Scholars Journal of Arts, Humanities and Social Sciences

Abbreviated Key Title: Sch. J. Arts Humanit. Soc. Sci. ©Scholars Academic and Scientific Publishers (SAS Publishers) (An International Publisher for Academic and Scientific Resources) ISSN 2347-5374(Online) ISSN 2347-9493(Print)

DOI: 10.36347/sjahss.2018.v06i09.015

Occupational Health and Safety in Vocational Education: An Example of Food and Beverage Services Industry

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Article History *Received:* 12.09.2018 *Accepted:* 22.09.2018 *Published:* 30.09.2018



Abstract: Students enrolled in schools where technical and vocational education is provided, potentially constitute an important workforce for the future. Therefore, the fact that students are well-equipped in all respects and develop a perspective on safety culture is an important aspect for the country's economy and business efficiency. The subject of the present study includes students studying at the Food and Beverage Services Department in Vocational and Technical Anatolian High Schools. The objective of the present study is to identify the problems students encounter with regard to their perceptions of safety culture and occupational health and safety. Findings have demonstrated that students studying in the Department of Food Beverage Services where they do their internship. Such problems can be solved by guiding students to build a strong safety culture and providing them with a systematic education on occupational health and safety at each educational phase starting from preschool. **Keywords:** vocational education, vocational education and occupational health and safety.

INTRODUCTION

"Occupational safety" is referred to as a series of precautions that need to be taken in order to foster a safe working environment where employees are prevented from work-related diseases and accidents. The main function of occupational health and safety is to preclude work-related accidents and diseases. "Occupational Health and Safety" means carrying out systematic and scientific activities in the workplace to improve the working environment and to protect employees from both elements potentially harmful to their health and any hazards that may occur during work.

The main focus in occupational health is on the following three different objectives:

Protection of Employees

- Providing a healthy and safe working environment,
- Protecting employees from health and safety risks arising from the working environment,
- Ensuring and improving health, safety and wellbeing of employees.

Protection of Businesses

• Identifying in advance accidents and unwanted incidents and taking necessary precautions accordingly, thereby preventing the occurrence of potential direct and indirect costs and damages.

Protection of Production

• Ensuring the continuation of production,

• Elevating efficiency.

In other words, the objective of occupational health and safety is both to protect individuals from hazards, which often manifest themselves in forms of accidents and workplace diseases that threaten the right to life, the fundamental right of individuals, and to eliminate or to minimize harmful elements. Moreover, occupational health and safety aims to detect threats timely and to reduce to minimum the adverse impacts of unpreventable incidents; in short, to promote a safer working environment [1].

Occupational health and safety intends to ensure the happiness of employees, protecting them from hazards that appear as accidents or workplacerelated diseases, minimizing or eliminating the impacts of harmful elements and ensuring their physical and psychological well-being, and providing them with a high standard of living.

Official records specify that approximately 270 million people die each year due to occupational accidents, 160 million people suffer from work-related diseases and 1,2 million employees lose their lives annually. Occupational accidents in the world and in Turkey appear to be a very serious problem. Turkey ranks first in Europe and third in the world in terms of

occupational accidents. Occupational accidents still remain an important problem in Turkey. Hundreds of thousands occupational accidents occur each year. These result in hundreds of deaths and injuries as well as serious financial losses. Therefore, priority should be given to security precautions with a view to preventing occupational accidents. It should be kept in mind that prevention is more economical and humanitarian than compensating losses [1]. According to data revealed by the Social Security Institution (SII), 286.068 occupational accidents occurred in Turkey in 2016 [2].

Occupational accidents lead to serious financial losses and cause thousands of people to lose their lives or to become permanently disabled. Negative effects of occupational accidents and diseases on employers, families, employees and country's economy are too serious to be underestimated. Allowances for permanent or temporary incapacity for work, treatment, compulsory and funeral expenses, death benefit pensions, social assistance raises, and administrative expenses allotments constitute the total expenditure for all items of an insured employee who experiences an occupational accident or disease. Though a common issue of all countries, occupational accidents can be reduced to a certain degree provided that necessary precautions are taken. Countries which remain insufficient in taking this type of precautions are more affected by such accidents [3].

The fact that technology advances and changes at an unprecedented pace has raised the need for qualified workforce. Occupational health and safety, which is an interdisciplinary science, has nowadays become an independent realm of science. The core objective of occupational health and safety is to promote a healthier and safer working environment in the light of scientific data. Occupational health and is directly affected by technological safety developments. Therefore, it is essential for businesses to dynamically renew themselves in accordance with new technological advancements. The reality that human factor is the most important triggering factor of occupational accidents highlights the significance of occupational health and safety trainings [4].

Vocational and technical high schools raising intermediate employees for almost all industries highly contribute to fulfill the need of businesses for qualified workforce. While entering business life, students having developed a perspective on security culture will not abandon the habits they adopted at school. For this reason, raising awareness about occupational health and security among students will contribute to the prevention of occupational accidents and diseases.

Occupational Health and Safety in Vocational Education

The Ministry of National Education and the Directorate General for Vocational and Technical

Education bear the responsibility of vocational education in Turkey. Vocational and Technical High Schools conduct various vocational and technical education programs designed for 9th to 12th grade students. These high schools constitute 43% of the present education system and over 1 million students receive education in 3681 fields of vocational and technical education. Along with machinery, automotive and electronics, these fields also comprise the following institutions: Tourism High Schools, Fine Art High Schools, Communications High Schools and Health Professions High Schools. As part of general education, students, starting from the 9th grade, begin to take vocational majors in addition to courses such as mathematics, physics, history etc [5]. Students attending skill trainings are provided with an "occupational accidents and diseases insurance" against work-related accidents that may happen within working hours. This insurance serves in a way as a health insurance but is only valid in return for work. Students, however, are not provided with a social insurance payment that could be added to their future social security. Depending on this, students are in a sense covered with an insurance that only saves the day and work for symbolic payments at real workplaces together with real employees and bosses. This type of insurance protects students only to a limited extent.

While the majority of students start to work in relevant lines of work after graduation, a certain number of them opt for university education. During university, students are provided with limited information on occupational health and safety in their vocational majors. Nevertheless, a separate course on occupational health and safety is not offered herein. The high number of occupational accidents in Turkey indicates that students' perception of safety culture failed to reach the desired level.

Potential hazards and risks within each line of work can be eliminated using the opportunities brought by recent scientific and technological advancements. Similarly, occupational accidents and diseases can be prevented promoting healthy and safe working environments. Important laws on increasing occupational safety precautions have recently been enacted in Turkey. Taking into account risks and hazards that may potentially occur during businesses' production of goods and services, the Ministry of Labor and Social Security published a legal notice on Workplace Occupational Health and Safety Related Hazard Classes. This notice categorizes hazard classes as "very hazardous" (Class A), "hazardous" (Class B), and "less hazardous" (Class C). According to this notice, businesses that undertake the production of all types of food and accommodation facilities such as hotels etc. are categorized as "less hazardous" (Class C) [6].

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The food and beverage services industry is a broad industry that covers both businesses such as restaurants which undertake the production of all types of food and beverage and accommodation businesses such as hotels. Moreover, the food and beverage services industry require intense efforts and the number of employees recruited herein is high. As a natural outcome of this situation, various risks are involved. Tourism sector has become more and more important, evolving into one of the largest industries for world economies. Competition between countries is progressively climbing within the international tourism market [7]. A total of 2 million 210 thousand employees have been recruited in Turkey's tourism sector in the last decade. In the same period, total employment share of tourism sector has generally been 8%. Estimates are that the total employment number of the tourism sector will reach 2 million 817 thousand in 2025 [8].

Even though accommodation and food facilities are positioned in less hazardous class, data for 2016 show that 4% of 5397 thousand employees ages 15 and above experienced workplace related health problems or accidents. This proportion shows the number of people registered in any health institution or occupational diseases hospital. The distribution of child worker deaths according to lines of work is as follows: agriculture (51%), construction (12%), metal (8%), commerce (7%), accommodation (4%), food (4%), textile (3%) and other lines of work (11%) [9].

Depending on the general characteristics of food and beverage services industry in Turkey, the workload is heavier during seasonal periods especially around holiday and summer time. Employees working in this industry suffer from the following problems throughout these specific periods: They undertake a great variety of work but are not covered with any insurance or assurance, being required to work at unusual working hours such as weekends or nights and obligated to work in a field other than their field of expertise. Due to the reasons mentioned above and in respect to occupational health and diseases, tourism is a substantial sector that needs to be attached importance to. It is true that work-related accidents and occupational diseases are more likely to occur in the industry sector than in the service sector. However, this matter should not be neglected in the tourism sector. In work-related accidents order to preclude and occupational diseases, safety culture has to be internalized and the mentality "nothing can happen to me" has to be overcome. The Ministry of Labor and Social Security identified the risks present in the food and beverage services industry that comprises businesses such as restaurants, bakeries etc.

Risks present in the working environment are as follows:

- Sharp tools (such as knives, choppers etc.)
- Hygiene

- Electricity
- Tools, equipment and machinery
- Fire and emergencies
- Manual handling and ergonomics
- Psychosocial factors
- Accidents and diseases [10].

Considering the above-mentioned risks related to food beverage services industry, the objective of this planned study is to identify both vocational school students' perceptions of safety culture and the workplace accidents these students experienced during their education.

MATERIALS AND METHODS Research Model

The present study was conducted using screening research model. Within the scope of this study, occupational health and safety problems of students, studying at the Food and Beverage Services Department in Vocational and Technical High Schools, were identified. Students encountered these problems during their applied courses and at businesses where they went through skill trainings (internship). Another objective of the present study is to identify students' perception of safety culture. The screening model is a research model that aims to describe a past or present incident without making any alterations. This model does not try to influence or alter the incidents in any way.

Research Population and Sample

The research population is composed of continuing students of the second semester of the 2016-2017 school year at the Food and Beverage Services Department in Vocational and Technical High Schools. These schools, situated in the central districts of Ankara and Antalya, operate in connection with the Ministry of National Education. Data revealed by the Ministry of National Education demonstrate that a total of 52251 students are currently enrolled for the for the 2016-17 school year at the Food and Beverage Services Department of schools in the central districts of Ankara and Antalya. The sample size was determined as 381 from Ankara and 248 from Ankara, using the "Table for Determining Sample Size from a Given Population" specified by Krejcie and Morgan [11].

Data Collection Tool and Data Evaluation

Researchers prepared a survey questionnaire on data collection. This questionnaire was composed of 28 questions designed to determine respondents' demographical features, their previous accident involvements, their perceptions of safety culture and security precautions taken at their schools. After preparing questions, interviews were conducted with 3 teachers working at the Food and Beverage Services Department in Vocational and Technical High Schools, an academician holding an "A Class Certificate of Expertise in Occupational Health and Safety", and another academician serving in the field of educational sciences. A measuring instrument with a Cronbach's alpha reliability coefficient of 0.7849 was developed according to recommendations [12].

Before passing to the conducting phase, necessary permissions were obtained from Ankara and Provincial Directorates Antalva of National Education in order to include 629 students from 13 schools in the study. Researchers collected data through carrying out face-to-face interviews with students. Obtained data were assessed using the Statistical Package for Social Sciences (SPSS) 21.0.0 software program. Data's percentage frequency distribution was calculated. Chi-Square Analysis was carried out according to some factors such as students' gender, students' major field of study and parents' level of education. Obtained findings were presented using figures and tables.

Objective

Occupational health and safety trainings are quite insufficient in all educational phases in Turkey. In the curriculum of Vocational and Technical High Schools there is not a separate course on occupational health and safety. The impact of these two deficiencies is also reflected in accident rates. Turkey has the highest rates of general and fatal accident frequency in Europe.

European Agency for Safety and Health at Work started a project in 2002. The thinking behind the project is that the sooner children and young people get acquainted with the concept of "safety and health", then the sooner they can develop risk awareness, and the better they can shape their own safety and health environment in the future. In order for this to happen, occupational health and safety trainings should cover all stages of education including kindergarten, primary and secondary school, vocational education. Otherwise, individuals will be more likely to face various problems and suffer from occupational accidents and workrelated diseases [13].

Students get the opportunity to put into practice the knowledge and skills they acquired at school when entering the sector through doing an internship. Children with an early work experience are expected to have developed an occupational safety culture during their training process and understood the significance of occupational health and safety. As a result of literature examination, a study on occupational health and safety at Vocational and Technical High Schools was found [14]. However, literature proved that no studies were conducted on Food and Beverage Services Industry. For this reason, the present study has become of greater importance. Findings will not only significantly contribute to literature but also serve as an important guide for students studying at the Food and Beverage Services Department, allowing them to build a safety culture.

The present study includes students studying at the Food and Beverage Services Department of Vocational and Technical High Schools. The primary objective of this study is to determine what type of workplace accidents students encountered and to identify both their perceptions of safety culture and problems they faced concerning occupational safety during their internship at businesses. In accordance with this objective, respondents were asked to provide an answer to the following questions:

- What do students understand from the term "security culture"?
- What type of accidents occurs to students? What are their main causes?
- What kind of problems do students face during their internship?
- Do students' problems differ by gender?
- Do accident rates differentiate according to students' field of study or parents' level of education?

RESULTS

Findings obtained as a result of the research are presented below:

Table-1: Demographic characteristics

	n	%
Field of Education		

Culinary	504	80.1
Bakery	58	9.2
Service	67	10.7
Class		
10.	190	30.2
11.	247	39.3
12.	192	30.5
Gender		
Female	394	62.6
Male	235	37.4
Mother's Level of Education		
Primary School	281	44.7
Secondary School	201	32.0
High School	125	19.9
Higher Education	5	0.8
University	17	2.7
Father's Level of Education		
Primary School	207	32.9
Secondary School	230	36.6
High School	138	21.9
Higher Education	5	0.8
University	49	7.8

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Participants are composed of 62.6% females and 37.4% males. 44.7% of mothers are primary school

graduates, whereas 36.62% of fathers are secondary school graduates (Table 1).

Table 2. Descentions Taken in ander to answer second tional health as	
Table-2: Precautions Taken in order to ensure occupational health a	nd safety in learning environments

		es	No		Partially	
Questions	n	%	n	%	n	%
Are there any warning signs for occupational health and safety in workshops and/or laboratories at school?	371	59.0	116	18.4	142	22.6
Are there any written and visual warning signs that explain the use and working principles of devices used in workshops or workspaces?	295	46.9	184	29.3	150	23.8
Do your teachers provide you with regular trainings on occupational health and safety?	315	50.1	123	19.6	191	30.4
Do your teachers warn you about potential accidents, hazards and risks that may occur during workshop activities?	456	72.5	57	9.1	116	18.4
Do your teachers inform you about potential occupational diseases that may occur in your future field of work?	326	51.8	150	23.8	153	24.3
Are you required to take on additional responsibilities that fall out of the scope of your job description during your internship?	201	32.0	337	53.6	91	14.5
Are there any warning signs describing the use and working principles of devices at related departments where you did your internship?	327	52.0	165	26.2	137	21.8

While 59% of students indicated that there were warning signs for occupational safety at their workshops and/or laboratories, 46.9% stated that there were written and visual warning signs that described the use and working principles of devices. While 72.5% of students expressed that they were warned by their teachers about potential accidents, hazards and risks that may occur during workshops, 32% explained that they were required to take on additional responsibilities that fall out of the scope of their job description during their internship (Table 2).

The rate of students who indicated that they showed the necessary sensitivity towards occupational safety rules is 69.5%, while the rate of those who expressed that they used personal protective equipment (PPE) such as gloves, finger protectors etc. during work is 37.4%. Moreover, 39.3% of students stated that they were aware of their legal rights about potential occupational diseases that may occur in their future field of work, while 35.9% expressed that they knew their legal rights in case when they get involved in an accident (Table 3).

	Y	Yes		No		ially
Questions	n	%	n	%	n	%
Do you display the necessary sensitivity towards occupational safety rules as a student?	437	69.5	64	10.2	128	20.3
Do you use personal protective equipment (PPE) such as gloves or finger protectors etc. during work?	235	37.4	226	35.9	168	26.7
Do you know your rights about potential occupational diseases that may occur in your future field of work?	247	39.3	195	31.0	187	29.7
Do you know your legal rights in case when you get involved in an accident at your future workplace?	226	35.9	236	37.5	167	26.6
Would you prefer to have a separate course on occupational health and safety?	347	55.2	172	27.3	110	17.5
Do you think that an employer should provide trainings on occupational health and safety before employees start their duty?	541	86.0	42	6.7	46	7.3

Table-3: Children's opinions on safety culture (n=629)

Table-4: Students'	' accident involvemen	t rates by gende	er in learning	environments
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	Female		М	ale	Total		
Accident Involvement	n %		n	%	n	%	
Non-involvement	144	22.9	111	17.7	255	40.6	
Involvement	250	39.7	124	19.7	374	59.4	
Total	394	62.6	235	37.4	629	100,0	
	X ²	=6 973 n=0	0.005				

²=6.973 p=0.005

Table 4 displays the differences in accident involvement rates according to the gender of students. However, there are no differences in accident involvement rates according to students' field of study $(X^2=4.005)$, mothers' level of education $(X^2=6.359)$ and fathers' level of education (X²=4.533) (p>0.05) (Table 4).

The rate of students who specified that they did not remember at which time the accident occurred after starting work is 37.2%. Furthermore, 7.2% of students indicated that the accident took place between the fourth and fifth hour after starting work, while 5.4% stated that they had an accident during the third hour (Table 5). According to data revealed by Social Security Institution (SSI), workplace accidents happen mostly during the third hour of work, especially between 10.00-12.00 and 14.00-16.00 [15].

Table-5: At What time the accident occurred after	starting wo	rk (n=629)
Time of accident	n	%

Time of accident	n	%
During the first two hours	20	3.2
During the third hour	34	5.4
Between the fourth and fifth hour	45	7.2
Between the sixth and eighth hour	21	3.2
After the eighth hour	20	3.2
Students who do not remember the time of accident	234	37.2
Students who did not get involved in an accident	255	40.6

Table-0. Distribution of accident causes (II-374)									
Accident cause	n	%							
Fatigue	139	37.16							
Lack of experience	78	20.85							
Long working hours	52	13.90							
Insufficient working conditions	60	16.04							
Inattentive work	74	19.78							
Spilling food, grease etc. on the floor	58	15.5							
Non-use of personal protectors	27	7.21							

Table.6	Distribution o	f accident	C211666*	(n-374)
I abic-v.		i acciuent	causes	(11-3/4/

Note: More than one cause was stated (% =) $\underline{n \ x100}$ ∑n

Of 374 students who were involved in an accident either at school or businesses where they did their internship; 37.16% stated "fatigue", 20.85% stated "lack of experience", and 19.78% stated

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"inattentive work" as their accident causes. Taking breaks at work is important in terms of raising work efficiency and preventing fatigue. Businesses should ensure that interns work for up to 8 hours within legal boundaries, making sure that they do not exceed this limit (Table 6).

234 of the students who participated in the study revealed that they had their body parts cut.

Examining the accidents, it was found that the mostly cut body parts were hands and fingers (33.7%). Additionally, while 9.9% of 142 students who either slipped or fell indicated that their mostly affected body parts were legs and knees, 6.2% of 106 expressed that they had constant pain in their heads, faces and necks (Table 7).

	Head/ Shoulders/ Hands/ Face/ Neck Arms Fingers			Legs/ Knees		Feet		Not Injured				
Type of accident	n	%	n	%	n	%	n	%	n	%	n	%
Cut (n=234)	3	0.5	8	1.3	212	33.7	9	1.4	2	0.3	395	62.8
Slipping-Falling (n=142)	8	1.3	20	3.2	15	2.4	62	9.9	37	5.9	487	77.4
Bone fracture or dislocation	4	0.6	14	2.2	13	2.1	4	0.6	7	1.1	587	93.3
(n=42)												
Boiling water burn (n=68)	8	1.3	6	1.0	46	7.3	5	0.8	3	0.5	561	89.2
Oil burn (n=77)	9	1.4	9	1.4	51	8.1	4	0.6	4	0.6	552	87.8
Puncture (n=32)	4	0.6	7	1.1	17	2.7	3	0.5	1	0.2	597	94.9
Electical shock (n=33)	5	0.8	7	1.1	15	2.4	6	1.0	-	-	596	94.8
Exposure to chemicals (n=27)	7	1.1	7	1.1	8	1.3	2	0.3	3	0.5	602	95.7
Constant pain (n=106)	39	6.2	23	3.7	9	1.4	20	3.2	15	2.4	523	83.1

Table-7: Students' body parts injured as a result of accidents (n=629)

Observing those who experienced problems during internship, it was concluded that male students were under a more intense psychological pressure. As for females, these had a higher rate of being exposed to constant criticism and harassment. (Table 8). Internship is an important process in that it provides occupational experience. Therefore, students may dishearten from their future jobs in case they face problems during this process. Eliminating psychological risk factors carries importance for ensuring occupational health and safety.

	Fei	Female		ale				
Problems faced	n	%	n	%				
Students who did not have problems	308	49.0	164	26.1				
Psychological Pressure	29	4.6	39	6.2				
Constant Criticism	45	7.2	18	2.9				
Harassment	10	1.6	6	1.0				
Assault	2	.3	8	1.3				
$X^2 = 22.841 \text{ p} = 0.000$								

Table-8: Problems faced during internship according to gender (n=629)

Table-9: Problems faced by students due to leaving work late											
]	Female	Ma	ale	X^2	Р				
	Students who did not	367	65.5	193	34.5						
Facing	face problems					18.302	0.000				
Problems	Students who faced	27	39.1	42	60.9						
	problems										
Problems	Students who did not	367	58.3	193	30.7						
faced	face problems										
	Verbal Assault	18	2.9	21	3.3	32.056	0.000				
	Harassment	8	1.3	4	0.6						
	Theft-Mugging	1	0.2	6	1.0						
	Physical Assault	0	0.0	11	1.7						

Table-9: Problems faced by students due to leaving work late

Observing those who faced problems due to leaving work late, it was laid bare that male students, compared to females, were more exposed to verbal and physical assault and to theft and mugging. Female students, on the other hand, were more exposed to harassment. However, there were no females

experiencing physical assault (Table 9). Businesses bear the responsibility to assure the safety of their employees. In this respect, businesses ought to provide employees with various opportunities such as buses etc. in order to ensure that those arrive safely at work.

DISCUSSION AND RECOMMENDATIONS

One of the objectives of vocational education is to ensure that students start their business lives knowing occupational health and safety rules for their field of work. Besides this, it is also important for students to acquire technical knowledge and skills for their future jobs, to be aware of risks related to occupational health and safety and to be sufficiently well-equipped on protection methods. Therefore, occupational health and safety matters ought to be integrated with vocational and technical education.

The most effective and efficient way to make students acquire a perspective on safety culture is to apply occupational safety rules with strict discipline at school. Due to the fact that education programs of universities and secondary schools do not provide a systematic education on teacher training, students are not able to develop a perspective of occupational safety culture. Although significant legal regulations for occupational safety were brought up in recent years, there are still problems at the implementation stage.

There is still not a separate course regarding occupational health and safety. In this study, students studying at the Food and Beverage Services Department specified that there were various deficiencies concerning occupational health and safety at their schools. Moreover, 35.9% of students declared that they knew their legal rights in case when they get involved in a workplace accident. Furthermore, a study conducted in this direction identified vocational school students' level of knowledge on risks relating to their field of study. The same study revealed that students had an insufficient level of knowledge on laws and regulations [16]. Another study carried out with university students in Turkey demonstrated that 27.7% of students were informed about legal regulations regarding occupational safety and 33.8% knew what they had to do about occupational health with regard to their field of study [17]. Positive developments related to occupational health and safety are happening nowadays. It is striking to note that students of both secondary and higher education have a low level of knowledge on this matter. 55.2% of students declared that they wished to have a separate course on occupational health and safety. The study conducted by Topgül and Alan [18] displayed that 43.1% of university students completely shared the idea that a separate course on occupational health and safety should be added to the curriculum. Another aspect revealed is that occupational safety trainings hold an important place at schools and their integration into business life should be ensured [19, 20].

While 59.50% of 629 participant students had an accident in their learning environments, 40.50% did not have an accident. Another study conducted with vocational and technical high school students showed that 10.6% of students experienced an occupational accident [14].

Furthermore, half of the students (59.4%) suffered from health problems and accidents such as continuous pain, cut, burn, falling etc. at schools or businesses where they did their internship. Another study realized with Restaurant Management and Food Program students displayed that elements such as ergonomics related problems, burns, cuts, risk of slipping and stress figure among the risk factors that students face in their working environments [20]. Students stated that they were exposed to constant criticism, psychological pressure, harassment etc. during their internship. A study on China's and England's vocational education systems established that the Chinese educations system do not attach enough importance to mental health. The study, emphasizing once again the necessity of attaching importance to this matter, established that England does not only pay attention to students' physiological health but also to students' mental health once they start working as employees later on [21].

A study examining the problems of actively working adolescents revealed that 59.72% of children were exposed to occupational abuse (including physical and sexual abuse, but especially emotional abuse) [22]. The results of other studies and the results of our study show some similarities. Internship is an important period for gaining experience. Internship serves also as a determining factor since it influences students' decisions on whether or not to continue their jobs. It is the responsibility of school principals and educators to promote a safe environment for students during their internship and training process at school. Businesses should furnish students with opportunities such as buses etc. with a view to ensuring that they arrive home safely at late hours. School principals can establish a studentcentered system and ensure that this system operates in tight cooperation between businesses, school and family. Various work can be carried out with a view to improving schools' physical conditions and turning them into safer environments. Since problems regarding occupational safety can occur at any time at school, all constituent elements of a school (such as principals, teachers, students, parents and businesses) should work in cooperation. This way, it will be possible to instill safety awareness in students and to create a safety environment at school and at businesses where students do their internship.

Systematic trainings on occupational health and safety may be provided starting from the preschool period with the purpose of ensuring that individuals develop a perspective of safety culture. A separate course on occupational health and safety should especially be added to the curriculum of Vocational High Schools.

Individuals will be able to adopt safety culture as a lifestyle provided that all media outlets constantly provide them with information on occupational health and safety.

REFERENCES

- 1. Şık A, Akar Şahingöz S. Occupational Health and Safety According to the Most Recent Legislations. Detay Yayınları, Ankara. 2015. Turkish.
- Republic of Turkey Social Security Institution [cited 2018 February 13] Avaible from: http://www.sgk.gov.tr/ wps/portal/sgk/en/homepage/mainpage
- 3. ILO. Occupational Safety and Health Profile Turkey. 2016. http://www.ilo.org/wcmsp5/ groups/public/---europe/---ro-geneva/---ilo ankara/documents/ publication/wcms_498829 .pdf4.
- 4. Ceylan H. Occupational health and safety education in Turkey problems and solution suggestions. *Electronic Journal of Vocational Colleges*. 2012. 2: 94-104.Turkish.
- Mesleki ve Teknik Anadolu Lisesi Anadolu Meslek Programı, http://ttkb.meb.gov.tr/ meb_iys_dosyalar/2018_02/21173451_ort_ogrtm_ hdc_2018.pdf 13.03.2018
- Resmi Gazete, 29/03/2013 tarih ve 28602 sayı T.R. Prime Ministry Official Gazette, Legal Notice on Workplace Occupational Health and Safety Related Hazard Classes. 2013 March 29 ve 28602 number.
- 7. Halkbank. Institutional Social Responsibility Project, Tourism Report 2011.
- 8. Sit M. Employment contribution of tourism sector in Turkey. *Journal of Academic Approaches*. 2016; 7(1): 101-17. Turkish
- 9. In the first 5 months of 2016, at least 18 child workers and in the last three and a half years at least 194 child workers lost their lives. Avaible from: http://www.guvenlicalisma. org/index.php? option=com_content& view=article&id=17477:2016-yilinin-ilk-besayinda-en-az-18-son-uc-bucuk-yilda-ise-en-az-194-

cocuk-isci-yasamini-yitirdi-isigmeclisi&catid=153:cocuk-iscilik&Itemid=242 (cited 2018 February 13)

- Sahingoz S, Sik A. Health and Safety in Food and Beverages Businesses, Ankara: Detay Yayınları. 2015. Turkish.
- Krejcie V, Morgan DW. Determining Sample Size For Research Activities. Educ Psychol Meas. 1970; 30: 607-610.
- 12. Ural A, Kılıç İ. Scientific Research Process and Data Analysis with SPSS. Ankara: Detay Yayınları. 2006. Turkish.
- 13. ILO Occupational Safety and Health Profile Turkey. 2016. (cited 2018February 13) Avaible from: http://www.ilo.org/wcmsp5/groups/public/--europe/---ro-geneva/---ilo-

ankara/documents/publication/ wcms_ 498829.pdf

- 14. Uçkun CG, Alkan E, Uçkun S. Occupational safety awareness of vocational high school students *Javstudies*. 2017; 3(15): 328-347. Turkish
- Anadolu Agency Research Findings on Occupational Accidents and Work-Related Health Problems. (cited 2018 February 13) Avaible from: http://aa.com.tr/tr/yasam/is-kazalari-mesainin-3saatinde-yasaniyor/277597 (2013).
- Andersson M, Gunnarsson K, Rosèn G, Åberg MM. Knowledge and experiences of risks among pupils in vocational education. Safety and health at work. 2014 Sep 1;5(3):140-6.
- 17. Topgul S, Alan C. Evaluation of students'job safety and job safety training perception. *Suleyman Demirel University Journal of Faculty of Economics and Administrative Sciences.* 2017; 22(2) 587-5989.
- 18. Laberge M, Ledoux E. Occupational health and safety issues affecting young workers: A literature review. Work. 2011 Jan 1;39(3):215-32.
- Chatigny C, Riel J, Nadon L. Health and safety of students in vocational training in Quebec: a gender issue?. Work. 2012 Jan 1;41(Supplement 1):4653-60.
- Zierold KM, Welsh EC, McGeeney TJ. Attitudes of teenagers towards workplace safety training. Journal of community health. 2012 Dec 1;37(6):1289-95.
- 21. Nie B, Huang X, Xue F, Chen J, Liu X, Meng Y, Huang J. A comparative study of vocational education and occupational safety and health training in China and the UK. International Journal of Occupational Safety and Ergonomics. 2018 Apr 3;24(2):268-77.
- Bildik T, Büküşoğlu, Kesikçi H. The psychosocial problems of working adolescents and their solution suggestions. *Ege Journal of Medicine*. 2004; 43(2): 105 – 111. Turkish.