

# "İŞ, GÜÇ" ENDÜSTRİ İLİŞKİLERİ VE İNSAN KAYNAKLARI DERGİSİ

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## TARANDIĞIMIZ INDEXLER



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# ÖĞRENCİLERİN İŞ SAĞLIĞI VE GÜVENLİĞİ ALGISI

*Özlem KAYA<sup>1</sup>*

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## ÖZET

İş kazaları ve meslek hastalıkları çalışma hayatının en önemli sorunlarından biridir. Günümüzde, dünya çapında farklı sektörlerdeki birçok işgören iş kazaları ve meslek hastalıkları nedeniyle hayatını kaybetmektedir. Türkiye’de ise iş kazaları ve meslek hastalıkları hala ciddi bir konudur ve yasal düzenlemelerin iş kazalarının önlenmesi ve insanların tehlikelerden haberdar edilmesi açısından yeterli olmadığı açıktır. Bu bakımdan tüm sektörlerde mevcut tehlikeler bakımından daha fazla eğitim ve bilinç oluşumu oldukça önemlidir.

Birçok sektörde yaşanan iş risklerindeki değişmelere rağmen, işgörenlerin iş kazaları ve meslek hastalıklarının önlenmesi noktasında belirli bir bilgi ve bilinç düzeyine sahip olmaları beklenmektedir. Bu noktada araştırmanın amacı, Türkiye’de özellikle sanayiye ara insan gücü yetiştiren Teknik Bilimler Meslek Yüksekokulu öğrencilerinin iş sağlığı ve güvenliği algısının belirlenmesidir. Bu amaçla kullanılan formlar aracılığıyla 2017 yılında aktif öğrenci durumunda olan 448 öğrenciye güvenlik algılarını belirlemek için güvenlik eğitimi, güvenlik iletişimi, güvenlik bilinci ve kadercilik ölçeği uygulanmıştır. Yapılan analizler sonucunda, öğrencilerin iş sağlığı ve güvenliği algısı ortaya konulmuş, sağlıklı ve güvenli bir çalışma ortamı yaratma ve öğrencilerin iş sağlığı ve güvenliği konusundaki farkındalığını daha da geliştirme yönünde düzenlemelere ışık tutacak ve aydınlatacak öneriler geliştirilmiştir.

**Anahtar Kelimeler:** Güvenlik farkındalığı ve eğitim, güvenlik algısı, iş sağlığı ve güvenliği

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## OCCUPATIONAL HEALTH AND SAFETY PERCEPTION OF STUDENTS

### ABSTRACT

Work accidents and occupational diseases are one of the most important problems of professional life. Today, many workers in different sectors around the world are losing their lives due to work accidents and occupational diseases. Work accidents and occupational diseases are still a serious issue in Turkey, and it is clear that legal regulations are not enough to prevent work accidents and to inform people about the hazards. In this respect, education and creating awareness is of vital importance regarding the existing hazards in all sectors.

Despite the changes in occupational risks in many sectors, workers are still expected to have a certain level of knowledge and awareness in terms of prevention of work accidents and occupational diseases. At this point, the aim of this research is to determine the occupational health and safety perception of the students of Technical Sciences Vocational School in Turkey, which trains intermediate staff for industry. For this purpose, safety education, safety communication, safety awareness and fatalism scales were used to determine the security perceptions of 448 students who were active students in 2017. As a result of the analyses, the students' perception of occupational health and safety was elaborated and recommendations were made to create a healthy and safe working environment and to illuminate and enlighten the regulations for further development of students' awareness on occupational health and safety.

**Keywords:** Safety awareness and education; security perceptions; occupational health and safety

## EXTENDED ABSTRACT

**H**uman beings are still the most valuable aspect of manufacturing; however, they encounter various problems in the workplace due to substantial technological developments. These problems pose threats, firstly to human health, but also to the long-term reliability and goodwill of companies.

Studies executed to solve the problems arising from such developments in workplaces have contributed key factors to the area of occupational health and safety.

Occupational accidents cause considerable social and economic losses in both developed and developing countries. Despite all the precautions taken to avoid occupational accidents, they continue to exist as a major problem, presenting one of the greatest obstacles to social and economic development and social welfare on a global scale.

As a result of the problems experienced in this context, the role of education has been conclusive and serious actions were taken immediately. Education, as a process in changing behaviours in the lives of individuals, is a very important instrument for the prevention of occupational accidents and diseases. The education in vocational-technical schools is a preventive method for occupational health and safety, by providing individuals with institutional and practical information that help them perform their job and profession with success. The role of education in occupational health and safety is huge. Most of the occupational accidents are caused by human behaviour. The most important reason of occupational accidents and diseases caused by human behaviour is the lack of awareness and education.

If there hasn't been any training about occupational health and safety during individuals' process of education, the employer has to reassure this training, including specific directives relating to each worker's work place and definition, in order to provide and sustain occupational health and safety in workplace.

Safety trainings that focus on behaviors have an important place in the development of a safety culture. The educational programs should focus on behaviors and their objectives should be defined in accordance with the expectations and the enterprise's specific needs, so that this culture can result in safe behavior at work. These behaviors need to be supported by the administration so that the trainings about the development of a health and safety culture works, and that safe exercises are observed.

In this context, the aim is to protect individuals constantly, to help them avoid unsafe behaviors and to create an atmosphere where they are aware of the risks, by developing a culture of safety in a positive way.

The purpose of this study is to measure whether the occupational health and safety training for students studying in Vocational High Schools is sufficient, specifically in terms of the technicalities of industries. A survey was conducted to determine the occupational health and safety perceptions of students studying different vocational programmes. The aim of the study is to support the students, in terms of health and safety, when they start working. As such, determining the students' perceptions of occupational health and safety before commencing a period of employment is seen as pivotal.

Students studying at the Vocational School of Technical Sciences; Uludag University and Hitit University completed a survey, which was two-fold in its measurement approach, occupational health, and safety perceptions and fatalism factors. There were 448 participants in total.

According to the results obtained in this study, as the level of safety training for the students increases their safety awareness also increases. Safety awareness and communication are higher when students are studying in vocational schools and working simultaneously. Under these circumstances, it can also be said that attending occupational safety training before starting in the workplace has a positive effect on forming safety perceptions in students.

# 1. INTRODUCTION

Occupational safety and health education gains importance every day due to the fast hi-tech developments and business demands. Thus the individuals facing huge risks and danger in daily working life need adequate training on occupational safety and health in order to raise awareness about the same. Occupational safety and health trainings make the individuals competent enough to consider their safety and health during work, develop positive attitudes and enhance their skills and knowledge (Bahari, 2011).

Occupational health and safety education is considered to be one of the tools of intervention used by human resources professionals in order to achieve positive results (e.g. reducing accidents, incidents, and near-misses) at work.

Occupational safety and health education refers to a planned activity that aims to achieve specific goals of occupational safety and health, to raise awareness about safe behaviour and to impart new essential skills and knowledge to individuals. There are some particular types of trainings on occupational safety and health for workers, such as first-aid training, fire extinguishing, manual loading and discharging, and working with chemicals.

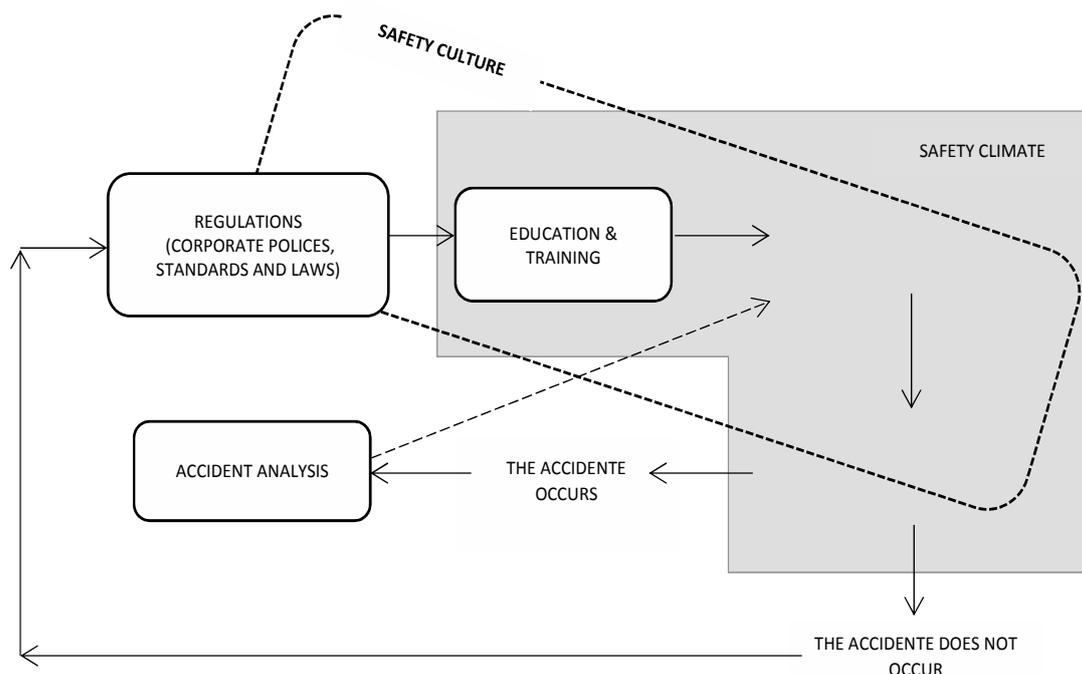


Figure 1. Occupational safety and health cycle (Sanchez, Pelaez, Alis, 2017; Carvajal, 2008)

Recently, much importance has been given to building a culture of awareness about safety and prevention on an international basis. In this framework, "training of occupational safety and health" has been an important stage of application. Such training enable to bring about behavioural changes by practically applying the acquired knowledge and thus to develop proper behaviour models for occupational safety and health (Kilkis and Demir, 2012).

Cohen and Colligan who have conducted an exhaustive study on occupational safety and health education listed its objectives in this way: Giving more information to workers about danger at work, causing behavioural change, creating harmony for future safety actions and reducing injuries, diseases, and disasters (Cohen and Colligan, 1998).

World Health Organization (WHO) describes health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. In these terms, the notion of "occupational health" should be considered in an extensive framework. Joint ILO (International Labour Organization)/WHO Committee on Occupational Health defines its objective concerning occupational health as follows (Alli, 2001): "Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from 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 the worker in an occupational environment adapted to her/his physiological and psychological capabilities; and, to summarize, the adaptation of work to man and of each man to his job."

ILO aims to regulate the ways of prevention while raising awareness about accidents at work, professional diseases, the extent on the impact of deaths via programs and agreements that it proposes. In its agreement no. 155 (article 14) it points out to the necessary precautions for developing the education and training in each level, addressing to every worker's educational needs, in order to solve the problems related to occupational health and safety. Through this objective it proposes (article 5) "training about the motivation, qualification and education for every worker on all levels, in order to reach a suitable degree of health and safety" and (article 19) "training for workers and their representatives about occupational health and safety".

"Occupational health and safety" is a dynamic concept. It depends on the conditions of work and all risks and conditions referring to the health and safety of the individuals (Saglam, 2009).

Labor Law no. 4857, Occupational Health and Safety Law no. 6331 and some directives related to these laws, all made in the direction of European Union (EU) legislations, include very important regulations about this subject (Esin, 2005). The 17th article of this law contains a chapter entitled "Training of workers". In this context, there are some regulations provided by the "Directive About the Fundamentals and Procedures of Occupational Health and Care of Workers' Training", which was made by the Ministry of Labour and Social Security and came into force after being published in the Official Gazette with the date 15.05.2013 and number 28648. In the 6th article of the directive, there are provisions about the issues of occupational health and safety education and the conditions and periods of renewal. The issues relating to education are detailed as indicated below:

(1) General Issues: a) Information about employment legislation b) Legal rights and responsibilities of the workers c) Hygiene and order of workplace d) Legal consequences of occupational accident and professional disease

(2) Health Issues: a) Reasons of occupational diseases b) Principles of prevention and application of preventive techniques c) Biological and psychosocial risk factors d) First-aid

(3) Technical Issues: a) Chemical, physical and ergonomic risk factors b) Manual lifting and carriage c) Protection from flames, explosion and fire d) Safe usage of work tools e) Carriage via tools with screens f) Electricity, its dangers, risks and precautions g) Origins of occupational accidents and implementing protection principles and techniques h) Signalization of safety and health i) Using personal protection equipment i) General rules of occupational health and safety and culture of safety k) Evacuation and rescue (Supreme Court, 9th Civil Dept.).

Human beings are still the most valuable aspect of manufacturing; however, they encounter various problems in the workplace due to substantial technological developments. These problems pose threats, firstly to human health, but also to the long-term reliability and goodwill of companies.

Studies executed to solve the problems arising from such developments in workplaces have contributed key factors to the area of occupational health and safety (Onur, 2015). There is a significant standard of occupational health and safety management system, concerning the achievement of aims and expected benefits. Occupational Health and Safety Standard known as OHSAS 18001 (Occupational Health and Safety Assessment Series) which was published in 1999 by British Standards Institution (BSI) was published by Turkish Standards Institution (TSE) with the name TS 18001 in 2004 and became a standard that can resolve problems in occupational safety issue with time (TSE, 2009).

OHSAS 18001 includes the organizational structure, planning actions, responsibilities, applications, procedures, processes and resources that aim to develop an occupational health and safety policy for the enterprise, as a part of the entire management system that facilitates the management of risks about occupational health and safety, linked with the business of the enterprise (Wilkinson and Dale, 2002: 286).

Occupational accidents cause considerable social and economic losses in both developed and developing countries. Despite all the precautions taken to avoid occupational accidents, they continue to exist as a major problem, presenting one of the greatest obstacles to social and economic development and social welfare on a global scale (Akalp and Aytac, 2005).

Occupational health and safety cannot be considered a mere technical and medical study. Many issues such as nutrition and sheltering opportunities, habitability of the natural environment, job security, and workers' rights to unions, directly affect their health and safety. The health of workers should be approached in a way that embraces all blue and white-collar workers, permanent staff, subcontractors, and workers in the public sector. First and foremost, workers have fought for better conditions over the last 200 years, which has been effective in the development of occupational health and safety awareness and studies. Furthermore, factors such as urbanization, which is a result of economic and social industrialization, have led to an increase in the number of people affected by occupational accidents and diseases. This has been a consequence of the move to a nuclear family structure, whereby with the breakdown in community, a family may face poverty as a result of the primary bread-winner becoming disabled. Additionally, there is an emotional effect on people who become disabled, which can also be associated with insecure working conditions, leading to alienation in the workplace and a decrease in productivity.

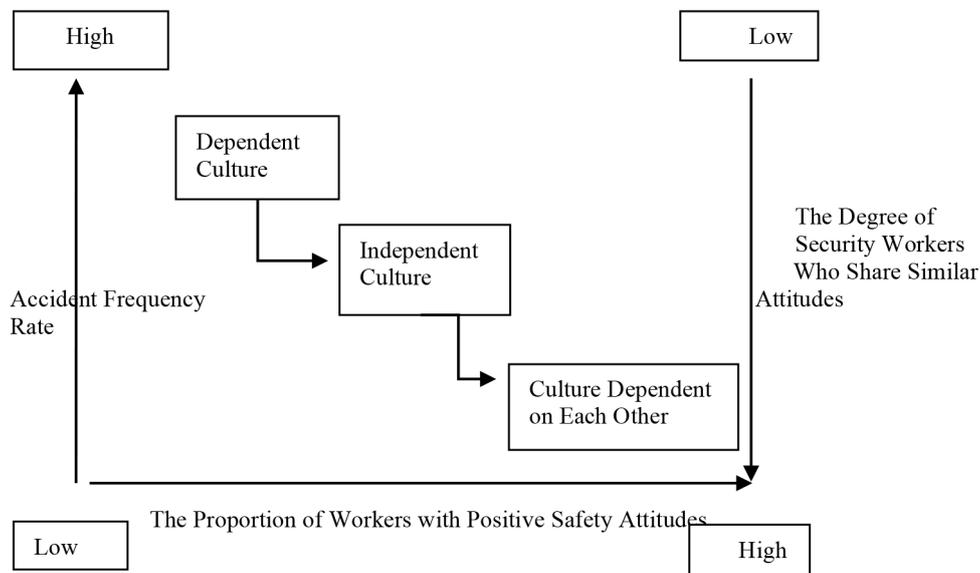
As a result of the problems experienced in this context, the role of education has been conclusive and serious actions were taken immediately. Education, as a process in changing behaviours in the lives of individuals, is a very important instrument for the prevention of occupational accidents and diseases. The education in vocational-technical schools is a preventive method for occupational health and safety, by providing individuals with institutional and practical information that help them perform their job and profession with success. The role of education in occupational health and safety is

huge. Most of the occupational accidents are caused by human behaviour. The most important reason of occupational accidents and diseases caused by human behaviour is the lack of awareness and education (Guler, 2011).

If there hasn't been any training about occupational health and safety during individuals' process of education, the employer has to reassure this training, including specific directives relating to each worker's work place and definition, in order to provide and sustain occupational health and safety in workplace.

Employers must provide workers with health and safety training, which should include information and instructions specific to the individual workplace, and the kind of work being conducted, to ensure and sustain the health and safety of workers. This training is of particular importance before the commencement of work, in job changes, and with the introduction of new work equipment and new technology. Training should be revised in accordance with the changing and emerging risks and should be repeated periodically when necessary (TMMOB, 2011: 10).

What can be done specifically, to avoid occupational accidents, and to minimize the severity of accidents that do occur? Primarily, workplace leaders need to take preventive measures before occupational accidents occur. The most significant portion of occupational accidents occurring (approximately 95%) are because of humans, making it essential to handle the human factor more comprehensively. One of the notions, which has shown up, particularly in recent years and the importance of which is continually stressed in preventing occupational accidents, is the development of a "security culture"; when the human factor is taken into account (Dursun, 2012).



**Figure 2. Levels improving security culture**  
(Fleming and Lardner, 1999, Trans. Demirbilek, 2008: 7).

There are many definitions of security culture. One that is particularly valid is the statement that the norms, beliefs, roles, attitudes, and practices belonging to the organization are applicable to reducing the probability that workers will encounter, or be exposed to, dangers in the workplace (Vredenburg, 2002: 260; Cox and Cox, 1991).

According to the definition by International Atomic Energy Agency, the culture of occupational health is a whole that includes values, perception, attitude, habitudes of thinking, competency and behavior patterns of the individuals and groups who decide the sufficiency, type and sustainability in use of occupational health and safety programs of the organization (Demirbilek, 2005).

Safety trainings that focus on behaviors have an important place in the development of a safety culture. The educational programs should focus on behaviors and their objectives should be defined in accordance with the expectations and the enterprise's specific needs, so that this culture can result in safe behavior at work. These behaviors need to be supported by the administration so that the trainings about the development of a health and safety culture works, and that safe exercises are observed (Serifoglu and Sungur 2007: 15).

Accordingly, security culture motivates more reliable behavior by focusing the attitudes and behaviors of the workers on safety and bringing the organization an identity of commitment to safe workplace practices. Furthermore, it provides defining features, such as the workers' awareness and perceptions of the dangers in the correct way, such as using the appropriate protective materials, establishing security committees and giving security recommendations.

As a healthy, productive and highly motivated labor force is the main factor in terms of the social and economic future of a country, businesses should take the necessary precautions regarding prevention of hazards at the workplace or protecting the employees against these hazards. Additionally, it is needed to take the steps that are necessary for improvement of the existing health statuses of employees and form an understanding and awareness that support workplace health and safety with priority. With the purpose of being able to effectively manage workplace safety, development of a workplace safety culture in businesses is highly important for these reasons (Bayraktaroğlu et al., 2018).

In this context, the aim is to protect individuals constantly, to help them avoid unsafe behaviors and to create an atmosphere where they are aware of the risks, by developing a culture of safety in a positive way.

## 2. Methodology

The purpose of this study was to measure whether or not the workplace health and safety course was adequate for students of textile - garment programs at Vocational Schools of Higher Education which train technicians especially for the industry who were enrolled in this course, as well as determining their perceptions of workplace health and safety. This way, it was aimed to support their healthier and safer employment in their work life by determining their levels of perceptions on workplace health and safety before they graduate.

### *Working Group*

Students studying at the Vocational School of Technical Sciences; Uludag University and Hitit University completed a survey, which was two-fold in its measurement approach, occupational health, and safety perceptions and fatalism factors. There were 448 participants in total.

### *Data Collection Tool*

The questionnaire used to collect the data was translated into Turkish by Demirbilek (2005). It was formed using the version updated by Dursun (2011), the questionnaires of which a reliability study has been executed. The first part of the questionnaire consisted of open-ended questions, which included demographic information. The second part was the perception scale, which was used in Geller's study (1996) for determining the perception and awareness of the students, with respect to occupational safety. The third part involved a scale developed by Rundmo and Hale (1999), which consists of six questions and evaluates the fatalistic beliefs of the students. A safety communication scale was developed for the fourth part, devised from a study by Neal, Griffin and Hart (2000) and was used to

determine the communication levels relating to occupational safety. The occupational safety training scale used by Weinstein (1997) and Vredenburg (2002) made up the last part.

Analysis of the data took place with the use of statistical packages. Cronbach's Alpha, which is the result of a reliability test of scales used for analysis, is favored by social sciences. The table belonging to the values of Cronbach's Alpha is as follows:

**Table 1. The values of Cronbach's Alpha**

Scale	The Values of Cronbach's Alpha
Fatalism	,743
Safety Awareness	,748

### 3. Findings

As shown in Table 2, the analysis group comprised 84% and 16% females and males, respectively. When evaluated in terms of age distribution, it was concluded that 23% of participants were 20 years old at the time of the survey, 21% aged 19, 19% aged 21, and 17% aged 18. Although their age range was low, the participants had work experience through internships or on-the-job training.

**Table 2. Gender and work experience distribution**

Gender	f	%	Work Experience	f	%
Female	375	<b>83,7</b>	Yes	363	<b>81,0</b>
Male	73	16,3	No	85	19,0
<b>TOTAL</b>	448	100,0	<b>TOTAL</b>	448	100,0

Of the sample, 60% were sophomores and 40% were freshmen. It can be seen that a high percentage of the 448 participants (81%) gave the answer of "yes" to the question "Do you have any work experience?"

Considering the fields of work and departments of the participants, the finding that they were working in the field of textile - garment and the fact that this sector is one of the top two sectors in Turkey which are developed supported the situation in terms of employment (Kaya, 2011).

**Table 3. The distribution of near-miss dangerous occurrences and having occupational accidents**

The Distribution of the Near-miss Dangerous Occurrences	f	%	Having Occupational Accidents	f	%
Yes	211	47,1	Yes	77	17,2
No	237	<b>52,9</b>	No	371	<b>82,8</b>
<b>TOTAL</b>	448	100,0	<b>TOTAL</b>	448	100,0

When Table 3 is examined, it can be seen that 83% of the students have not had an occupational accident. This situation could be explained by the fact that the participants were new to the workplace and as such, do not have much work experience. More specifically, according to the results of

the survey, about 61% of the students stated that they had 1–3 year's work experience. Almost half the students (47%) gave the answer of "yes" to the condition of a near-miss dangerous occurrence in daily life. Although they are accidents, with respect to their occurrences, it is a fact that near-miss dangerous occurrences, in which there were no injuries, losses or damages, should be taken seriously when examined in terms of these results. It is clear that worse accidents could potentially occur if this data is ignored and the necessary training and support is not provided.

In the next phase of the study, correlation analysis was carried out to determine whether there was any relationship between safety communication, safety training, and safety awareness. Correlation analysis is a statistical method used to test the linear relationship between two variables, or the relationship of a variable with two or more other variables and to measure the degree of this relationship, if one exists.

**Table 4. Correlation analysis between safety communication, safety awareness and fatalism variables**

	Safety Training	Safety Communication	Safety Awareness
Safety Communication	,035	1	
Safety Awareness	,714(**)	,077	1
Fatalism	,013	,088	,015

\*\* Correlation is significant at the 0.01 level (2-tailed).

When Table 4 is examined, it can be seen that there is a strong positive relationship between safety training and safety awareness. In other words, when training is undergone on the subject of safety, there is an increase in safety awareness. Education is undoubtedly an important tool for avoiding occupational accidents and diseases. Education is a protective method in terms of occupational health and safety, providing individuals with the necessary theoretical and practical information to fulfill their workplace duties and responsibilities of their professions successfully. As such, the role of education is highly significant in terms of occupational health and safety. Most occupational accidents which occur arise from human behavior and error. Changing human behavior can only be achieved by raising awareness with valid and reliable training. Accordingly, when comprehensive training is provided on the subjects of occupational health and safety, the awareness of individuals increases, which in turn, supports the avoidance of occupational accidents.

Stepwise regression analysis was carried out to measure the relationship between the different scales, as shown in Table 5. The purpose of this section is to examine the effect of safety training on safety awareness.

Regression analysis was carried out to determine whether there is a relationship between safety awareness (the dependent variable) and safety training (the independent variable) and to determine the extent of such a relationship.

The results of the Stepwise Multiple Regression Analysis indicate that 51% of the change in the dependent variable is explained by other factors incorporated into the model. In other words, Table 5 indicates that safety awareness is in a significant relationship with safety training ( $p < 0.05$ ). This indicates that the most important variable having an effect on safety awareness is safety training.

**Table 5. The result of the stepwise multiple regression analysis**

<i>Independent Variable</i>	<i>Dependent Variable</i>	
	<i>Safety Awareness</i>	
<i>Safety Training</i>	$\beta$	t
(Constant)	1,778	20,370**
Safety Training	,714	21,559**
F	464,783**	
R <sup>2</sup>	.510	

\*\*p&lt;0.01

As also emphasized by Sivrikaya and Üzümlü (2018), for workplace health and safety, it is highly necessary to provide safety training as a course in all stages of education. Increasing the awareness on workplace safety and health and providing the relevant subject as a course for making it possible to learn about the rights and freedoms of individuals are issues that are supported as appropriate decisions not only individuals, but also businesses and the society.

Yılmaz (2007) and Ekemen (2006) have stated that there are various aspects to occupational health and safety. However, three important aspects stand out. These are: expansion of training, starting from primary school to social awareness, raising the levels of training applied in workplaces, and the training of occupational safety specialists. It would be reasonable to expect that occupational accidents decrease if there is an increase in labor quality. The existing health-security dangers for workers in workplace environments and conditions, and the subject of necessary training with the aim of avoiding risks that arise from these dangers, constitutes an important step in accident prevention; a process accepted all over the world.

#### 4. Conclusion and Discussion

As indicated by Turan and Muezzinoglu (2006), the understanding of occupational health and safety shall not be compensating but preventive; not reactive but proactive. In this sense the main philosophy of the new approach to occupational health and safety is to evaluate risks at work, to consult employees and make them participate, to provide expertise, to inform employees about the dangers at work, to give training to employees and to raise awareness about protection and prevention.

Occupational accidents and diseases are generally caused by lack of education, careless behaviors and professional incompetency. Occupational health and safety education is an effective method for avoiding occupational accidents, injuries and diseases.

The consequence of occupational health and safety training for all workers is the increase in knowledge and skills; unsafe behaviors are replaced with reliable ones, workers gain confidence from knowing the risks associated with the jobs they do and consequently they can do their jobs more safely. When workers apply the knowledge and skills they have obtained through occupational health and safety training, occupational accidents and diseases decrease and the cost associated with losses falls.

The notion of security culture should inherently begin with the family, to establish the formation of safe behaviors. Security culture should be adopted by workers who handle business culture, society and family cultures together, in forming reliable behavior awareness in workers. Workers who have security

culture understand that they can refuse to work in situations where they see risks and they themselves play a role in providing the measures necessary for safety. Well trained workers understand the consequences of unsafe conditions and will therefore stay away from this kind of work, as they are aware that they would not be able to work and earn money in the event of permanent disability.

However, the establishment of a health and safety culture within companies is not sufficient alone. Ideally all levels of society would be aware of this kind of culture. Therefore, permanent measures relating to this subject, and the change in mentality required, can only be ensured with the active participation of all stakeholders of occupational health and safety; workers, employers, unions, parties of state and society in general.

It is necessary that the understanding of "health and safety first" be adopted by companies so that all aspects of work and life function more effectively, in terms of both workers and businesses, and that the sustainability of this understanding should be ensured. The notion of occupational health and safety should be a priority for not only enhancing the welfare levels of companies but also other countries. Vocational and technical training is vital, given the increasing industrialization of other countries. The students who graduate from these institutions need to receive sufficient training, so as to develop a security culture before joining the workforce.

47% responded as 'yes' to their experience of almost being subjected to a hazard. Therefore, although such cases are accidents in terms of their form of occurrence, it is a fact that almost being subjected to a hazard, where no injury, damages or harm takes place, is also a case that should be taken seriously. In this sense, it should be ensured that potential risks are known beforehand and accidents are prevented by receiving the necessary training.

Another result of the study was that the most important variable influential on awareness for safety was safety training.

Moreover, considering the dimensions that are important in forming a safety climate, or in other words, the factors that affect the perception of workplace health and safety, it may be stated that dimensions such as safety communication, safety management, individual responsibility, safety standards and goals, individual participation, accountability of the management and fatalism were also effective. These findings reveal the fact that education has and should have an important role in creating a safety climate.

Unsafe behaviors can be avoided to a certain extent, by giving vocational trainings and occupational health and safety trainings to students. In these trainings, they should be informed about the policy of occupational safety and the directive prepared accordingly and also about the possible risks that can occur in working place. The students should be informed about possible occupational diseases; precautions to avoid them and the supply, use, conservation and protection of the tools used in the working place as well. They should also receive instructions about the behaviors to avoid regarding the vehicles and about how to do the work. Imparting them training on safe work practices may help prevent accidents. Providing a positive health and safety atmosphere, as a precondition for understanding health and safety, can only be possible in the context of culture agreed and adopted by every individual for all works.

Some issues that can be suggested to a society for increasing occupational health and safety as well as positive understanding, expectations and requirements are indicated below:

- Education must be given toward creating and developing safety culture to all sections of society.

- The schools should be provided with trainings oriented toward understanding individual health and improving related behavior patterns.
- Fatalist approaches like "nothing would happen to me!" must be eradicated by the public.
- By increasing the quality of vocational and technical education, more importance must be given to the subject of work health and safety.
- Safety culture and awareness must be increased all over the society.
- It is necessary make efforts towards creating "Safety Culture" in the society which increases national awareness level.
- Permanent precautions and the change of mentality can only be attained by the active participation of partners on work health and safety like educational institutions, employees, employers, unions, government and society. Therefore it is necessary that all sides should participate.
- Work health and safety education must be unified with all educational stages starting from primary education until the finish of the university education and later on it must continue at the workplaces.

According to the results obtained in this study, as the level of safety training for the students increases their safety awareness also increases. Safety awareness and communication are higher when students are studying in vocational schools and working simultaneously. Under these circumstances, it can also be said that attending occupational safety training before starting in the workplace has a positive effect on forming safety perceptions in students.

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