



## Importance of Professional Occupational Safety And Health Agencies In Occupational Safety And Health Services

**Abstract- Background and Aim:** Professional Occupational Safety and Health Agencies have an important role in conducting occupational safety and health services. The number of these agencies has increased after the Occupational Safety and Health Law is enured (6331). However there is insufficient data regarding the effectivity of these services. Therefore we investigsted this study in order to assess the importance of these agencies from employer perspective. **Methods:** In this cross-sectional study a questionnaire form is applied to employers who volunteered to participate. General characteristics, expectations and considerations about professional agencies are questioned. **Results:** The establishments were mostly service sector and industrial sector with 50 or less employees. Most of the establishments do not have occupational safety and health professionals (approxiamtely 60 percent) and 23,7 % take this service from professional agencies. The employers choose professional agencies because of low cost and efficacy. **Conclusion:** There is still a huge gap for providing occupational safety and health proffessionals. Professional agencies may help fulfilling this need but it is seen that employers still have doubts and questions about these agencies.

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## I. INTRODUCTION

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [1]. In 1950 the International Labour Office (ILO) and the World Health Organization (WHO) gave a common definition for occupational health. The definition states; the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention among workers of adverse effects on health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of workers in an occupational environment adapted to physical and mental needs and the adaptation of work to humans [2].

This is a major problem as working population constitutes a major proportion in the society. The economical, moral and social implications of health of working people is substantial [3].

With the Occupational Safety and Health Act (nr. 6331) in 2012 in Turkey; occupational safety and health has become an important issue and therefore concern has been raised. This legislation forced all employers to give OSH services for all employees. This obligation is regardless of the number of the employees in the workplace [4].

In this period, need for services for this duty have been arised. These services are provided in diverse means and models in Turkey and in the world. In-company or in-plant model; mostly seen in large sclae enterprises and gives multidisciplinary service. Group or Inter-enterprise model; is the joint service of small and medium scale enterprises and usually does not seek profit. The other models are; state reinforced

primary healthcare units, Industry- oriented model, Private health centers (Professional Agencies) and social security models. All of them have their own advantages and disadvantages [3]. In Turkey now there is three models for OSH services. One of them is “Workplace OSH Unit”. This is similar to “in-company” model. Another model is “Joint OSH Units” and this model is similar to Professional OSH Agencies. The third model in Turkey is “Public Health Care Centers”. In this model government reinforced primary health care centers present OSH service [5].

The Joint OSH Units or Professional Agencies are private establishments that give OSH services and provide OSH professionals for workplace. By 2013 there are 884 professional agencies that present OSH services to nearly 9000 establishments. Approximately 4000 occupational safety specialists, 2500 occupational physicians and nearly one thousand occupational nurses are employed in Professional agencies [6]. The main advantage of this model is that they present quick and effective service for the employer. The employer does not have to make any arrangements for this service. The main disadvantage is the Professional agencies present this service from “out of” the company.

The aim of this study is to investigate the importance of “professional OSH agencies” in occupational safety and health services (OSHS). The opinions of the employers about professional occupational safety and health (OSH) agencies are tought to be an important indicator of this subject. Revealing the ideas and remarks of employers about OSH services may contribute reorganising and developing better OSHS systems.

## II. Methods

This is an observational, cross-sectional study.

The study is conducted in 10 different cities in Turkey. Presence of professional occupational safety and health agencies influenced city selection. Small and medium scale enterprises in these cities are chosen randomly. Special location, sector or hazard criteria has not been considered for selection.

A questionnaire form is applied to employers who volunteered for participation. A total of 850 questionnaires are sent to employers and 400 of them are answered.

SPSS package program is used for statistical analysis and chi square test is used to assess statistical significant association.

## III. Results

850 questionnaire forms were sent and 400 of them were convenient for assessment.

Socio-demographic properties of participants showed that; 44 percent of the participants were between 31 to 40 years old. 69,9 percent of the participants were male. The education level of the participants were as follows; 64,2 percent of the participants had undergraduate degree and 28,2 percent had high school degree. Occupation of the participants were diverse but accountants were near the half of all participants (49,2 percent). The occupations of the participants are shown in table 1.

**Table 1. Occupations of Participants**

Occupation	Number	%
Specialist	6	1,6
Accountant-economist	177	49,2
Engineer	32	8,9

Human resources-public relations	34	9,4
Officer	17	4,7
Educator- teacher	8	2,2
Manager	41	11,4
Artificer-tradesman	29	8,1
Technician	9	2,5
Healthcare worker	7	2,0
<b>Total</b>	<b>360</b>	<b>100,0</b>

The general findings about workplaces were consisted of the sector of the enterprise, the location of enterprise, number of workers, accident and occupational diseases records, the state of hiring OSH professional and expectations from them.

The sectors of the enterprises were as follows industrial, service sector and construction with percentages 43,9, 43,3 and 12,8, respectively (table 2).

**Table 2. Sector of Establishments**

Sector	Number	%
Industrial	168	43,9
Service	166	43,3
Construction	49	12,8
<b>Total</b>	<b>383</b>	<b>100,0</b>

The number and gender of employees are shown in table 3. As seen in the table 53 percent of the enterprises had 50 or lower employees. The workplaces settled in various localizations (table 11). Most of them are in organized industrial zones (%32).

**Table 3. Employee numbers**

Number of employee	Male		Female		Intern		Total	
	Number	%	Number	%	Number	%	Number	%
0-25	190	49,5	309	80,9	363	97,6	146	37,9
26-50	47	12,2	34	8,9	3	0,8	58	15,1
51-75	45	11,7	16	4,2	2	0,5	45	11,7
76-100	25	6,5	9	2,4	1	0,3	26	6,8
101 and more	77	20,1	14	3,7	3	0,8	110	28,5
<b>Total</b>	<b>384</b>	<b>100,0</b>	<b>382</b>	<b>100,0</b>	<b>372</b>	<b>100,0</b>	<b>385</b>	<b>100,0</b>

**Table 4. Localization and Number of Establishments**

In Organized Industry Regions (OIR)	124	32,2
Out of OIR and Inside of Municipal Adjacent Area	78	20,3
Out of OIR and Municipal Adjacent Area	35	9,1
In small scale Organized Region	43	11,2
Other	105	27,3
<b>Total</b>	<b>385</b>	<b>100,0</b>

When classified in hazard zones 42 percent of the workplaces are less hazardous, 23,6 percent are hazardous and 34,4 percent are highly hazardous.

The data registries showed that 92,2 percent did not experience an accident with serious injury or death. Only 6 percent have experienced an accident with serious injury or death. This may be due to a selection bias that the companies with awareness of OSH volunteered participation and answered the questionnaire.

Data showed that most of the accidents with serious injury or death are seen in

construction sector with 12,1 percent. Similarly the occupational diseases are mostly seen in

construction sector with 4,1 percent when compared with industrial and service sectors. 4,3 percent of the employers paid compensation for occupational injuries and diseases. This finding is consistent with international and national statistics.

When employment of occupational health and safety professionals is investigated; it is seen that 38,5 percent of the establishments employed occupational physician and 40,1 percent employed occupational safety specialist. Most of the occupational safety specialists were engineers (74,1 percent). Occupational physician aides (occupational nurses and others) are employed with 20,3 percent. Despite the legislation forces all the workplaces to employ an OSH professional, most of the establishments do not correspond this rule. Industrial sector is better than constructional and service sector. This can be



explained by better management organization in industrial sector.

The establishments were investigated if they had their own OSH policy. 57,7 percent of the employers declared that they have, and 16,9 percent explained that they are in preparation. Industrial sector have this policy more than other sectors (service and construction) and the difference is statistically significant ( $p<0,05$ ). This is not an obligatory practice but it is promising that most establishment have their own OSH policy.

The establishments are asked if they have OHSAS 18001 OSH management systems. 38,7 percent of them declared that they use this system. Three sectors have similar results in this issue.

The opinions of employers about the meaning of OSH services are investigated. 51,4 percent of the participants stated its importance to protect the health and safety of employees.

42 percent of the employers stated that they want to present this service on their own (in-house model). 34,7 percent of them prefer to purchase service from professional agencies.

The state of taking OSH services from professional agencies is investigated. 72,8 percent of the participant declares that they do not take service from professional agencies. Although the proportion of taking this services from Professional agencies is low; when compared sectorally, industrial sector takes this service much more than service and construction sector, and the difference is statistically significant ( $p<0.05$ ).

The aim of demanding service from professional agencies is investigated. The factors were diverse but “efficiency” is the most valuable aim (31,1 percent). The expectations of establishments from professional agencies are

diverse but “preventing of occupational injuries and diseases is the prominent element with 66 percent (table 5).

**Table 5 Aim of Purchasing Service from Professional Agencies**

	Number	%
Cost	23	22.3
Efficiency	32	31.1
Easy accessibility	23	22.3
Lack of Personel	5	4.8
Fear of Punishment	17	16.5
Obligation of legislation	7	6.8

The employers are asked about abolition of contracts with professional agencies. 7,8 percent of the establishments have cancelled their contracts due to inefficient service.

The establishments get miscelaneous services from professional agencies. They are shown in table 6.

**Table 6. The Services from Professional Agencies Other Than OSH Professionals**

	Number	%
Measurement	27	26.2
X-Ray	20	19.4
Laboratory	36	34.9
Education	54	52.4
Other	11	10.7

The adequacy of duration of services is questioned; 73,3 percent of the establishments find the duration adequate. The satisfaction from services of professional agencies is invetigated and 77 percent of the employers are contended with the service. When employees are questioned about satisfaction from OHS services 78,4 percent were contended, 17,6 percent have no knowledge about these services.

The employers are questioned about quality of OSH services from professional agencies. 75,7 percent of the employers think that professional agencies work convenient with the legislation.

The contribution of professional agencies to OSH and preventing injuries and occupational diseases is questioned. 87,2 percent of the employers stated that they get concrete and positive contribution. These contributions are summarized in table 7. The specific contribution to OSH is investigated and 82,1 percent appreciate the contribution.

**Table 7. Contribution of Professional Agencies to OSH**

	Number	%
Increase in Knowledge and Awareness	17	44.7
Decrease in Workplace Injuries	13	34.2
Increase in Workplace Safety	3	7.9
Increase in Satisfaction of Workers	3	7.9
Contribution to Development of Establishment	2	5.3
Total	<b>38</b>	<b>100.0</b>

74,4 percent of the employers find professional agencies affordable.

#### IV. Conclusion and Suggestions

At the beginning of the study 850 questionnaire forms has been sent to employers but only 400 of them responded. This shows inadequate consideration of importance of employers in OSH issues. It is understood that most of the establishments have predisposition to

provide OSH services on their own. This may be due to insufficient recognition of professional agencies. The study suggests that most of the companies are settled in organized industry regions so the professional agencies have to be near these regions. Besides the professional agencies would not only support OHS professionals but they would give services as measurement, laboratory, education. The Ministry of Labour should conduct periodic controls of professional agencies and would take measures in order to increase service quality. This kind of investigations have to be conducted periodically because of fast changing structure and demands of the business.

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