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Investigation of Fatalistic Beliefs and Experiences Regarding Occupational Accidents Among Five Stars Accommodation Companies Employees

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Abstract

Occupational accidents are among the most serious problems of work life. Researches show that a significant number of occupational accidents occur because of human errors rather than technical problems. Understanding the attitudes of employees regarding occupational accidents is essential to prevent them. Within this respect, the main purpose of this study is to reveal the fatalistic beliefs and experiences of employees of accommodation companies regarding occupational accidents. This research was conducted with the participation of employees working in kitchen, housekeeping, restaurant and bar and technical service departments of five-star accommodation companies in Alanya. Sample consisting of 797 employees was selected through random sampling method. The results of the research reveal that the possibility of both experiencing and witnessing an occupational accident is much higher for employees working in kitchen departments. It has been determined that one of the two people working in the kitchen department witnessed a occupational accident. One of the important results of the research is that the fatalistic beliefs about occupational accidents are significantly higher for workers who have experienced or witnessed occupational accidents. One of the important research findings is that fatalistic beliefs of employees differ depending on their education levels, ages and departments they work in. As a result of the research, it has been determined that the variable of education on the fatalistic beliefs of employees about job accidents has a dominant effect.

Keywords: Fatalism, occupational accidents, accommodation industry, hotel employees.

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INTRODUCTION

Occupational accident can be defined as an unexpected and unplanned event that is associated with the work and caused by unsafe acts and conditions or both, and might lead to immediate or delayed unpleasant effect as well as illness, injury or death among a large number of workers (Kiani & Khodabakhsh, 2014: 308). Although certain developments in occupational health and safety have been implemented across the world, work-related injuries and deaths continue to occur at an alarming rate (Amponsah-Tawiah et al., 2016; Henning et al. 2009; Jovanović et al. 2004; Jones & Wuebker 1993). According to data from the International Labor Organization (ILO:2015), 153 employees each 15 seconds experience occupational accidents and of those 1 employee loses his/her life due to occupational accidents or occupational diseases. As a result of occupational accidents or occupational diseases, more than 2.3 million people lose their lives across the world. Hence occupational accidents are still among the most important problems of business life (Perttula & Salminen, 2012; Song et al., 2011; Al-Khatib et al. 2005; Chau et al., 2002). Workplace accidents are costly to both individuals and their employing organizations (Ugwu et al. 2015: 464). According to projections of the ILO, the economic cost of not taking necessary precautions regarding occupational health and safety amounts to 4% of gross domestic product around the world (ILO, 2015). These numbers show financial losses based on occupational accidents have reached serious levels and put a considerable amount of burden on the economies of countries. In addition, more people lose their lives due to these accidents, financial losses worth billions of dollars occur and because of these situations productivity decreases (Karamik & Seker, 2015; Anderson et al. 2010).

According to the most contemporary data in Turkey, the number of employees in 2013 who experienced occupational accidents was 191.389 and those having caught an occupational disease were 371. Thirteen thousand and sixty people lost their lives and 1694 people become permanently disabled. These accidents and occupational diseases caused a 2.358.135 day-labor loss (SGK, 2015). In 2010, in Turkey, the number of people having experienced an occupational accident in the tourism sector was 1726. Forty nine percent of these accidents occurred in the food and beverage sector, 42% occurred in accommodation companies and 9% occurred in other sectors. Occupational accidents in the tourism sector increased 9% in 2011, 20% in 2012 and 80% in 2013. This extraordinary increase in rates of occupational accidents in the tourism sector in 2013 can be explained by the fact that data were recorded in line with EU standards starting from 2013 and the

number of occupational accidents covered after paying necessary fines was taken as a basis for the statistics. This situation makes it impossible to compare obtained data with those in previous statistical yearbooks on a yearly basis (Çavuş & Akkuş, 2015).

In analyzing the reasons for accidents from a general perspective, the results show that the root of almost all accidents is human error (Gerek, 2006; Ghosh et al., 2004; Zohar, 2000). In research carried out at different times in Turkey, it has been shown that the main reason underlying occupational accidents is the human factor (Kepir 1981; Geçer, 2014; Aybek et al. 2003; Gülhan et al. 2012). According to the Health and Safety Executive (HSE), a prestigious authority that addresses occupational health and safety, 90% of occupational accidents result from human-driven mistakes. In addition, it is indicated that 70% of accidents could be prevented if particular precautions were taken in advance (Hughes & Ferrett, 2012). The fact that occupational accidents mostly result from the unsafe behaviors of employees draws attention to the necessity to focus on human factors in terms of preventing accidents (Dźwiarek & Latała, 2015; Camkurt, 2007). One reason that the issue of occupational accidents is an important one is that they can be prevented through taking necessary precautions (Hughes & Ferrett, 2012; İlhan et al., 2006; Vrendenburgh, 2002). It can be understood from these research results that human factor ranks first among reasons underlying occupational accidents. Therefore, occupational accidents are an important issue that needs to be seriously examined.

Recently many organizations have begun to focus on improving workplace safety and lowering work-related accidents by collaborating with human factors experts to incorporate workers' cognitive, perceptual and physical limitations when designing occupational environments. These organizations also have included certain work-setting factors such as workload, monotony and work schedules, monitored worker characteristics such as risky behaviors and human error that lead to accidents (Ugwu et al. 2015: 464). The fact that most occupational accidents are caused by human error indicates the importance of research on underlying human factors. In this regard, a point gaining importance in terms of occupational accidents is to what extent employees react to occupational accidents. Fatalistic beliefs regarding occupational accidents impact how employees react to these accidents.

Fatalism concerning accidents refers to the belief that accidents are unavoidable results of chance or fate (Henning et al. 2009: 399). In other words fatalistic beliefs regarding occupational accidents cannot be prevented,

even if all precautions in terms of occupational health and safety are taken, result in the attitude that taking these precautions is useless and have no influence on accidents (Rundmo & Hale, 2003). Fatalistic individuals generally think that they have no control over events and that they are controlled by external factors (divine, powerful forces) which they cannot influence (Kouabenan, 1998; Hazen & Ehiri, 2006).

Fatalism is an obstacle to the adoption of safe working behavior. The belief in fatalism has negatively influenced the acceptance of safe work practices. Fatalism is described as a complicated psychological construct that can be recognized by perceptions of worthlessness, powerlessness, hopelessness, and futility. Thus an individual having this faith is more likely to become passive in regard to safety issues (Kiani et al., 2013: 166-170). In this regard, the belief in fatalism regarding occupational accidents reflects an approach based on locus of control. In the occupational safety context, locus of control refers to workers' beliefs or perceptions about who controls safety events at work. Workers with internal safety locus of control tend to believe that they are responsible for their safety and can prevent accidents and injuries. In contrast workers with external locus of control tend to believe that accidents and injuries are due to forces outside their control, such as chance, fate, or bad luck. Safety locus of control has been considered to be an important factor in workplace safety as indicated by its associations with injuries and safety behaviours (Cigularov et al., 2009: 299). In this context, fatalism belief regarding occupational accidents can be considered under external locus of control (Shen et al. 2009; Henning et al. 2009: 399).

Faced with an occupational accident, people with fatalistic beliefs tend to find an external reason that they could not personally control (Kouabenan, 1998:250). Walster's (1966) study has revealed that people try to find someone who is responsible or guilty, especially when it comes to accidents that have heavy consequences.

Culture also plays a part in fatalistic belief. In Western societies where the culture of individualism is foremost, the internal locus of control is strong, whereas the external locus of control is commonly observed in Eastern societies where collectivism is more dominant (Mueller & Thomas, 2001:51). Therefore, in examining fatalism as a part of external locus of control, we can infer that fatalism is more dominant in Eastern countries. As an example, a study of 213 students in Canada from different ethnic origins revealed that students from Eastern Asia were more fatalistic than those from Europe (Norenzayan & Lee, 2010). Another study in Nigeria revealed that people

living in the Yoruba region who are closely bound by traditions believe that death and accidents are the result of destiny. Similarly, employees and workers working in medical waste sectors in another Asian country, Bangladesh, also associate occupational accidents with destiny. Research in Bangladesh has revealed that 95% of workers working in the medical waste sector are subject to occupational accidents at least once and 89% consider these occupational accidents from a fatalistic perspective (Patwary et al., 2012).

A belief in fatalism influences many aspects of daily life and furthermore manipulates human behavior all the more so when it comes to occupational accidents. Ugwu et al. (2015) revealed that, a fatalistic view about accidents predicted non-compliance with safety work behaviors. Kiani & Khodabakhsh, (2013) found the perception of fatalism and helplessness in work environments can be obstacles to prevent occupational accidents. They concluded that promoting safety climate can be associated with fatalism culture change and also perceived helplessness reduction among workers. Kouabenan (1998) revealed that fatalistic individuals take bigger risks because they have limited knowledge of risks and accidents, leading them to misestimate the probability of occupational accidents occurrence. Henning et al. (2009) examined the influence of individual differences on organizational safety attitudes. They found agreeableness, conscientiousness, prevention regulatory focus, and fatalism significantly related to safety attitudes. Jones & Wuebker (1993) conducted a study on the validity of the safety locus of control scale. They found employees with more external safety locus of control orientations significantly more occupational accidents, as well as more severe and costly injuries, than employees with more internal safety locus of control orientations. Cigularov et al. (2009) examined the effects of safety locus of control and safety climate on young workers' communications. They revealed that having a high internal safety locus of control and perceived a positive safety climate were more likely to openly communicate their mistakes

Occupational accidents are a major problem in workplaces in Turkey, as well as in other parts of the world. Thousands of people working in different sectors lose their lives each year due to occupational accidents (Aytaç, 2011; Yıldız et al., 2015; Ceylan, 2011). Occupational accidents may result in injuries, pain, incapacity, labor loss, physical disabilities and loss of limb and even death. In the literature concerning occupational safety worldwide, there exist many studies where the relationship between occupational safety and safety culture are examined from various dimensions in different sectors. Recently, similar studies have also been carried out in Turkey. However,

after a comprehensive review of the literature, it was seen that no research was carried out about the fatalistic beliefs and experiences regarding occupational accidents of accommodation company employees in Turkey. Researches show that most of the occupational accidents are human factor-based and can be prevented with the necessary precautions. Although many legal and organizational regulations on employee health and occupational safety have been put into force recently in Turkey, statistics regarding all sectors show that desired improvements in occupational safety issues are progressing quite slowly. Understanding the attitudes of employees regarding occupational accidents is an important step taken against occupational accidents. This study aims to reveal the experiences of accommodation company employees regarding occupational accidents and understand their fatalistic beliefs. The research was conducted on employees working in kitchen, housekeeping, restaurant, bar and technical service departments which carry a higher risk of occupational accidents than the other departments.

MATERIAL AND METHODS

Subjects and Procedures

Occupational accidents are among the important problems of work life and Turkey is not an exception. There are many legal regulations have been enacted regarding employee health and security. However statistics show that the number of occupational accidents is still high. The legislations against occupational accidents are essential but not enough. One important matter is the attitudes and behaviors of employees and managers regarding occupational accidents. Researches show that many occupational accidents are human factor-based rather than technical problems. Research on this matter shows that 50% of plane crashes and 50-70% of nuclear accidents are individual-driven. Therefore, it is understood that technological solutions regarding occupational health and safety are not sufficient (Secer, 2012: 32). Within this respect, the main purpose of this study is to reveal the fatalistic beliefs and experiences of employees of accommodation companies regarding occupational accidents. The risk of high occupational accidents in kitchens, housekeeping, restaurants and bars and technical service departments (Subramaniam & Murugesan, 2015; Tiwari, 2015; Kokane & Tiwari, 2011; Teo et al., 2009; Chyuan et. al. 2004; Suzman et al., 2001) is the main reason why this research has been conducted in these departments.

Data Collection and the Measurement Instrument

This research was conducted with the participation of employees working in kitchen, housekeeping,

restaurant and bar and technical service departments of five-star accommodation companies in Alanya. Thirty five accommodation companies were selected for the research. Within this framework, human resource managers of hotels were selected via random sampling to provide information for the purpose and content of the research. Human resource managers of 35 hotels were reached and informed of the project through phone calls. Human resource managers of 16 hotels agreed that the research could be carried out in their hotels.

The survey instrument was a self-administered questionnaire with sections on demographic characteristics and fatalism scale. Personal characteristic form contained questions determine the respondents' demographic characteristics. They included gender, age, marital status, education level, department, position and working duration. Fatalism Scale developed by Rundmo & Hale (2003) is composed of 7 questions. It evaluates employees' fatalism beliefs regarding occupational accidents. The fact that the total score obtained from the scale is high shows that fatalism beliefs regarding occupational accidents is high, as well. In other words the higher scores indicate that employees perceive occupational accidents as inevitable and uncontrollable. Variables were measured on a five-point Likert scale, with 1 representing "completely disagree" to 5 representing "completely agree". Examples of items were: "Accidents seem inevitable despite the efforts of the Company to prevent them", "Accidents just happen, there is little one can do to avoid them".

Data Analysis

Reliability test (Cronbach's alpha) was conducted for internal consistency *Fatalism Scale*. In order to maintain the additivity nature of the scale in reliability analysis, it was projected that correlation coefficients for item-total could not be negative and higher than 0.25 (İşler & Özdemir, 2010). As a result of the reliability analysis of the fatalism scale concerning occupational accidents, it was observed the correlation coefficient of one item was below 0.25 and negative. This item was removed from the scale and the reliability test was re-applied. As a result of the re-applied reliability test, it was determined that the item-total correlations were high values ranging between 0,7897 and 0,9521. The general reliability value (Cronbach's alpha) of the scale was found to be $\alpha=,969$. As to determine the validity of *Fatalism Scale*, explanatory factor analysis (EFA) was carried out. While evaluating fatalism beliefs of respondents regarding occupational accidents in terms of their socio-demographical characteristics, Chi-square test and CHAID analyses were used.

RESULTS

Descriptive Statistics

The study sample consisted of 797 workers. Respondents in the research worked in the housekeeping, kitchen, food and beverage and technical service departments of five-star accommodation companies. Among these 39% were food and beverage department workers, 29% kitchen workers, 27% housekeeping services workers and 6% technical service department workers. The vast majority of respondents (66%) were composed of male employees. Having examined the respondents as to age, it was seen that young and middle-aged groups were predominant. The majority of workers belonged to the 18-33 age group (55%). Of the respondents 38,7% are among the 34-49 age group. Respondents aged 50 and over comprised of 5,6% of total respondents. In general, 80% of respondents were primary (42%) and high school graduates (38%), 20% had associate degrees and Bachelor degrees.

occupational accident. Sixteen percent of respondents working in technical service departments indicated they had experienced occupational accidents and 40% of them expressed they witnessed such accidents. The risk of employees working in food and beverage and housekeeping services experiencing and witnessing an occupational accident is lower than that of those working in kitchen and technical service departments. Obtained findings show employees included in the research as respondents have experienced occupational accidents. In order to determine whether employees being subject to and having witnessed occupational accidents indicate a significant difference in statistical terms, chi-square test was applied. According to test results, it was found there was a statistical difference at 0,05 significance level between risk of employees experiencing [$\chi^2=59,218$ (df:3); $p<0,05$] and witnessing [$\chi^2=84,183$ (df:3); $p<0,05$] an occupational accident.

Table 1: Occupational accident experience of participants

Departments	Exposure to occupational accidents ($\chi^2=59,218$; df:3; sig.0,000)		Witnessing occupational accidents ($\chi^2=84,183$; df:3; sig.0,000)	
	Yes	No	Yes	No
		n		n
Kitchen	52	175	116	111
	22,9%	77,1%	51,1%	48,9%
Technical Service	7	36	17	26
	16,3%	83,7%	39,5%	60,5%
Food and Beverage	16	297	79	234
	5,1%	94,9%	25,2%	74,8%
Housekeeping	8	206	27	187
	3,7%	96,3%	12,6%	87,4%
Total	83	714	239	558
	10,4%	89,6%	30,0%	70,0%

In Table 1, findings regarding occupational accident experiences of respondents are presented. Ten percent of respondents stated they experienced an occupational accident, whereas 30% stated they had witnessed accidents. According to results of crosstab analysis, the probability of employees working in kitchen departments experiencing and witnessing occupational accidents are higher than those in other departments. Twenty three percent of respondents working in kitchens indicated they were subject to occupational accidents and 53% of them expressed they had witnessed such accidents. According to this result, it can be understood that every other person working in kitchen departments witnessed an

Exploratory Factor Analysis Findings

As a result of factor analysis applied to the occupational accident-based fatalism belief scale used in the research and composed of six items, it was found the scale was single factorial. One item was removed from the analysis due to its factor loadings being under .50. Factor analysis results showed factor loadings of items were over 0,50 (Hattie, 1985).

Table 2: Exploratory factor analysis for fatalistic belief concerning occupational accidents

	Factor Loadings	Eigenvalues	The Ratio of Variance (%)	Cronbach's Alpha
F1	,921			
F2	,902			
F3	,896	3,824	76,490	,92
F4	,835			
F5	,815			
Kaiser-Meyer-Olkin Value		,878		
Bartlett's test of sphericity		3047,539 (df: 10),p=0,000		
The Ratio of Total Variance (%)		76,490		
Overall Cronbach's Alpha		,921		

The fatalism belief scale is composed of one factor and explained 76,490% of the total variance. KMO (Kaiser-Meyer- Olkin Measure of Sampling Adequacy) value of the scale was found to be .878 and Bartlett's Test of Sphericity was calculated as $X^2_{(10)}=3047,539$; $p=0,000$. Obtained findings show that sample size was sufficient and data were appropriate for factor analysis.

Findings of the CHAID Analysis

CHAID analysis is used to determine the relationship between one predicted variable and more than one predictive variable. In CHAID analysis, all predictive variables are compared and the best explained predicted variable is picked and then a set of data is categorized into sub-groups in line with this predictive variable. These sub-groups create new sub-groups for all significant predictive variables. CHAID is a powerful statistical technique that analyzes data obtained via interval, ratio and nominal scales at the same time and shows relationships between predicted and predictive variables in all details covering all possible hierarchies (Üngüren & Doğan, 2010). Briefly, CHAID analysis creates sub-sets through categorizing factors affecting dependent variables according to their significance levels. In the research, integrated categories and sub-groups of variables affecting belief levels of respondents regarding occupational accidents were determined via CHAID analysis.

Sub-sets explaining fatalism beliefs regarding occupational accidents are shown in Figures 1 and 2. Variables effective on fatalism belief were determined according to significance levels. According to the CHAID results, experiencing occupational accidents comes first among the effective variables on fatalism beliefs of respondents regarding occupational accidents ($F=37,362$; $p<0,05$). Fatalism belief levels ($\bar{x}=3,81$; $SD:1,18$) of respondents having experienced occupational accidents (Node 1) are higher than those (Node 2) not having experienced accidents

($\bar{x}=2,78$; $SD:1,48$). Within the framework of this result, it can be indicated that those who experience an occupational accident adopt a fatalist approach to these accidents.

Witnessing an occupational accident has a dominant effect on fatalism beliefs of respondents who have never experienced such accidents. Fatalism belief levels ($\bar{x}=3,61$; $SD:1,41$) of respondents having experienced occupational accidents (Node 3) are notably higher than those (Node 4) not having experienced such accidents ($\bar{x}=2,52$; $SD:1,40$). In line with this result, it can be pointed out that witnessing an occupational accident, even if it has not been personally experienced, increases fatalism beliefs in a statistically significant way. Fatalism beliefs of respondents who witness or do not witness any occupational accidents differ according to their education levels in a statistically significant way. According to findings of the CHAID analysis, fatalism beliefs of high school graduates who have never witnessed an occupational accident ($\bar{x}=1,958$; $SD:0,81$) is statistically lower than primary school, high school and associate degree graduates ($\bar{x}=2,6$; $SD:1,46$). Fatalism belief levels of employees ($\bar{x}=4,320$; $SD:1,03$) who graduated from primary school and witnessed an occupational accident are higher than those of employees who graduated from high school or had associate degrees or Bachelor degrees ($\bar{x}=3,02$; $SD:1,14$). In line with these findings, as education levels of employees increase, fatalism beliefs of employees regarding occupational accidents notably decrease.

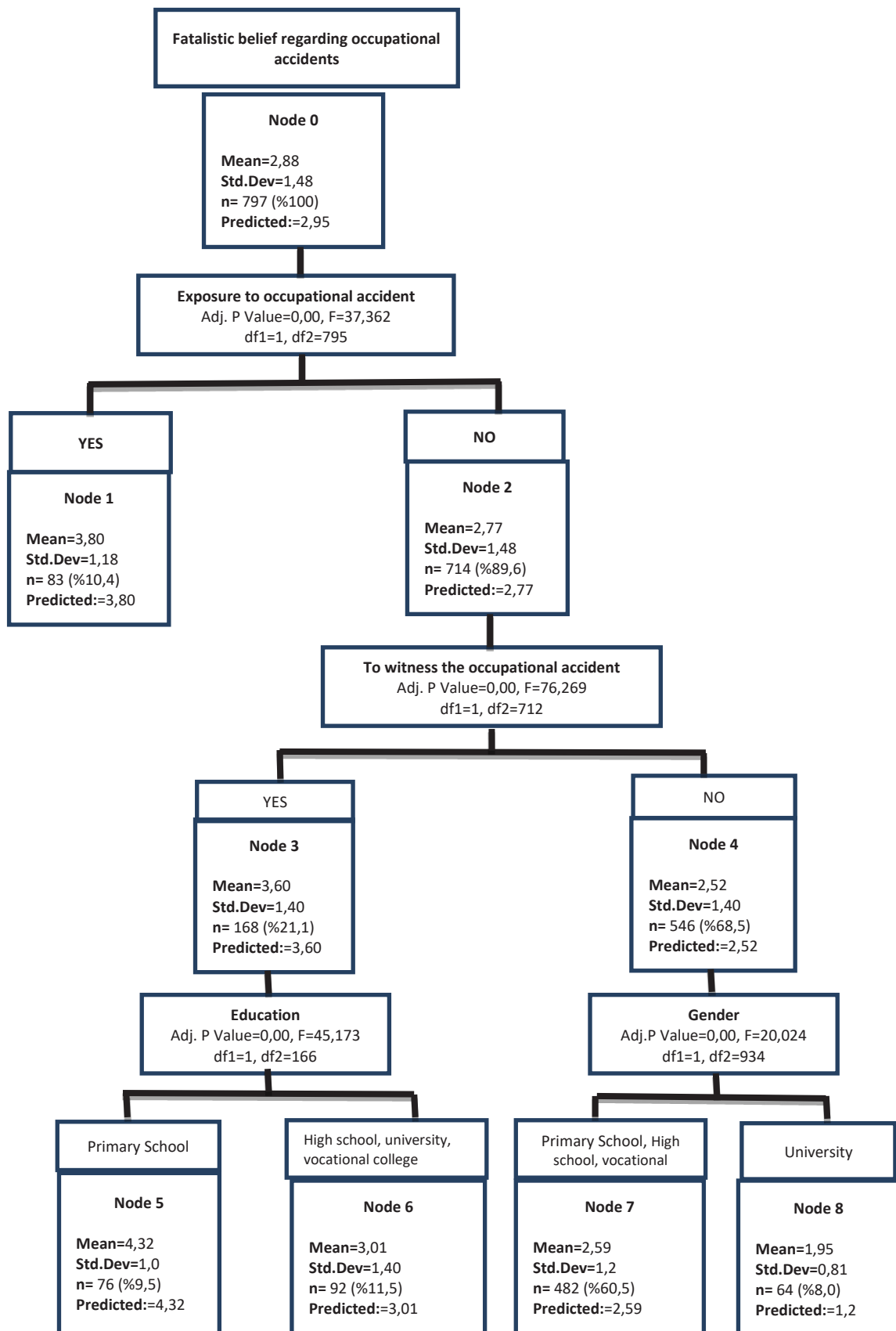


Figure 1: CHAID Analysis of the Occupational Accident Experience

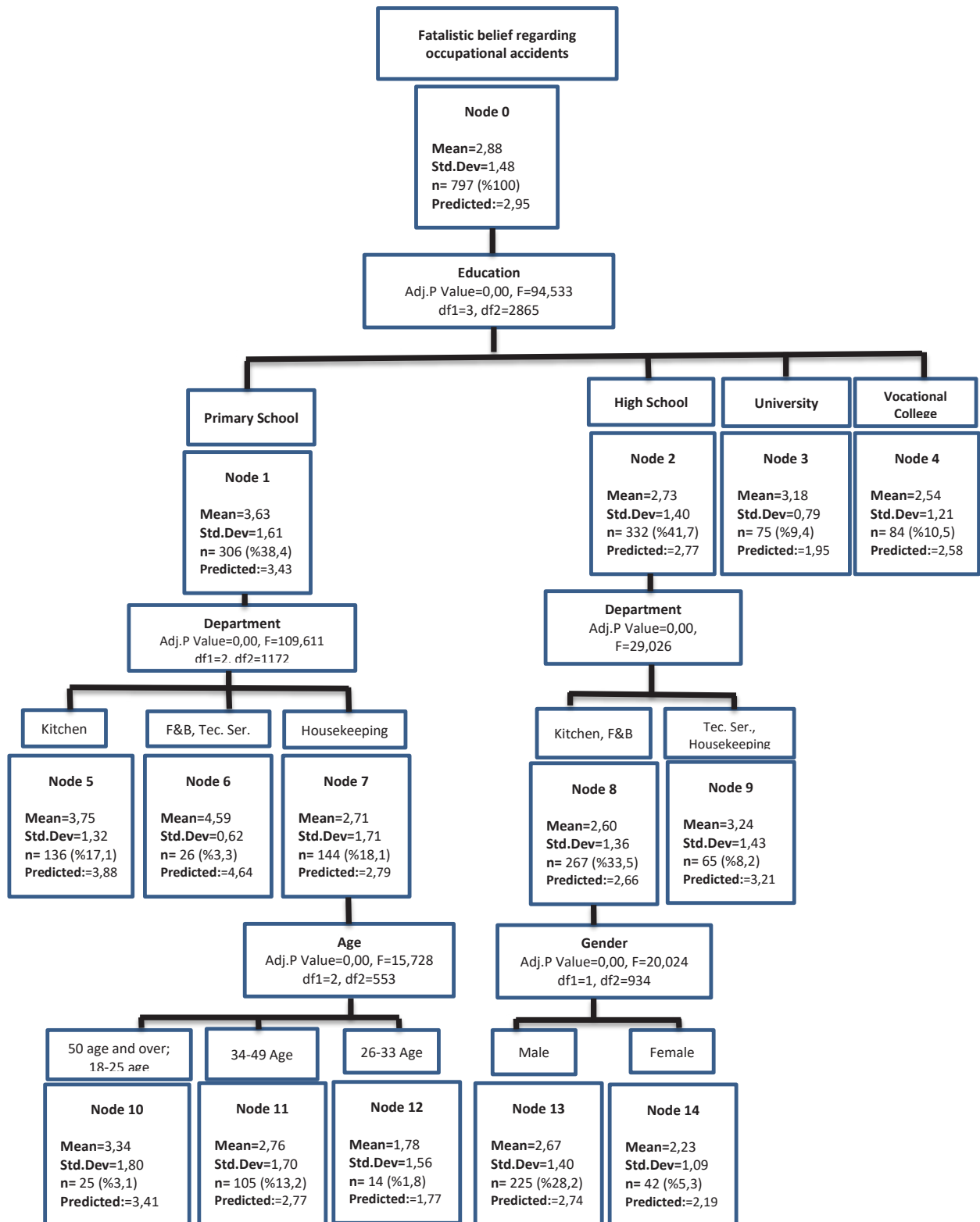


Figure 2: CHAID Analysis on the Demographic Variables

It was found that the variable that has a dominant effect on fatalism beliefs of employees having graduated from primary school (Node 1) and high school (Node 2) was the department they work in. It was observed that the variable that has a dominant effect on fatalism beliefs ($\bar{x}=3,63$) of employees (Node 1) graduated from primary schools ($F=109,611$; $p<0.05$) was the department they work in. In line with this result, it can be stated that fatalism beliefs of employees having graduated from primary school differs depending on their departments. It was observed that employees having graduated from primary school and working in food and beverage and technical service departments (Node 6) have strictly adopted the fatalism belief ($\bar{x}=4,59$) regarding occupational accidents. Moreover, employees having graduated from primary school and working in kitchens (Node 5) show a fatalist attitude ($\bar{x}=3,76$). It was found fatalism belief levels of employees having graduated from primary school and working in housekeeping departments are lower ($\bar{x}=2,78$) than other departments. However, fatalism belief levels of employees having graduated from primary school and working in housekeeping departments differ according to the variable 'age' in a statistically significant way. It was determined that fatalism belief of employees regarding occupational accidents (Node 10; $\bar{x}=3,35$) who are included in the youngest (18-25 age) and the oldest (50 age and over) groups composed of primary school graduates and working in housekeeping services is much higher than other age groups.

It was also found that the variable that has a dominant effect on fatalism beliefs ($\bar{x}=2,73$) of employees (Node 2) having graduated from high school ($F=29,026$; $p<0.05$) is the department they work in, just as was observed with primary school graduates. According to findings obtained as a result of the CHAID analysis, employees having graduated from high school are categorized under two groups (Node 8 and Node 9) in terms of fatalism belief regarding occupational accidents. Fatalism belief ($\bar{x}=2,61$) of employees having graduated from high school and working in food and beverage and kitchen departments (Node 8) differ according to their genders in statistical terms ($F=20,024$; $p<0.05$). Fatalism belief levels of male workers having graduated from high school and working in food and beverage and kitchen departments (Node 13 $\bar{x}=2,68$) are higher than those of female employees (Node 14; $\bar{x}=2,24$). According to CHAID analysis results presented in Figure 2, as education levels of employees working in food and beverage, kitchen and technical service department rise from primary school level to high school level, their fatalism beliefs regarding occupational accidents considerably decrease.

DISCUSSION

Occupational health and safety management is one of the most important aspects of human concern. It aims at an adaptation of the working environment to workers for the promotion and maintenance of the highest degree of physical, mental, and social well-being of workers in all occupations (Amponsah-Tawiah et al., 2016: 12). Fatalism is regarded as an obstacle for safe working behavior. Fatalism has been shown to play a significant role in determining a vast range of individual behaviors including adoption of self-protecting behaviours (Ruiu, 2013: 103-104). People with fatalistic beliefs tend to explain incidents by uncontrollable and random elements, such as fate or bad luck, which are unchangeable. Thus, they are more likely to become passive in regard to safety issues, which, in turn, may lead to less willingness to take precautions or obey workplace safety rules (Kiani et al., 2013: 170). The main purpose of this study is to reveal the experiences of accommodation company employees regarding occupational accidents and understand their fatalistic beliefs. The research was conducted on employees working in kitchen, housekeeping, restaurant, bar and technical service departments which carry a higher risk of occupational accidents than the other departments.

One of the important results obtained within the scope of the research is related to occupational accident experiences of respondents. It was found that 10% of respondents experienced an occupational accident, whereas 30% just witnessed an accident. As well, it was observed that the possibility of both experiencing and witnessing an occupational accident is much higher for employees working in kitchen departments. In the research, every other person working in kitchen departments had witnessed an occupational accident.

Kitchen work has been reported to involve a marked workload, poor environment and high risks of work-related diseases and injuries for cooks and food service workers. In Japan, this has involved an estimated 2.6 million kitchen workers, accounting for 4.1% of all employees. Many studies report a high risk of kitchen work-related burns or cuts among kitchen workers in many countries, such as in the US, Finland, Ireland, Canada, Singapore, India and Japan. In addition, burns injuries lead to loss of work hours and public expense (Haruyama et al., 2014). Kokane & Tiwari (2011) have stated that those working in food and beverage companies and hotel kitchens mostly experience such accidents as hot oil burns, knife cuts and falling on slippery floors. Subramaniam and Murugesan (2015) conducted the study to determine the work related musculoskeletal disorders and ergonomic risks among

the male kitchen workers of various hostels in India. They revealed that 67.5% of the male kitchen workers experienced work-related musculoskeletal disorders during the past 12 months. Chyuan et al. (2004) carried out a research on the hotel restaurant workers in Taiwan. They revealed that kitchen workers possess work-related musculoskeletal disorders compared with workers working in the other sections of a hotel restaurant carried out a research at the hotel restaurant. Research on this matter reveals that those working in kitchen departments are within the high risk group in terms of occupational accidents and disorders (Subramaniam & Murugesan, 2015; Demirtaş & Demirtaş, 2015; Tomita et al., 2013; Buchanan et al., 2010; Alamgir et al., 2007; Haukkal, 2011; Horwitz et al., 2005; Gleeson, 2001; McLean et al., 1997; Chyuan et al. 2004).

It was also found that fatalism beliefs of employees differ depending on whether or not they have been subject to or witnessed an occupational accident. One of the important research findings is that fatalism beliefs of employees who experienced occupational accidents or witnessed such accidents are notably high. Gonçalves et al. (2008) revealed that work accident experience has a positive correlation with external causal attributions and risk behaviours and a negative correlation with internal attributions and safety behaviours. As such, the results revealed that more work accident experience is associated with more external causal attributions and more risk behaviours, less internal attributions and less safety behaviours. These results show that work accident experience seems to be a good predictor of risk behaviour.

Gyekye (2010) examined three categories of coworkers who were all eye-witnesses to occupational accidents. These groups are (1) situationally relevant (coworkers who perceived a similarity in their physical circumstances with the accident victims, e.g., using and operating similar tools and machinery) (2) personally relevant (coworkers who perceived a similarity in beliefs, values and personal characteristics, e.g., same sex, values and work behavior); and (3) non-relevant (coworkers who had no perception of similarities or relevance with the accident victims). It was noted that while the situationally and personally relevant coworkers attributed occupational accidents more to work-environmental factors (external factors), they assigned less responsibility to the accident victims and exonerated them from blame and responsibility. Meanwhile, their non-relevant counterparts indicated more internal attributions and assigned more responsibility to the accident perpetrators in terms of holding them accountable for the accident occurrence.

In 2014, many people lost their lives due to mining accidents. In a report on the mine accidents that caused many people to lose their lives, opinions of employees as to the safety culture in the mining sectors were indicated as follows: "Cognitive awareness of employees regarding occupational safety is quite low. Due to low cognitive awareness, risk perceptions of employees are low, as well. Being bound to the job and fatalism belief resulting from low socio-economic status hinder employees from questioning the incidents. Trainings on safety and awareness regarding necessity of training and information are not cared so much (Koydemir et al., 2014). The most important step to be taken in order to prevent occupational accidents is undoubtedly to put forth the causes of accidents. These causes can then be eliminated and accidents prevented. The point where fatalism belief is mostly felt is during this phase. Unless a certain occupational accident cannot have been prevented, despite all efforts, someone has to be held accountable for the accident. At this point, it may be quite hard to find out the reasons for the accident because witnesses want to protect their colleagues and themselves. Managers do not want people to discuss that they did not give effective occupational safety training and that employers considered the extra costs involved in giving the training (Woodcock, 1995). Under such circumstances, fatalism can occur as a self-defense mechanism or an excuse for evading the responsibility. Having faced an occupational accident, people with a belief in fatalism tend to find an external reason that they could not personally control (Kouabenan, 1998).

The study of Walster (1966) has revealed that people try to find the responsible or guilty party, especially for accidents with heavy consequences. In addition, Shaver (1970) indicates through Defensive Attribution hypothesis that those who have experienced occupational accidents are prone to react defensively and claim they were not responsible for the accidents. In the study in which he tested this hypothesis on occupational accidents, Salminen (1992) observed those suffering from such accidents associated the causes of the accidents with external factors. Research revealing that people generally link positive incidents with internal reasons and negative ones with external reasons (Wong & Weiner, 1981) confirm this argument.

One of the important research findings is that fatalistic beliefs of employees differ depending on their education levels, ages and departments they work in. According to the results of the CHAID analysis, the variable 'education level' comes first among demographic variables effect on fatalism beliefs of employees. In other words, the education level creates a dominant effect on fatalist opinions of employees regarding occupational accidents. As education levels

of employees increase, their fatalist opinions regarding occupational accidents decrease in a statistically significant way. It was found that employees having graduated from university do not adopt a fatalist approach to occupational accidents. On the other hand, primary school graduates have a fatalist approach to these accidents.

Sarı (2009), in a study in which he examined the effect of education levels of employees in accommodation companies on occupational health and safety issues, revealed that employee training has a very positive influence on occupational safety and health. Aybek et al. (2003), in his study on reasons for occupational accidents that technical personnel in public institutions experienced, observed that 84.4% of the personnel experienced occupational accidents due to unsafe behaviors and that lack of education plays an important role in the occurrence of these accidents. In addition, results of another study (1994) carried out on living conditions of Petrol-İş Union members show that the rate of experiencing occupational accidents and diseases decreases as education levels of employees increase (Yılmaz, 2009). In a research conducted in order to determine the factors effective in the occurrences of occupational accidents in public workplaces, it was revealed that employers not paying sufficient attention to training their employees caused accidents at high rates (78,6%) (Camkurt, 2013). Furthermore, Gyekye (2010), an article on occupational safety management, stated that age has been shown to have an impact on workers' causal explanations for occupational accidents. Older subordinate workers tend to attribute more to external causal factors than their younger counterparts. Niza et al. (2008) found that older and senior workers defined occupational accidents as being caused by external and unexpected events.

SUGGESTIONS

The research finding indicating that employees have less of a fatalist approach to occupational accidents as their education levels increase puts forth in a crystal clear way the importance of training on occupational health and safety in order to avoid these accidents. In order to prevent occupational accidents and provide a healthy and safe working environment, many legal and institutional regulations have been put into force over the years. Nevertheless, the prevention of occupational accidents will only be realized through more comprehensive training and awareness-raising activities, rather than through legal regulations or the founding of necessary institutions in this field (Akalp & Yamankaradeniz, 2013), because it is understood from the results of research that approximately 95% of occupational accidents result from individual-

driven mistakes. Raising public awareness and perception levels as to occupational accident risks is quite important. Research findings in the USA show that 97% of occupational accidents can be prevented on the condition that training on occupational health and safety is organized and appropriate working environments are created (Ayberk et al., 2003).

Considering education institutions, higher education institutions providing vocational training can play the most significant role in training individuals for business life. In order to effectively transfer information and experiences about safety culture, it is essential to adopt a strong occupational health and safety awareness in education institutions (Savaş et al., 2014). It would be beneficial to provide occupational health safety trainings by pedagogues as a compulsory course in educational institutions, aimed at training a qualified work force as a prerequisite of social change and development, starting from primary school and high school and especially in vocational high schools and universities, so as to prevent occupational accidents and provide a healthy working environment.

One of the important factors in dealing with occupational accidents is "safety culture". Providing and developing the concept "safety culture" as a sub-element of organizational culture, and referring to norms, behaviors, values, beliefs, habits that affect the behaviors of employees working in organizations and structures, strategies and practices an organization adopts for improving safety is the primary issue that needs to be focused on in preventing occupational accidents (Aytaç, 2011). The concept 'safety culture' was first used in a report written by the International Atomic Energy Agency (IAEA) after the Chernobyl nuclear accident in 1986 when all possible reasons for the accidents were questioned (Yılmaz, 2014). This report indicated that significant design-based problems, organizational mistakes and infringements of employees played an important role in the occurrence of this accident. In addition, this term was also included in reports prepared after the explosion in 1988 of the Piper Alpha petrol platform located in the North Sea and the Clapham Junction railway disaster that occurred in the same year. The most important point highlighted in these reports about possible reasons for these accidents was the low safety culture level (Dursun, 2013). Both in the Chernobyl accident and other important accidents, "safety culture" became a key factor for explaining the role of individuals in ensuring safety. Establishing a positive and strong safety culture in the organization will make a significant contribution to the extension of safe behaviors within a work environment and prevention of occupational accidents (Gökalp & Yamankaradeniz, 2013).

According to research conducted in Turkey, the most significant deficiency that occupational inspectors have observed is that both employers and employees have not taken safety-related trainings in 88% of workplaces (Yılmaz, 2009). Within this framework, taking into consideration that safety culture represents safe behaviors and beliefs and opinions about safety in the working environment (Yıldız et al., 2015), practices regarding occupational health and safety should primarily focus on employer and senior management.

Employers are responsible for taking and implementing necessary precautions for ensuring the health and safety of employees in work places. The main purpose underlying this responsibility is to prevent occupational accidents and diseases. Taking necessary precautions regarding occupational health and safety, providing training on these issues, inspecting occupational health and safety in the working environment, carrying out risk assessments or having it done, founding an occupational health and safety commission and providing occupational health and safety services are among the most important responsibilities of employers (Çavuş & Akkuş, 2015). In order to establish a safety culture concept in businesses, it is very important that employees embrace this issue, make contributions and take responsibility in this regard, as well as the management in a company. Frankly, it is hard to say whether employees would adopt safety culture with only a few trainings sessions. Therefore, training should be conducted until this issue becomes routine and internalized by employees (Aytaç et al., 2015). Senior management members attending training with employees and motivating them to participate in these trainings and implementing what is learned during these training sessions would contribute to desired outcomes.

It is considered that problems about occupational health and safety can be handled and occupational accidents can be prevented if necessary attention to these issues and cooperation, primarily among government, company, employee, union and the press, is given. This objective can only be achieved on the condition that governments put into force necessary regulations and inspect businesses regularly, that companies create a working environment conducive to an occupational health and safety culture, employees are aware and conscious about occupational health and safety, unions try to raise the awareness and consciousness of their members on these issues and that the press reports the news of occupational accidents when they happen, but also follows up on the accidents and inform the public regularly on these issues.

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