
	Rotative	23	13 (56.5)	10 (43.5)	0.000	25.2 \pm 3.6	0.311
Usage of Protective Equipment	Using	367	65 (17.7)	302 (82.3)	22.295	27.1 \pm 2.5	15.566
	Not using	46	22 (47.8)	24 (52.2)	0.000	26.0 \pm 3.7	0.010
Smoking	Using	168	38 (22.6)	130 (77.4)	0.411	26.7 \pm 2.7	0.164
	Not using	245	49 (20)	196 (80)	0.521	27.1 \pm 2.7	0.162
Alcohol	Using	26	7 (26.9)	19 (73.1)	0.601	26.8 \pm 2.4	0.059
	Not using	387	80 (20.7)	307 (79.3)	0.740	26.9 \pm 2.7	0.744
In-service training	Yes	365	76 (20.8)	289 (79.2)	0.112	27.0 \pm 2.5	19.041
	No	48	11 (22.9)	37 (77.1)	0.738	26.6 \pm 3.8	0.000
	Periodically	226	34 (15)	192 (85)		27.0 \pm 2.4	
Frequency of training	Start of the work	141	43 (30.5)	98 (69.5)	12.482	27.0 \pm 2.7	1.494
	No	46	10 (21.7)	36 (78.3)	0.002	26.7 \pm 3.9	0.222
Working hours per week	Lower than 45 hours	36	13 (36.1)	23 (63.9)		25.3 \pm 3.0	
	45 hours	282	62 (22)	220 (78)	9.109	27.0 \pm 2.5	7.858
	More than 45 hours	95	12 (12.6)	83 (87.4)	0.011	27.3 \pm 2.9	0.000
Knowledge of work health and safety	Yes	124	27 (21.8)	97 (78.2)		26.9 \pm 2.9	
	No	101	27 (26.7)	74 (73.3)	3.383	26.6 \pm 2.6	0.921
	Partly	188	33 (17.6)	155 (82.4)	0.184	27.1 \pm 2.6	0.399
Knowledge of Occupational Diseases	Yes	124	20 (16.1)	104 (83.9)		26.8 \pm 2.7	
	No	152	42 (27.6)	110 (72.4)	6.412	26.8 \pm 2.8	1.339
	Partly	137	25 (18.2)	112 (81.8)	0.041	27.2 \pm 2.7	0.263
Had a work accident	Yes		87 (21.1)		-	26.3 \pm 3.2	5.836
	No		326 (78.9)		-	27.1 \pm 2.5	0.032

Table 2. Workers in-service training status and in-service training issues

Workers in-service training status and in-service training issues		n	%
In-service training	Received	365	88.4
	Not received	48	11.6
Frequency of training	Start of the work and periodically	37	9
	Start of the work	141	34.1
	Periodically	189	45.8
Cleaning Methods	No	46	11.1
	Yes	85	20.6
Usage of cleaning supplies	No	328	79.4
	Yes	129	31.2
Protection from Accidents	No	284	68.8
	Yes	279	67.6
Hygiene	No	134	32.4
	Yes	86	20.8
Maintain and Use of Tools, Equipment	No	327	79.2
	Yes	239	57.9
Infection Control	No	174	42.1
	Yes	68	16.5
Communication	No	345	83.5
	Yes	95	23
First Aid	No	318	77
	Yes	229	55.4
Pest Control	No	184	44.6
	Yes	48	11.6
	No	365	88.4

Table 3. Distribution of workers' opinions regarding work health and safety

Opinions regarding work health and safety	Agree		No idea		Not agree	
	n	%	n	%	n	%
Enough training were given by to do my job better.	329	79.7	35	8.5	49	11.8
I can apply easily my received training in practice.	126	30.5	248	60	39	9.5
I think that my job responsibilities are well defined.	354	85.7	41	9.9	18	4.4
I do work efficient and harmonious with my colleagues.	368	89.1	22	5.3	23	5.6
I don't have any communication problem with superiors.	327	79.2	39	9.4	47	11.4
I have got necessary tools and equipments	358	86.7	30	7.3	25	6
I think that the tools are in compliance with my body measurements.	363	87.9	34	8.2	16	3.9
I found adequate the dining hall, changing and rest rooms.	332	80.4	31	7.5	50	12.1
I think that the size of working area are adequated.	353	85.5	28	6.8	32	7.7
I think that I have the necessary personel equipments to protect myself.	330	79.9	41	9.9	42	10.2
I think that sufficient security measures for the prevention of occupational accidents are enough.	311	75.3	61	14.8	41	9.9
I think that all the necessary measures were taken to be protected from diseases.	319	77.3	53	12.8	41	9.9
I found health service that given by occupational physician is enough.	240	58.2	51	12.3	122	29.5
I know what I have to do in an emergency situation.	340	82.4	34	8.2	39	9.4

By result of the research it was determined that the majority of workers (88.4%) were received in-service training and 45.8% of workers trained periodically. It was also determined that in-service training area is often called "the accident prevention measures" (67.6%) (Table 2). Subjects received education and domestic workers Service

Considering the opinions relating to workers' health and safety, these were expressed; The majority of the workers were took adequate training to do their works better (79.7%), the responsibilities for the works are well defined (85.7%), they do work efficient and harmonious with their colleagues (89.1%) they don't

experience any communication problem with their superiors (79.2%), they have already got all the necessary tools and equipments to do their job well (86.7%), the supplies and tools that they used are in compliance with their body measurements (87.9%), dining hall, changing and rest rooms which are provided by their organization are adequate (80.4%), the size of working area, accordance for purpose, lighting, ventilation and temperature are adequated (85.5%), they have the necessary personal equipments to protect themselves from occupational accidents (79.9%), sufficient security measures for the prevention of occupational accidents are enough (75.3%), all

the necessary measures were taken to be protected from diseases (77.3%), health service that given by occupational physician was found enough (58.2%), they know what should be done in any emergency situation (82.4%). But this was attracted attention that the most of the workers(60%) were unstable to use practically their training easily (Table 3).

Discussion

It was determined that majority of the workers in our study had no accident (78.9%) and the accidents (21.1%) were generally caused by environmental factors (54%). Erkal and Coskuner, (2001) determined that 19% of workers at industrial areas had occupational accidents, Balcı *et al*, (2005) determined that 17% of workers at furniture factories had occupational accidents, Bakar *et al*, (2004) determined that 48.2% of workers had occupational accidents, Karadag *et al*, (2012) determined that 9.5% of workers had occupational accidents and İlhan *et al*, (2006) determined that 26% of workers had occupational accidents. In their study, Aybek *et al*, (2003) found that 6% of technical workers had occupational accidents and the accidents were mostly caused by unsafe behaviors (55.6%). Gecer and Caglayan (2004) determined that students receiving vocational education had occupational accident at the rate of 71.4%, which was a very high rate. Different results regarding the frequencies and reasons of occupational accidents could be associated with the changing characteristics of work and workers.

Additionally, it was determined that 47.8% of the workers using no personal protective equipment had occupational accidents at a significantly higher rate and they had the required personal equipment at institutions to be protected from occupational accidents (79.9%), the safety measures taken to be protected from occupational accidents were sufficient (75.3%), they had the required equipment to conduct the work better (86.7%) and 88.9% of them used these equipments. Similarly, Copur *et al*, (2006) determined that workers had the required personal equipment to protect from occupational accidents (80.3%) at institutions and the safety measures taken to be protected from occupational accidents were sufficient (76.5%). Gecer and Caglayan (2004) found that workers who expressed the necessity of using personal protective materials had fewer occupational

accidents. In their study, İlhan *et al*, (2006) determined that 80.1% of cleaning workers used no personal protective equipment while doing their job. Erkal and Coskuner, (2001) found that 97.7% of workers take precautions to accident. And 86.9% of workers are careful to mix with each other while using the cleaning agent. It is thought that occupational accidents would be encountered at lower rates if trainings on protection from occupational accidents were provided at start of employment and periodically, and a safe working environment was formed.

Enez *et al*, (2014) found no significant correlation between age, educational status, wage, smoking and drinking and occupational accidents. In their study, Gecer and Caglayan, (2004) determined that smokers had higher rates of occupational accidents, whereas those who received training regarding workplace risks had lower rates of occupational accidents. Balcı *et al*, (2005) reported no significant correlation between these variables. In this study, on the other hand, it was determined that male workers and those who received training only at start of employment had more frequent occupational accidents. Additionally, despite being statistically insignificant, those who smoked and drank had more frequent occupational accidents than those who did not, which is an expected situation.

It was found that those who had worked for less than 1 year had occupational accidents at the highest rate (29.2%). In their study, Balcı *et al*, (2005) determined that those who worked for 5 years and above had occupational accidents at higher rates. These results could be associated with inexperience caused by lack of work experience and unnecessary self-confidence caused by abundant work experience.

According to the labor law, the weekly time of working should not exceed 45 hours (Labor Law, 2003). Majority of the workers included in the study 282 workers, (68.3%) worked for 45 hours a week, but a considerable number of them worked for more than 45 hours a week (23%). It was remarkable that the workers had partially knowledge about laws and regulations regarding occupational health and safety (44%), but they had no knowledge about occupational illnesses (36.8%) and had occupational accidents at higher rates. In their studies; İlhan *et al*, (2006) determined that workers worked for 8 hours a day, Bakar *et al*, (2004) found that workers worked for 12 hours a day and Karadag *et al*,

(2012) determined that workers worked for 45 hours a week. Both workers and employers should be informed about the possible negative results of this issue and the related legal regulations.

In the study, it was determined that majority of workers (88.4%) received in-service training and 45.8% received these trainings periodically. It was also found that the workers received in-service training respectively on “cleaning methods” (20.6%), “use of cleansers” (31.2%), “protection from accidents” (67.6%), “hygiene” (20.8%), “maintenance and use of equipments” (57.9%), “infection control” (16.5%), “communication” (23%), “first aid” (55.4%) and “insect control” (11.6%) regarding the occupational health and safety. However, it was remarkable that majority of workers (60%) were undecided about applying these trainings in practice. take

In their study, Erkal and Coskuner, (2001) determined that the workers received training regarding occupational health and safety have had less accidents from the workers not trained. Similarly, 16.5% of take precautions to accident had accidents. 75.0% of not take precautions had accidents. In a similar study, Copur *et al*, (2006) reported that 95.4% of workers received in-service training respectively on “cleaning methods” (88.7%), “use of cleansers” (79.4%), “protection from accidents” (68.1%), “hygiene” (65.3%), “maintenance and use of equipments” (64.5%), “infection control” (60.5%), “communication” (51.2%), “first aid” (37.9%) and “insect control” (22.6%) regarding the occupational health and safety. It was determined that 54.4%, of the trained workers received this training regularly, 25.8% once a month, and 9.7%. at start of employment. İlhan *et al*, (2006) found that 85.2% of cleaning workers did not receive occupational training and 87.4% did not receive occupational health and safety training. In the study conducted by Balcı *et al*, (2005) at a furniture factory in Kayseri/Turkey, 54.8% of workers stated that their workplace offered training on safety. The frequency of receiving occupational training was determined as 45.5% by Kisioglu *et al*, (2004), 83% by Karadag *et al*, (2012). In their studies; Ozcirpici *et al*, (2009) determined that workers received training on occupational risks at 64% of workplaces and Aksoy *et al*, (2009) stated that workers had very low rates of receiving training on occupational

health and safety. In order to bring these results to the desired level, it is required to reveal the training deficiencies of all workers regarding occupational safety and their needs for training of occupational safety, and enable the trainings to be easily applicable in practice.

Examining the views of workers about occupational health and safety; it was observed that they generally agreed with positive views and they mostly stated that their responsibilities concerning their work were defined very well (85.7%), they worked efficiently and coherently with their team mates (89.1%), they had no communication problems with their superiors (79.2%), they had the required equipments to work properly (86.7%), the equipments they used were suitable for their body size (87.9%), they found the refectories, changing rooms and rest rooms, provided by the institution, as sufficient (80.4%), the size, utility, illumination, ventilation, heat and light properties of their units were sufficient (85.5%), necessary precautions were taken for protection from illnesses (77.3%), they found the healthcare services provided by the occupational physician as sufficient (58.2%), and they knew what to do in case of emergency (82.4%). Verbeek *et al*, (2001) stated that satisfaction with occupational health services was 97% and the satisfaction decreased when occupational physicians did not get along with workers. In their study, McGovern *et al*, (2000) stated that 55% of workers were very pleased with occupational health services. Interpersonal aspect and communication of care in workers are among the highly required elements of satisfaction. Motivation-increasing applications of employers have a critical function in encouraging the workers to work willingly (Kahraman *et al*, 2011). Because working in a healthy and safe environment has a number of benefits like increasing the working efficiency of workers, providing their economic independence and work continuation, and increasing the quality of working life (Akbayrak and Emiroglu, 2006; Cheng and Huang, 2011). Additionally, as is in the study of Kaya *et al*, (2011), workplace stress, ergonomic working conditions and workplace satisfaction are all closely related with each other. In their studies, Balcı *et al*, (2005) and Kisioglu *et al*, (2004) determined that almost one fourth of workers thought that their health was negatively affected by work. In the study of Copur *et al*, (2006), the workers mostly agreed

with the statements, “I think that my responsibilities regarding my work are defined well” (95.4%), “I can easily put my trainings into practice” (93.8%), “I have the required equipment to work properly” (91.9%), whereas they rarely agreed with the statements, “I find the refectories, changing rooms and rest rooms provided by the institution, as sufficient” (59.6%), “I find the healthcare services, provided by the occupational physician, at the institution as sufficient” (64.6%). As is understood from the study results regarding the worker satisfaction in occupational health services; it is important for occupational health nurses and team to know what workers think about various aspects of their services. The satisfaction of workers with services is a measurement of care quality and it will provide the necessary feedback for occupational health nurses and team in developing the services according to the preference of workers. Thus, there will be a better care and usage (Beser and Bayık, 2009; Verbeek *et al*, 2001).

Conclusion and Suggestions

As a consequence; it was determined that 21.1% of the workers had occupational accidents. 54% of accidents were caused by environmental factors. Occupational accidents were experienced mostly by male workers (21.9%), rotating workers (56.5%), those using no personal protective equipments (47.8%), those who were trained only at start of employment (30.5%), those who worked for less than 8 hours a day (36.1%), and those who had no knowledge about occupational illnesses (27.6%).

Comparing the occupational health and safety scale and descriptive characteristics; mean scores of the scale were determined to be significantly higher in workers who had less income than expense (26.4 ± 2.6), rotating workers (25.2 ± 3.6), those using no personal protective equipments (26.0 ± 3.7), those who received no in-service training (26.6 ± 3.8), those who worked for less than 8 hours a day (25.3 ± 3.0) and those who had occupational accidents (26.3 ± 3.2).

Additionally, it was determined that 88.4% of workers received in-service training, 45.8% had received these trainings periodically and the field of in-service training usually was “methods of protection from accidents” (67.6%). However, it was remarkable that majority of workers (60%) were had a doubt in putting these trainings into

practice. It was determined that 36.8% of the workers (152 workers) did not have necessary information about occupational illnesses and they were partially (45.5%) (188 workers) knowledgeable with the laws and regulations regarding occupational health and safety. Examining the views of workers about occupational health and safety; they mostly stated, “I work efficiently and coherently with my team mates” (89.3%).

According to these results; it is suggested to regularly provide in-service trainings containing protection and legal dimension regarding occupational accidents and occupational illnesses for workers and made them easily applicable in practice.

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