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# EXAMINATION OF OCCUPATIONAL SAFETY SPECIALISTS' OPINIONS ON THE IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY LEGISLATION: CASE OF ÇORUM PROVINCE

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# **EXAMINATION OF OCCUPATIONAL SAFETY SPECIALISTS' OPINIONS ON THE** IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY LEGISLATION: CASE OF CORUM PROVINCE

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#### **ABSTRACT**

Occupational Health and Safety Law No. 6331 is an important law that covers the duties and responsibilities of employees regarding Work Accidents and Occupational Diseases. Employers, occupational safety specialists, workplace physicians and employees must fulfill their obligations specified in the law to ensure that it reaches its aim. In this study, the compliance of employers, workplace physicians, occupational safety specialists, and employees with occupational health and safety regulations outlined in Law No. 6331 was examined through in-depth interviews, a qualitative research method. The study aimed to gather insights from occupational safety specialists regarding the adherence to these regulations. The study findings indicated that occupational health and safety specialists often view their roles as primarily administrative and cost-incurring rather than hands-on. It also revealed that occupational safety specialists exhibit knowledge gaps in their job responsibilities, while occupational physicians rarely fulfill their duties related to identifying occupational diseases. Additionally, employees are often unaware of their role in safeguarding both themselves and their colleagues. The study delves into a comprehensive discussion on potential solutions to address these issues.

Keywords: Occupational safety specialist, Workplace Physician, Employee, Employer, Implementation of occupational health and safety legislation, In-depth interview, Occupational Health and Safety Law No. 6331

# **INTRODUCTION**

Occupational health is a field of science that aims to protect and maintain the physical, mental and social well-being of employees and to prevent or minimize the dangers that may arise from the materials and equipment used in the work area [8]. Occupational safety, on the other hand, includes all the technical studies carried out to eliminate or reduce the risks that may harm health and the hazard arising from the execution of the work [2]. Occupational health and safety represents a multidisciplinary field that collaborates with various industries and connects with disciplines such as medicine, ergonomics, physics, chemistry, technology, economics, and law, among others. [1] The International Labour Organization (ILO) has calculated that approximately 2.2 million individuals lose their lives annually due to workrelated accidents or occupational diseases, and it is possible that these figures are on the rise. Moreover, the ILO approximates that there are about 270 million non-lethal accidents causing injuries worldwide. [17] As work-related accidents and occupational diseases continue to be prominent challenges within the workplace, the significance of occupational health and safety is steadily growing, with increasing importance across social, economic, and technological dimensions [5]. In Turkey, the Occupational Health and Safety Law No. 6331 was issued in the Official Gazette on 30.06.2012 [10]. This law includes various regulations regarding occupational health and safety measures in Turkey as legal obligations. In fact, it is clear that if these obligations, regulated by law, are completely fulfilled, many problems related to occupational health and safety may disappear. Based on the

preliminary insights derived from interviews with occupational health and safety specialists, it was apparent that their salaries are funded by employers. The specialists also pointed out that implementing health and safety measures can be seen as an added financial burden for employers, there is a knowledge gap among the workers, and certain laws or regulations in Turkey tend to be more theoretical than practical when it comes to their application on-site. This study addressed the extent to which the occupational health and safety law numbered 6331 is implemented in Turkey. It is important to determine which articles of the Occupational Health and Safety Law No. 6331 are fully or partly implemented and which articles are not implemented at all, since this may direct individuals and institutions to take measures to protect workers' health and reduce work accidents. A comprehensive discussion has been generated regarding the perspectives of occupational safety specialists concerning the proper implementation of occupational health and safety practices by occupational health and safety specialists, employers, employees, and workplace physicians, as well as the shortcomings within the legal framework.

# Aim of the Study

The Occupational Accident and Occupational Disease Statistics between 2012 and 2020 shows that occupational accidents and diseases are increasing [12]. Various datasets and statistical analyses [12, 19, 22] prompt inquiries regarding the integration and comprehensive enforcement of occupational health and safety laws, including Occupational Health and Safety Law No. 6331, within the working environment. As such, this study seeks to assess the extent to which occupational health and safety practices align with legal provisions and pertinent regulations.

# Method

The research utilized the semi-structured in-depth interview method, which is one of the qualitative research methods [18,21]. This interview method aimed to reveal the participants' thoughts on the subject [18, 21]. A questionnaire consisting of 46 questions was developed by the researchers to carry out the in-depth interviews. It included the articles of the Occupational Health and Safety Legislation No. 6331 and was administered to the occupational safety specialists. New questions that emerged during the course of interviews were also posed to the participants. During the interviews, when a participant felt uneasy about a question, that question was skipped and the interview continued with other questions. The researcher had the opportunity to systematically ask in-depth and detailed questions starting from general questions, and it was ensured that the participants focused completely on the subject [21].

The interviews were audio and video recorded, and the necessary ethics committee permissions and informed consent of the participants were obtained before the study. During the interview, the researcher asked questions other than the questions in the questionnaire so that the participants could elaborate on their responses. The researcher made brief notes during the interviews, occasionally pausing the video recording to capture additional insights from participants' non-verbal cues such as gestures, facial expressions, and body language, in addition to their verbal responses [3,18].

# **Population and Sample**

The population was determined as the business sector in the province of Corum, and no sector limitation was imposed to reveal the situation in general. In qualitative research approaches, the sample size is typically more limited compared to quantitative research methods. [20] In qualitative studies, instead of large samples, samples that meet the objectives of the research and contribute to data saturation are selected. Saturation is defined as the stage where the process of collecting data ceases to provide fresh or pertinent information. [20] For this reason, the quality and knowledge of the individuals in the sample about the subject are taken into consideration rather than the quantity of the individuals [23]. The goal of this study is to obtain in-depth insights from a limited sample size with a strong understanding of the subject matter. In qualitative research, there are no strict guidelines regarding the precise number of interviews required [18]. The research received ethical approval from a relevant committee, and researchers have the flexibility to determine the sample size based on the purposive sampling method. In this study, conducting interviews with 10 occupational safety specialists was deemed sufficient. However, during the data collection phase, after interviewing approximately 6 specialists, the researchers observed that participants were providing consistent or very similar responses. To enhance the representativeness of the population, the researchers decided to continue the interview process, ultimately including all 10 participants in the study [23].

# **Data Collection Tools**

Measurement tools used in the data collection phase were the 46-item questionnaire containing the articles of the Law No. 6331, approximately 45 minutes of video recordings or audio recordings of the interviews with each of the 10 occupational safety specialists selected as the sample, and the additional questions that arose during the course of the interviews.

# Statistical Method and Evaluation Process

Frequency distributions were obtained using the SPSS program in the analysis. In the evaluation and interpretation of the data, common answers were determined and classified by comparing the answers given to the questionnaire items or additional questions during the interview. In addition, the detailed analysis feature of the indepth interview method was employed to interpret different answers, opinions or attitudes.

# **Theoretical Framework**

# Obligations of Employers According to the Occupational Health and Safety Law No. 6331

In accordance with the Occupational Health and Safety Law No. 6331, employers are mandated to prevent occupational hazards by implementing various precautions such as training and information, organizational adjustments, provision of necessary tools and equipment, and adapting health and safety measures to evolving conditions. Furthermore, employers are responsible for continuous monitoring and inspection to ensure compliance with occupational health and safety protocols within the workplace and for taking appropriate actions to rectify any non-compliance. Additionally, employers must either perform a risk assessment themselves or have it conducted, employees' suitability for positions concerning health and safety, and implement necessary measures to restrict access to areas posing potential risks to life and safety, except for individuals who have received comprehensive information and instructions [10].

Employers, while fulfilling their responsibilities, can seek advice from external specialists and organizations. Nevertheless, it is important to note that seeking such services does not exempt

employers from their duties. It is worth emphasizing that the obligations of employees in terms of occupational health and safety should not be seen as diminishing the responsibilities of employers. Additionally, it is not acceptable for employers to transfer the costs associated with occupational health and safety measures to their employees, as stipulated in reference [10].

According to the law, one of the important obligations of employers is to make a risk assessment or have a risk assessment done [9]. Employers can carry out risk assessment, but this does not eliminate employers' obligation to ensure occupational health and safety in the workplace. If employers assign a person or a group of people to carry out the risk assessment, they are also obliged to provide all necessary information and documents [9].

Based on the result of the risk assessment, providing such obligations as protective equipment or equipment, taking precautions, evaluating working styles, renewing production methods, improving the protection of employees from occupational accidents, and performing necessary control, measurement, inspection or research activities may arise. Employers have the duty to guarantee that the required inspections, assessments, analyses, and research are conducted to enhance employees' health and safety protection and identify the hazards they may encounter in the workplace [10].

In line with the Occupational Health and Safety Law No. 6331, some important obligations of employers are related to emergency plans. These obligations are taking preventive and restrictive measures by pre-evaluating the emergencies that may occur, making the necessary measurements and evaluations for the emergencies that may occur, preparing emergency plans, assigning a sufficient number of people who are trained in prevention, protection, evacuation, firefighting and first aid, organizing training and exercises, ensuring that teams are always ready, and contacting organizations outside the workplace when necessary. The responsibilities of assigned employees regarding emergencies do not relieve employers of their obligations [10,13].

Furthermore, according to the law, employers bear the significant responsibility of educating their workforce. This entails the provision of occupational health and safety training to employees, both prior to commencing their duties and throughout their employment. Furthermore, it encompasses the scenario of workplace equipment modifications, the introduction of new technology, or a change of work environment. It is essential for employers to develop and implement training programs while continuously adapting them to evolving risks and demands. Regular and recurring training sessions should be conducted, offering appropriate facilities,

tools, and equipment. Employers must ensure that all employees actively engage in these training initiatives and furnish certificates of attendance upon their completion [10,11].

#### **Obligations** of Occupational Safety Specialists According to the Occupational Health and Safety Law No. 6331

As specified under the Law No. 6331, the responsibilities of occupational safety specialists encompass advisory functions. These include tasks like the strategic planning, organization, and execution of occupational safety efforts. Additionally, they are tasked with providing recommendations to the employer concerning matters such as the selection, procurement, usage, maintenance, preservation, and examination of personal protective equipment. They are obliged to formally communicate safety measures to be taken to the employer in writing. Furthermore, they are required to conduct inquiries into the root causes of workplace accidents and occupational illnesses, making suggestions to the employer regarding preventative actions to avert future occurrences. In cases of events that may not result in fatalities or injuries but have the potential to endanger employees, equipment, or the workplace, they should investigate the causes and provide recommendations to the employer [14].

According to the regulations stipulated in the law, occupational safety specialists bear specific responsibilities related to risk assessment and workplace surveillance. In terms of risk assessment, their duties encompass active participation in risk assessment procedures and subsequent studies, wherein they offer recommendations to the employer regarding health and safety measures to be adopted based on the outcomes of these assessments [14]. Simultaneously, they are obligated to oversee the working environment, strategize the scheduling of periodic maintenance, inspections, and assessments within the workplace, ensuring their proper execution. Additionally, these specialists actively contribute to prevention efforts concerning accidents, fires, or explosions in the workplace by providing suggestions to the employer. They are involved in upholding occupational health and safety protocols, engage in the development of contingency plans for contingencies like natural disasters, accidents, fires, or explosions, verify the execution of relevant periodic training sessions and drills, and consistently supervise and confirm the implementation of emergency plans [14].

In accordance with the guidelines in the law, occupational safety specialists are entrusted with specific duties encompassing training, information dissemination, and reporting, as well as collaborative efforts with relevant units. These responsibilities entail the formulation of occupational health and safety training plans for employees, aligning them with pertinent legislation, and seeking approval from the employer. They are further responsible for conducting these training sessions, crafting an annual evaluation report in collaboration with the workplace physician, which compiles the results of occupational health and safety endeavors and workplace surveillance. In addition, specialists work closely with the employer to prepare informational activities for employees, gain approval for their implementation, and subsequently ensure their execution. They are also tasked with creating occupational health and safety instructions and work permit procedures where deemed necessary, with a focus on gaining employer approval and verifying adherence to these protocols. Moreover, they are responsible for relaying the latest information concerning occupational health and safety issues, as specified by the Ministry, to the Occupational Health and Safety clerk. Furthermore, occupational safety specialists engage in cooperative endeavors with pertinent departments, evaluating work-related accidents and occupational diseases in conjunction with the workplace physician. This collaboration extends to the development of preventive action plans to avert the recurrence of hazardous situations and vigilantly monitoring the implementation of these precautionary measures. They are also responsible for formulating the annual work plan, encompassing activities related to occupational health and safety for the subsequent year, within the workplace. Their work is conducted in close cooperation with the occupational health and safety committee and extends to lending support to the employee representative and auxiliary staff [14].

#### of Workplace **Physicians** According to the Occupational Health and Safety Law No. 6331

In accordance with the Occupational Health and Safety Law No. 6331, workplace physicians are bound by a set of responsibilities that encompass guidance. These duties encompass providing guidance to employers on a range of factors, such as the health surveillance of employees, workplace environment monitoring, and workspace design, including considerations related to job tasks and workplace modifications. They also play a vital role in planning, organizing, and executing work tasks, which includes selecting appropriate materials and making recommendations to ensure the adherence to occupational health and safety regulations and general workplace health guidelines when selecting personal protective equipment. Workplace physicians are further responsible for suggesting activities aimed at enhancing the health of employees in the workplace and actively participating in occupational health and safety studies. They carefully consider the physical and mental capabilities of employees concerning ergonomic and psychosocial risks, seeking to ensure a harmonious alignment between job responsibilities and the workforce. Moreover, they

conduct assessments to safeguard employees against stress-inducing factors within the work environment and integrate research findings into their guidance efforts. These professionals are continuously monitoring the overall hygiene conditions of various workplace areas, including canteens, cafeterias, dormitories, nurseries, breastfeeding rooms, changing rooms, showers, and toilets. Workplace physicians also provide employees with advice on their dietary needs and the availability of suitable drinking water. Additionally, they investigate the root causes of workplace accidents and occupational diseases, offering recommendations to employers to prevent their recurrence. When events arise with the potential to damage equipment or the workplace, workplace physicians investigate these circumstances and provide written suggestions and notifications to the employer regarding the necessary occupational health and safety measures

Furthermore, as prescribed by the law, workplace physicians have specific duties related to risk assessment. These obligations encompass active participation in risk assessment studies and practices in the realm of occupational health and safety. They play a key role in advising employers on the implementation of health and safety measures following risk assessments. Additionally, they are tasked with monitoring and providing protection for groups requiring specialized policies, which includes pregnant or breastfeeding women, individuals under 18 years of age, those diagnosed with occupational diseases or at risk, employees with chronic medical conditions, the elderly, people with disabilities, and those affected by alcohol, drug, or substance addiction. This also extends to individuals who have experienced more than one occupational accident [15].

In accordance with the law, workplace physicians responsibilities pertaining to health surveillance. These obligations encompass several aspects, including notifying employees about employment and periodic health check-ups, securing their consent for these assessments, and administering the periodic health examinations. Workplace physicians are also responsible for monitoring the health status of employees, particularly those working night shifts. They must rigorously evaluate the outcomes of employment and periodic health examinations, and any other necessary tests to ascertain whether employees are fit for their designated roles. This includes the preparation of comprehensive reports after conducting essential health assessments for the placement of employees who require special considerations. These special cases may involve employees diagnosed with occupational diseases, those with chronic health conditions, individuals battling substance abuse, and those who have encountered multiple work-related accidents.

Additionally, workplace physicians are tasked with conducting repeat health assessments for other employees in the workplace environment when an individual is diagnosed or prediagnosed with an occupational disease. They are required to investigate potential links between employee absenteeism due to health issues and workplace-related health hazards. Whenever deemed necessary, workplace physicians must design and propose measures concerning the work environment. They are also responsible for obtaining approval from the employer and subsequently evaluating the results to ensure the well-being of the employees. Moreover, they are in charge of overseeing return-to-work examinations, providing necessary hygiene training to manage the spread of communicable diseases, and conducting preventive and immunization initiatives. Further duties encompass maintaining detailed records related to workplace surveillance and collaborating with occupational safety specialists to assess occupational accidents and diseases.

Workplace physicians are also responsible for creating action plans to prevent the recurrence of hazardous incidents and formulating an annual work plan that aligns with their responsibilities and is subject to approval by the employer. To ensure compliance with the regulation concerning roles, authorities, responsibilities, and training of workplace physicians and other health personnel, they prepare annual evaluation reports. Additionally, they are responsible for verifying the expiration of medical reports indicating the suitability of temporarily assigned employees and subcontractor employees for their respective roles. Workplace physicians must conduct periodic examinations within specific intervals, depending on the job category. These intervals consist of assessments every five years for positions classified as less dangerous, every three years for roles in the dangerous category, and annual examinations for jobs considered very dangerous. For employees in special categories such as children, young individuals, and pregnant workers, workplace physicians are required to perform these examinations six times a year. Nevertheless, these timeframes may be adjusted to shorter periods should workplace physicians deem it necessary

In line with the law, workplace physicians are entrusted with specific responsibilities concerning education, information, and reporting. These obligations encompass various facets, including the formulation of plans for occupational health and safety training in adherence to pertinent legislation. These plans are presented for approval by the employer. Workplace physicians are further tasked with implementing or overseeing these training programs. They are also responsible for coordinating the provision of first aid and emergency response services within the workplace, along with imparting requisite training to personnel, as dictated by the legislation. Workplace physicians play an essential role in providing education to managers, members of the occupational health and safety committee, and employees. This education encompasses a broad spectrum, encompassing general health, occupational health and safety, hygiene, the hazards associated with the use of addictive substances, personal protective equipment, and collective protection methods. It is vital that this training remains consistent and uninterrupted.

Moreover, workplace physicians are required to inform employees about the risks prevailing within the workplace, health surveillance, employment periodic procedures, and examinations. Collaboration with occupational safety specialists is essential, and they jointly prepare an annual evaluation report, which includes the recording of results from occupational health and safety studies and health surveillance, all in accordance with the legal framework. To uphold these obligations, workplace physicians must also communicate with the General Directorate regarding matters concerning occupational health and safety, as specified by the Ministry. This communication is facilitated through the occupational health and safety clerk system [15].

According to the law, workplace physicians are mandated to engage in cooperative efforts with pertinent entities. These obligations encompass several crucial facets, which include assessment of measurement outcomes, coupled with recommendations for conducting necessary measurements within the scope of workplace environment surveillance. This cooperation is executed hand in hand with occupational safety specialists. The obligations extend to collaborating with relevant stakeholders to facilitate the delivery of occupational health and safety training within the workplace. Workplace physicians also actively participate in the evaluation of analyses, practices, as well as advancements in technology and equipment aimed at averting work-related accidents and occupational diseases. They play a pivotal role in contributing to the development of programs intended to enhance existing practices. Collaboration with hospitals authorized to issue Health Board reports regarding occupational diseases, as outlined by pertinent regulations, is another important duty. Moreover, workplace physicians engage in the rehabilitation of workers who have experienced work-related accidents or have been diagnosed with occupational diseases. This process necessitates close cooperation with relevant units. Active participation in studies related to the field of occupational health and safety is part of their duties. Furthermore, they provide invaluable assistance to occupational safety specialists in crafting occupational health and safety instructions, along with work permit procedures, whenever the need arises. These professionals are actively involved in preparing the annual work plan, encompassing activities related to occupational health and safety for the following year, alongside the occupational safety specialist. In this collaborative environment, they also offer support to employee representatives and support staff within the workplace [15].

# Obligations of Employees According to the Occupational Health and Safety Law No. 6331

In accordance with Occupational Health and Safety Law No. 6331, employees bear specific responsibilities. These duties encompass refraining from actions that may jeopardize the well-being and safety of their fellow colleagues. Additionally, employees are expected to operate machinery, devices, tools, equipment, hazardous materials, transport apparatus, and other production instruments in strict adherence to established guidelines. Moreover, they should correctly utilize safety equipment and personal protective gear, ensuring their own safety as well as that of others. If employees encounter any health or safety risks within the workplace or identify shortcomings in protective measures, it is their obligation to promptly notify either the employer or the employee representative. Following such reports, employees are also required to collaborate with the employer and the employee representative to rectify any deficiencies and violations of the legislation discovered during inspections. Cooperation with the employer and employee representative is a key aspect of the employees' responsibilities, especially when it comes to upholding occupational health and safety within the scope of their duties [10].

# Other Points in the Occupational Health and Safety Law No. 6331

This section summarizes risk assessment, workplace emergency, occupational health and safety training, employee representatives and personal protective equipment within the scope of the Occupational Health and Safety Law No. 6331.

# **Risk Assessment**

As mandated by the Law No. 6331, the process of risk assessment should undergo regular updates based on the level of workplace risk. Specifically, workplaces categorized as very dangerous, dangerous, and less dangerous necessitate renewal at intervals of no longer than two, four, and six years, respectively. Furthermore, the risk assessment must also undergo partial or complete revision under the following circumstances: when there is a relocation of the workplace or structural modifications within the premises; modifications in the technological infrastructure, materials, or equipment used; alterations in the production procedures; instances of occupational accidents, occupational diseases, or near-miss incidents: legislative changes pertaining to environmental safety thresholds; results of workplace measurements and health surveillance indicating a need for revision; and the emergence of new hazards external to the workplace but with the potential to impact the workplace [13].

# Emergency Response and Evacuation methods according to the regulation on Emergencies at Workplaces

While establishing emergency response and evacuation methods, the provisions of the Regulation on Fire Protection of Buildings, which was put into effect with the Council of Ministers Decision dated 27.11.2007 and numbered 2007/12937, are taken into consideration. The employer creates the emergency teams in the workplaces and classifies them as Fire team, Rescue team, Protection team, and First aid team. The employer assigns support personnel to each of the teams according to the hazard class of the workplace. At least one specially equipped and trained employee is assigned for up to every 30 employees in workplaces in the very hazardous class, for up to every 40 employees in the workplaces in the hazardous class, and for up to every 50 employees in the workplaces in the less hazardous class. In workplaces with less than 10 employees, it is sufficient to assign at least one specially trained and appropriately equipped employee as a support staff for all fire, rescue and protection teams [13]. For the first aid teams to be formed, it is obligatory to have one first aider for every 20 employees in less dangerous workplaces, one first aider for every 15 employees in dangerous workplaces, and one first aider for every 10 employees in very dangerous workplaces. Within the scope of the Ministry of National Education training program, teachers to provide first aid training are required to receive 16 hours of first aid training [6].

One of the subjects in Law No. 6331 is the practice process. In order to monitor the implementation steps of the prepared emergency plan regularly and to ensure its applicability, drills are held at the workplaces at specified intervals; they are inspected and reviewed, and necessary corrective and preventive measures are taken. After the drill is carried out, the drill form, which includes the date of the exercise, the deficiencies observed and the arrangements to be made in line with these deficiencies, is filled in. As a result of the drill, emergency plans are reviewed and necessary corrections are made according to the deficiencies, if any, and the experience gained [13].

Another issue regulated in the Occupational Health and Safety Law No. 6331 is the recording and reporting of work accidents and occupational diseases. According to the law, the employer is obliged to keep a record of all work accidents and occupational diseases, to make the necessary examinations and prepare reports about them, and to examine the incidents that occur in the

workplace and cause damage to the workplace or work equipment, but not cause injury or death, and to prepare the relevant reports. In addition, the employer has to report occupational accidents within three working days after the accident, and within 15 working days from the date of learning about occupational diseases notified to him by the health service providers or workplace physician. Then, the workplace physician or health service providers refer the cases they have pre-diagnosed with occupational diseases to the health service providers authorized by the Social Security Institution [10].

Another important point in the Occupational Health and Safety Law No. 6331 is occupational health and safety training. The employer should ensure that employees receive on-the-job training before starting to work. These trainings can be given by the employer or by knowledgeable and experienced employees assigned by the employer. On-the-job training should be based on practice and ensure the protection of the employee against dangers and risks. The training to be given before starting work is organized for at least two hours for each employee. The periods spent in these trainings are not counted as the basic training periods. Trainings on risks that may arise due to changes in workplace or job, change of work equipment, and application of new technology are also given. Additional training and refresher training are given to those who return to work after a work accident or occupational disease, who are out of work for more than six months for any reason, at least once a year in workplaces in a very dangerous class, at least once in two years in workplaces in a dangerous class, and at least once in three years in workplaces in a low hazard class. The employer is responsible for checking the documents showing that the employee has completed basic training at the previous workplace [11].

# Occupational Health and Safety Training **Periods**

Employees are required to undergo fundamental training sessions scheduled at regular intervals, which consist of a minimum of eight hours for workplaces with lower levels of risk, a minimum of twelve hours for workplaces classified as dangerous, and a minimum of sixteen hours for workplaces categorized as very dangerous [11].

# **Employee Representatives at Workplaces**

According to the Occupational Health and Safety Law No. 6331, taking into account the risks in different parts of the workplace, there must be one employee representative in the workplaces with 2 to 50 employees, 2 representatives in the workplaces with 51 to 100 employees, 3 representatives in the workplaces with 101 to 500 employees, 4 representatives in the workplaces with 501 to 1000 employees, 5 representatives in

the workplaces with 1001 to 2000 employees, and 6 representatives in the workplaces with 2001 and over employees [10].

The employee representative is elected among the employees in case there is no authorized union in the workplace. In the event that the employee representative is determined by election, s/he must be announced at the workplace by the employer. Employer may appoint a representative in cases where election cannot be made [4,10].

Employeerepresentative is authorized to participate in the work related to occupational health and safety; to monitor the work; to request measures to eliminate the source of danger or to reduce the risk arising from the danger; to make proposals; and to represent employees. As they carry out their duties, the rights of employee representatives and support staff cannot be restricted. Some opportunities are provided by the employer for them to fulfill their duties. The employee representative is obliged to keep confidential the professional secrets and the private information of employees [4,10].

# **Personal Protective Equipment**

All personal protective equipment should be suitable for preventing the related risk without posing any additional risks and for the conditions in the workplace, the ergonomic requirements and health status of the user. Personal protective equipment is utilized for the purpose of offering collective safeguards in circumstances where technical measures, work arrangements, and work practices are insufficient to prevent or curtail risks. It serves as a means to avert work-related accidents or occupational diseases, safeguard workers from health and safety hazards, and enhance overall health and safety conditions. Employers prioritize implementing collective safety measures before resorting to personal protective measures [16].

# Findings

This section presents the answers given by 10 selected occupational safety specialists to the questionnaire items prepared in accordance with the Occupational Health and Safety Law No. 6331.

The opinions of occupational health and safety specialists regarding the employer's obligations are presented in SF 1 (SF: Supplementary File).

As seen in SF 1, nine occupational safety specialists stated that employers do not reflect the costs of occupational health and safety measures to their employees. This finding clearly demonstrates that employers fulfill their obligation not to pass on the costs related to occupational health and safety to employees.

According to SF 1, 3 out of 10 occupational safety specialists stated that employers do not have sufficient knowledge about occupational health and safety, and they think that this task must be performed by occupational safety specialists. This finding indicates that employers do not fulfill their obligations when they believe that occupational safety specialists should assume the responsibility of occupational health and safety. Frequencies in the other responses for not fulfilling the obligations of employers are only 1. These small frequency values show that occupational safety specialists think that employers fulfill their obligations to a great extent. However, according to SF 1, employers fulfill their obligations only in matters for which they can be penalized, and the occupational safety specialist is responsible for occupational health and safety.

One of the important obligations in the field of occupational health and safety is risk assessment. The frequency distributions related to the obligations of occupational safety specialists to make a risk assessment are presented in SF 2 and SF 3 in detail.

As seen in SF 2, all the occupational safety specialists stated that risk assessment is made in the workplaces they serve. This finding can be interpreted as the general fulfillment of the duty of risk assessment in workplaces. However, a more important issue is how the risk assessment is made or whether risk assessment is made according to the Law No. 6331. In this context, according to SF 2, 6 out of 10 occupational safety specialists stated that employers have no knowledge of occupational health and safety, and 3 of them stated that employers only sign the relevant report without looking at the risk assessment. Occupational safety specialists further stated that employers see risk assessment only as the job of occupational safety specialists and they can only participate in risk assessment when there is a significant risk. These findings show that employers are generally not knowledgeable in risk assessment and see this job only as a paper work. This is a negative result in terms of the employer's risk assessment obligation. While the risk assessment should be done together with the risk assessment team according to the law, 7 out of 10 occupational safety specialists stated that the risk assessment was carried out directly by the occupational safety specialists (SF 2). Only one occupational safety specialist stated that the risk assessment is done by the risk assessment team. These findings revealed that risk assessment is not carried out by the risk assessment team as stated in the law, and it can be said that the occupational safety specialist and the risk assessment team do not fulfill the risk assessment task in accordance with the law.

According to the law, when a serious health or safety problem is encountered, the situation of the employees should be conveyed directly to the employer. However, according to SF 2, approximately 8 out of 10 occupational safety specialists stated that the situation was not communicated directly to the employer. This

finding is important in terms of showing that employees do not have sufficient level of knowledge and awareness on this subject. According to the law regarding the liabilities of the employees, employees should use the production tools and machines in the workplaces in accordance with the rules and instructions. However, as seen in SF 2, 9 out of 10 occupational safety specialists stated that employees do not use production tools such as machinery and equipment in their workplaces in accordance with the rules. This suggests that serious loss of property and life may occur. According to the law numbered 6331, an important obligation of employees is not removing the protective equipment from the production tools. As seen in SF 2, all 10 occupational safety specialists stated that employees remove protective equipment from production equipment while they are working. Employees state that they remove protective equipment from machinery and equipment as the safety equipment prevents their work, which shows that employees can act unconsciously and thoughtlessly in protecting the health and safety of themselves and others around them. This also reveals that there is not enough control over employees.

When asked what information should be collected while identifying hazards at the risk assessment stage of the Law No. 6331, only 2 out of 10 occupational safety specialists gave partially correct answers (SF 3). These partially correct answers include observing the process of the workplace, controlling the product entry and exit, getting the list of the machines used in the workplace, looking at the input and output of the chemicals, examining the storage areas, and checking all the tools and equipment. However, as seen in SF 3, 5 out of 10 occupational safety specialists stated that they collect information in a way that does not comply with the law. The information collected by occupational safety specialists are observing the events that the employees consider dangerous, visiting the field, checking the machines, checking the emergency exit doors, receiving information from the employee representative, getting information about the previous occupational accidents, paying attention to the main sources of the hazards, collecting information about electricity and fire, and trying to understand the dangers that may come from neighboring businesses.

Although there are activities performed to reduce occupational health and safety hazards, they can be considered partially correct and they do not fully cover the activities required by the Occupational Health and Safety Law No. 6331 and the Occupational Health and Safety Risk Assessment Regulation. In addition, one occupational safety specialist stated that the risk assessment is made on paper by copying and pasting the previous risk assessment report from the computer or by updating the previous risk analysis to a certain extent. These findings reveal that the occupational safety specialists did not or could not make the risk assessment in accordance with the Law No. 6331 and that some risk analyses were made only on paper. Occupational safety specialists and perhaps their stakeholders also stated that they do not collect information in accordance with the law on risk assessment. For the majority of the occupational safety specialists (8/10), occupational health and safety measures are not taken in case of a negativity about risk assessment and according to the results of the risk assessment. This finding makes us think that risk assessment is done on paper and the employer and the occupational safety specialist do not fulfill their responsibilities in this regard to a large extent.

SF 3 shows that according to 10 occupational safety specialists, risk assessment is renewed when required in the workplaces they serve, which is a positive result in terms of the application of Law No. 6331. It is also noteworthy that the job of the occupational safety specialist or the employer to fully perform the task of renewing the risk assessment is also a legal obligation that the state controls, and probably this task is done on paper.

The frequency distributions of the occupational safety specialists' opinions on the questions regarding the knowledge and responsibilities of occupational safety specialists are given in SF 4.

As seen in SF 4, 5 out of 10 occupational safety specialists have the misconception that their main duty is identification and recommendation, which does not comply with the law numbered 6331. This finding shows that nearly half of the occupational safety specialists have a significant lack of knowledge, as they think that their main duty is only identification and recommendation. Although not included in the Occupational Health and Safety Law No. 6331, occupational safety specialists also believe that they have responsibilities such as preventing work accidents in the workplace, ensuring that employees work in a comfortable working environment, and improving themselves. These findings show that the majority of occupational safety specialists (7/10) do not exactly know about their duties, authorities, and responsibilities specified in the law. Only 2 occupational safety specialists in the study stated that they are aware of their duties specified in the law, such as providing consultancy and guidance against any danger, making risk analysis, keeping records in the certified report, and informing the employer in case of emergency. These findings show that the vast majority of occupational safety specialists do not fully know their main duties, which is a remarkable negative result.

As seen in SF 4, 4 out of 10 occupational safety specialists stated that they investigated the causes of the accident by conducting root-cause analysis in accordance with the law numbered 6331, and

informed the employer by writing the results in the certified report. In addition, it has been stated that the negative situations are not only caused by the occupational safety specialists themselves, but also by the indifference of the employer. These findings are important in terms of showing that occupational safety specialists do not fulfill their duties of informing the employer about accidents and occupational diseases sufficiently.

SF 4 shows that 6 out of 10 occupational safety specialists make recommendations to the employer in accordance with the law. This finding can be considered as a positive result in that more than half of the occupational safety specialists fulfill their duty of making recommendations to the employer regarding the incidents that have the potential to harm the employees.

When SF 4 is examined, it is understood that all of the 10 occupational safety specialists work on a training plan in accordance with the law, and 8 of them are in cooperation with the employee representatives and support staff. This finding is a positive one in terms of showing that occupational safety specialists fulfill their duties of training and cooperating with employee representatives and support staff to a large extent.

The frequency distribution of the opinions of the occupational safety specialists regarding the duties and responsibilities of the workplace physician is given in SF 5.

SF 5 shows that according to all the occupational safety specialists, workplace physicians do not fulfill any of their duties in the law. Nine occupational safety specialists stated that the duties of occupational physicians are the same as the duties of the occupational safety specialists in the law, and they also made a clear criticism that occupational physicians do not fulfill almost any of their duties.

Another important finding in SF 5 is that according to 8 occupational safety specialists, workplace physicians do not fulfill the duty of informing the employer by investigating the causes of occupational accidents and diseases, and 9 specialists stated that workplace physicians do not fulfill their duty of making suggestions to the employer regarding the events that do not cause loss of life and property in the workplace, but have the potential to harm the workplace and the employees. 9 participants clearly stated that workplace physicians do not fulfill their duty of planning training, and 8 participants said that physicians do not fulfill their duty of cooperation with employee representatives and support staff. In addition, all the occupational safety specialists in the study reported that workplace physicians perform health surveillance and periodic tests. These findings indicate that according to occupational safety specialists, workplace physicians do not fulfill almost any of their duties other than health surveillance of employees. One of the important findings is while the main task of the workplace physician is to diagnose the occupational diseases of the employees, almost all of the occupational safety specialists (9/10) stated that workplace physicians do not fulfill this main duty.

The frequency distribution of the occupational safety specialists' opinions on the questions related to the employee representative are given in SF 6.

As seen in SF 6, all the occupational safety specialists stated that there is an employee representative in the workplaces they serve. Thus, it is seen that the obligation to have an employee representative in the workplaces according to the law numbered 6331 is fully met. However, 7 occupational safety specialists stated that the employee representatives were appointed by the employer. In other words, there was no election process. Other negative findings are that the majority of occupational safety specialists do not report the dangers and risks in the workplace to the employer on behalf of the employees, and the employee representatives do not participate in occupational health and safety studies. These findings indicate that employers only fulfill the legal obligation of assigning an employee representative on paper, and employee representatives do not fulfill their duties to a large extent.

The frequency distribution of the opinions of the occupational safety specialists regarding the questions on health and safety indicators is given in SF 7.

SF 7 shows that according to all 10 occupational safety specialists, health and safety indicators are used in the workplaces they serve and employees are trained on health and safety indicators. These findings indicate that health and safety indicators are used in workplaces and relevant trainings are given.

The frequency distribution of the opinions of occupational safety specialists on questions regarding occupational accidents and diseases is given in SF 8.

As seen in SF 8, all 10 occupational safety specialists stated that occupational accidents and occupational diseases occurring in their workplaces are recorded. This finding shows that the duty of recording work accidents and occupational diseases in the workplaces is fulfilled.

The frequency distributions of the opinions of occupational safety specialists on questions about personal protective equipment are given in SF 9 and SF 10.

As seen in SF 9, only 2 occupational safety specialists reported that personal protective equipment is used in their workplace. This finding shows that there are problems in the use of personal protective equipment in the workplace. The occupational safety specialists stated that they struggle about the use of personal protective equipment as many employees do not want to use personal protective equipment, and occupational safety specialists keep the necessary minutes and ensure that administrative penalties are applied. Employees have problems in using personal protective equipment. Some employees use it, while some do not. Although occupational safety specialists recommend purchasing personal protective equipment, they stated that some employers do not buy the equipment as they consider purchasing personal protective equipment as an extra financial burden. Nine occupational safety specialists stated that their personal protective equipment was purchased by the employer and stated that there was no violation of the law in this regard.

As seen in SF 9, 3 occupational safety specialists stated that there is a CE mark on personal protective equipment. The findings in SF 9 suggest that the rate of use of personal protective equipment may be approximately 50%. It can be said that some employers do not prefer CE-marked products due to the high cost. Moreover, 8 occupational safety specialists stated that the personal protective equipment is not stored in healthy conditions and employees do not pay attention to this issue.

According to the Occupational Health and Safety Law No. 6331, it is necessary to take both collective protection measures and personal protective measures in the workplaces. As seen in SF 10, 9 out of 10 occupational safety specialists stated that employers avoid collective protection measures and take personal protection measures because of the high cost.

As seen in SF 10, 9 out of 10 occupational safety specialists stated that when personal protective equipment is broken, it is not immediately replaced with a new one. This finding is a result that is against the law numbered 6331. 6 out of 10 occupational safety specialists stated that employers are not notified by employees to replace the broken personal equipment with a new one. These two findings are compatible with each other. In general, the rate of timely notification of defective personal protective equipment to the employer is low, and defective personal equipment is not immediately replaced by the employer, even if timely notification is made.

In addition, all the occupational safety specialists in the study stated that employees endanger the health and safety of themselves or other employees. It is understood that they can endanger themselves and other employees with unconscious behaviors such as jokes among employees or smoking in dangerous areas.

The frequency distributions of the occupational safety specialists' opinions on questions about occupational health and safety training are given in SF 9 and SF 10.  $\,$ 

SF 10 shows that according to all the occupational safety specialists in the study, employees are given occupational health and safety training and these trainings are given in all the subjects specified in the law. This finding is important in terms of showing that occupational safety specialists fulfill their duties in the occupational health and safety trainings. However, 6 occupational safety specialists stated that they gave fewer trainings than specified in the legislation. This negative situation seems to stem from the fact that according to the occupational safety specialists, employers do not prefer to allocate the working hours of their employees for training.

# **Conclusion and Recommendations**

Although the Occupational Health and Safety Law No. 6331 has some deficiencies, it is an important law that includes duties and responsibilities for reducing work accidents and occupational diseases.

In this study, we conducted an in-depth interview with occupational safety specialists and revealed their opinions on whether employers, occupational safety specialists, workplace physicians, employees and workplace representatives carry out activities in accordance with the occupational health and safety legislation numbered 6331 or not.

Employers are seen as the main responsible for the implementation of the Occupational Health and Safety Law No. 6331, and they have many duties and responsibilities. According to the opinions of occupational safety specialists included in our research, the duties and responsibilities of employers in the occupational health and safety legislation, which they fulfill largely or completely: Not passing on occupational health and safety costs to employees, fulfilling their general obligations, having an employee representative or representatives in the workplaces, To ensure the use of health and safety signs in workplaces, to provide training to employees regarding the use of health and safety signs, to take personal protective measures, to ensure the renewal of risk assessment, to ensure that occupational accidents and occupational diseases occurring in the workplace are recorded and to ensure that personal protective equipment is provided to employees, are listed as. According to the occupational safety specialists, employers cover the expenses arising from occupational health and safety. Other duties performed by employers are those that require signatures, that are carried out on paper, and that can be controlled through periodic audits. Thus, it can be said that employers largely or completely fulfill their duties and responsibilities that should be done on paper. It can also be stated that employers do not want to waste time on occupational health

and safety as they see it as a chore.

According to the occupational safety specialists, there are many tasks that employers largely do not fulfill or never fulfill. According to occupational safety specialists, the duties that employers do not fulfill to a large extent or at all are: To have knowledge in risk assessment, to ensure that employees use protective equipment, to take occupational health and safety measures in the workplace according to the risk assessment results, to appoint employee representatives by election, to involve employee representatives in occupational health and safety activities. ensuring their participation, taking collective protection measures, ensuring that personal protective equipment is replaced immediately when it is damaged, purchasing personal protective equipment with the CE marking, and ensuring that employees' occupational health and safety training is provided in accordance with the legislation.

It is noteworthy that the tasks that employers do not fulfill are those that require practice and money. For example, occupational safety specialists explain the reason why employers do not have knowledge in risk assessment. Since the employer gives the salary of the occupational safety specialist, they believe that risk assessment must be done by occupational safety specialists. In fact, the reason why employers do not perform some of the duties we listed above that require control and activity is that they think that these duties should be done by the occupational safety specialists whose salary they give. At this point, the Occupational Health and Safety Law No. 6331 can be criticized. In order for employers to fulfill their duties to a large extent or completely, the law should be amended and the salaries of occupational safety specialists should be paid by the state. In this way, occupational safety specialists will not depend on employers, and employers will fulfill their duties and responsibilities. They will also be able to punish employers without hesitation when there is a situation contrary to the legislation in the workplace.

According to occupational safety specialists, the other and perhaps the most important reason why employers do not fulfill some of their duties specified in the legislation is the cost burden imposed on the employer by occupational health and safety measures. For example, while employers take personal protective measures to a large extent, they refrain from taking collective protective measures. This is because collective protective measures are much more costly than personal protective measures. Thus, it is seen that employers do not perform the duties that bring additional costs to the employer, such as replacing defective personal protective equipment immediately and purchasing personal protective equipment with CE mark. In fact, some employers care so much about money that they may consider even the training on occupational health and safety during working hours as a loss. Thus, occupational safety specialists are obliged to give occupational health and safety trainings in shorter periods. While it is correct to suggest that occupational safety specialists should receive their salaries from the state, it would not be fair to say that the state should cover the employer's occupational health and safety costs because these costs faced by the employer are actually a part of production costs as a requirement of the work done. In some cases, employers can be overwhelmed by high health and safety costs. However, in many cases, it can also be said that employers' attempt to avoid occupational health and safety costs is due to their ambition to make more profits.

Based on our research and the input from occupational safety specialists, the responsibilities and obligations outlined in the occupational health and safety legislation are largely and effectively fulfilled: to carry out studies to ensure that employees use personal protective equipment, to carry out risk assessment, to renew the risk assessment. These further include planning training for employees, cooperating with employee representatives and support staff, making recommendations to the employer regarding events that have the potential to harm employees, training employees on health and safety signs, and providing occupational health and safety training to employees. It can be stated that these duties performed by occupational safety specialists are generally for the protection of employees and especially for the occupational health and safety training of employees. Occupational safety specialists also stated that they train employees to use personal protective equipment, try to persuade them and force them when necessary. Occupational safety specialists ensure that many employees who do not want to use personal protective equipment are subject to administrative fines by keeping minutes.

Another important finding is that occupational safety specialists urge employers to purchase quality personal protective equipment. It can be said that they fulfill the duties of protecting and training employees and they struggle with employees and the employer while performing these duties. One of the tasks performed by occupational safety specialists is risk assessment. However, this duty cannot be fulfilled in full accordance with the Law No. 6331 because it should actually be done by the risk assessment team according to the law; however, occupational safety specialists have to do this task themselves to a large extent. The risk assessment team and the employer usually get things done with just one signature on paper. This is because the only person who gets paid for risk assessment is the occupational safety specialist, and other stakeholders see risk assessment as a waste of time. Thus, considering that there are some practical deficiencies in the risk assessment process in the Law No. 6331, it may be suggested to make some changes in the law.

According to the occupational safety specialists, the tasks that are largely not fulfilled, not fulfilled at all, or cannot be fulfilled are collecting information in risk analysis as specified in the Law No. 6331, knowing what the main duties of the occupational safety specialists in the law are, and giving occupational health and safety trainings to employees within the periods specified in the law. The findings revealed that although occupational safety specialists engage in activities and practices that may be beneficial, these activities may not be in accordance with the activities specified in the law. At this point, if the risk analysis information collection process articles in the law are not applicable in the field, it may be suggested that these articles be amended by lawmakers. However, if the reason why the occupational safety specialists carry out the risk analysis information collection process with applications different from the law is lack of knowledge, it may be recommended to train occupational safety specialists on the risk analysis information collection process. As stated earlier, occupational safety specialists carry out training activities for employees effectively and in accordance with Law No. 6331. However, they clearly state that the duration of the training they give to the employees is less than the periods specified in the law. This is because employers see trainings as a waste of time or employees are not open to education. Thus, it can be suggested that trainings and activities that will enable employers to transform the capitalist way of thinking on occupational health and safety into a social way of thinking should be performed, and consultancy and training activities should be carried out to ensure that employees give more importance to in-service training. According to the occupational safety specialists in the study, an important obligation that occupational safety specialists cannot fulfill is they lack knowledge about their main duties and duties in the law. Thus, it can further be suggested to eliminate these deficiencies by systematically subjecting occupational safety specialists to inservice training.

to the participants, According workplace physicians fulfill only two duties in accordance with the law. These are health surveillance and periodic tests of employees and recording of occupational accidents and occupational diseases. One of the most important findings in this study is that although occupational safety specialists have the same duties as workplace physicians as specified in the law, the occupational safety specialists in the study clearly stated that all of the duties other than supervising the employees and recording work accidents and occupational diseases are performed by occupational safety specialists. Perhaps, one

of the biggest shortcomings of the Occupational Health and Safety Law No. 6331 is the incorrect job descriptions that may go beyond the fields of expertise, such as assigning each task to both the employer, the occupational safety specialist, and the workplace physician. For this reason, it may be recommended to amend the law by redefining the duties of employers, occupational safety specialists and workplace physicians considering their fields.

According to the occupational safety specialists, employees do not fulfill any of their duties within the scope of the law to a large extent or completely. The duties that are largely not fulfilled, not fulfilled at all, or cannot be fulfilled by the employees are notifying the employer directly of a serious problem in terms of occupational health and safety, using production tools in accordance with the rules, using protective equipment in production tools, using personal protective equipment, storing the protective equipment in healthy conditions, and not endangering the health and safety of themselves or others. In fact, the above-mentioned duties are those that employees must fulfill in general according to the Law No. 6331. Two of these duties are not fulfilled at all and the other three are mostly unfulfilled.

The findings revealed that employees use the means of production in their own way, independent of the rules, do not want to use personal protective equipment even at the expense of an administrative fine, find it unnecessary to use the protective equipment of production tools, and smoke in dangerous areas believing that nothing will happen. In fact, the phrase "nothing will happen to me" is a frequently used phrase among workers, and it can be said that employees are indifferent to and unconscious about possible dangers. Considering that the greatest enemy of a society is ignorance, it is impossible in the short term to ensure that employees will eliminate these behaviors that may put their own life and the lives of others at risk. Such problems require educational activities on occupational health and safety since childhood and social and cultural behavior changes. It is clear that for many years, occupational safety specialists and other stakeholders will have to struggle to raise awareness of employees about occupational health and safety.

There are many reasons for the increase in work accidents and occupational diseases in Turkey, and in this study, the problems were revealed in detail by using in-depth interview data collection and qualitative research method on a study sample consisting of occupational safety specialists in Çorum. Future studies can discuss in more detail whether the occupational health and safety practices are carried out correctly and appropriately according to employers, workplace physicians, and employees. By discussing the shortcomings of all stakeholders, including the government,

occupational accidents and occupational diseases can be reduced and healthier and safer work sectors can be created.

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# **SUPPLEMENTARY FILES**

**Supplementary File 1.** Frequency Distribution of Occupational Safety Specialists' Views on the Obligations of the Employer (n=10)

QUESTION	RESPONSE	F
1. Taking occupational	No, he does not.	9
health and safety mea- sures definitely brings a certain cost. Does the em- ployer reflect these costs to the employees? (Occupational Health and Safety Law No. 6331, Arti- cle 4)	I don't know.	1
	They fulfill as much as possible the obligations that they think may be punished by laws.	1
	Employers do not have enough knowledge about occupational health and safety. They think that the occupational safety specialist is responsible.	3
	I do not think that employers fulfill their legal obligations.	1
2. What obligations do employers fulfill when ensuring the health and safety of employees? (Occupational Health and Safety Law No. 6331, Article 4)	They provide occupational health and safety services.	1
	Employers ensure that we have health examinations and pro- vide personal protective equip- ment.	1
	They take general protective measures. First, they take collective protection. They believe that personal protection measures will be reduced in this way.	1
	They usually avoid them by giving employees personal protection.	1
	Recently, they have started to give personal protective equipment more easily.	1

**Supplementary File 2.** Frequency Distribution of Occupational Safety Specialists' Opinions on Risk Assessment Obligations (n=10)

	proposer	_
QUESTION	RESPONSE	F
3. Is a risk assessment carried out in the workplaces you serve? (Occupational Health and Safety Law No. 6331, Article 10)	Yes, it is.	U
4. Do employers have information about risk assess-	They do not have enough knowledge. They do not open and look; they just sign the document and leave.	3
ment in the workplaces you serve?	Yes, they are knowledgeable.	4
(Occupational Health and Safety Law No. 6331, Article 10), (Occupational Health and	Employers expect occupational safety specialists to have knowledge about it.	1
Safety Risk Assessment Regulation, Article 5)	Most employers do not know about risk analysis. When we say that 'there is a risk here', they tend to show interest.	1
	It is done by an occupational safety specialist.	7
5. Who carries out risk assessment in the workplaces you provide service? (Occupational Health and Safety Risk Assessment Regulation, Article 6)	Corporate companies do it together with the risk assessment team, but in small businesses, the burden is on the occupational safety specialist and the workplace doctor.	2
	We do it together with the risk assessment team.	1
6. Do employees notify the	They do not inform.	3
employer when they encoun- ter a serious and imminent danger in terms of health and safety in the machinery,	Employees may shy away from employers. Thus, they tend to tell people such as foremen.	3
devices, tools, equipment, facilities and buildings in the workplace and when they see a deficiency in the protection measures?  (Occupational Health and Safety Law No. 6331, Article 19)	There are those who report and those who do not; there are those who try to handle it on their own. Of course, that is another problem.	3
7. Do employees use machin-	No, they do not.	9
ery, devices, tools, equipment, dangerous goods, transport equipment and other production tools in the workplace in accordance with the rules?  (Law No. 6331 on Occupational Health and Safety, Article 19)	They generally do.	1
8. Do employees remove the protective equipment of the machinery, devices, tools and equipment in the workplace? (Occupational Health and Safety Law No. 6331, Article 19)	They take them off.	10

Since the thickness of the piece does not pass through the protector, workers take it off and do not put it back when it is finished.	1
It prevents us from working. It is removed during maintenance and repair.	5
I make observations and question the events that employees deem dangerous.	1
Occupational safety specialists copy and paste the information previously collected.	1
I visit the field, check the machines, check the emer- gency exits, and get infor- mation from the employee representative.	1
We pay attention to occupational accidents that occur.	1
I pay attention to the main sources of hazards. I inspect electricity wiring.	1
I pay attention to situations such as fire. I am working on the dangers that may come from the business next door.	1
I examine the risk analyses on the Internet. If my com- pany is old, I examine the previous risk analysis a little more.	1
We consider the work process. Where does the product come in? Where does it come out? We get the list of the machines, look at the input and output of the chemicals, examine the storage areas in the field, and as a result, make a risk analysis.	1
Before starting the risk analysis, we check and list all of the tools and equipment in the workplace, including hand tools; we check the list again in the field; we check whether they are grounded or there are instructions on them.	1
Yes, it is.	10
It is not easy to renew the assessment.	1
When there is a change in the business or according to the specified periods in the legislation.	9
	piece does not pass through the protector, workers take it off and do not put it back when it is finished.  It prevents us from working. It is removed during maintenance and repair.  I make observations and question the events that employees deem dangerous.  Occupational safety specialists copy and paste the information previously collected.  I visit the field, check the machines, check the emergency exits, and get information from the employee representative.  We pay attention to occupational accidents that occur.  I pay attention to the main sources of hazards. I inspect electricity wiring.  I pay attention to situations such as fire. I am working on the dangers that may come from the business next door.  I examine the risk analyses on the Internet. If my company is old, I examine the previous risk analysis a little more.  We consider the work process. Where does the product come in? Where does it come out? We get the list of the machines, look at the input and output of the chemicals, examine the storage areas in the field, and as a result, make a risk analysis.  Before starting the risk analysis, we check and list all of the tools and equipment in the workplace, including hand tools; we check the list again in the field; we check whether they are grounded or there are instructions on them.  It is not easy to renew the assessment.  When there is a change in the business or according to the specified periods in the specified periods in the the specified periods in the specified period

12. Are occupational health	According to the results of the risk analysis, occupational health and safety measures are not taken.	8
and safety measures taken in your workplace as a result of risk assessment? (Occupa- tional Health and Safety Risk Assessment Regulation, Arti- cle 10)	They are mostly taken. Precautions are taken immediately in case of high level of danger. Some measures are spread over time, some 6 months, some 1 year.	1
	They are taken slowly. There is gradual awareness about it.	1

**Supplementary File 3.** Frequency Distribution of Occupational Safety Specialists' Opinions on Risk Assessment Obligations (SF 2 continued) (n=10)

Assessment Obligations	(SI Z continued) (II 10)	
QUESTION	RESPONSE	F
13. Is an emergency plan made in the workplaces you serve? (Occupational Health and Safe- ty Law No. 6331, Article 11)	Yes, it is.	10
14. Do the employees and em-	Information is given in the trainings, but they are not aware of the information included in the emergency plan.	3
ployers in the workplaces you serve know about the emer-	The Emergency Plan remains on paper.	4
gency situations that may occur in their workplaces? (Regulation on Emergencies at Workplaces Articles 4 and 15)	Apart from the employer and employees who are definitely knowledgeable, third parties should also have information.	1
	It would be wrong to say that they know exactly. They started to learn grad- ually with the trainings.	1
15. Are evacuation and drills	They are not done. Especially in small businesses, they are not performed.	1
held at the workplaces you serve? (Occupational Health and Safe- ty Law No. 6331, Article 11)	They are done in big companies, but not in small companies.	2
(Regulation on Emergencies at	Yes, they are done.	6
Workplaces, Article 13)	They are done with the urge of the occupational safety specialist or when an inspector arrives.	1
16. Are there emergency teams in the workplaces you serve? (Occupational Health and Safety Law No. 6331, Article 11) (Regulation on Emergencies at Workplaces, Article 11)	Yes, there are.	10
16.1 Can you elaborate on emergency teams?	We have Fire, Rescue, First Aid, and Protection teams.	10
17. Is there a first aider in the workplaces you serve? (First aid regulation, Article 19)	Yes, there is.	10

**Supplementary File 4.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Related to the Responsibilities of Occupational Safety Specialists (n=10)

QUESTION	RESPONSE	F
	Our main task is to identify and make recommendations.	5
	We need to be an advisor. We should guide you against any danger and risk.	1
18. What are the duties of occupational safety specialists?	They fulfill only a part of their duties in the legislation. Guidance, counseling, risk analysis etc.	1
(Regulation on Duties, Authorities, Responsibil- ities and Training of Oc- cupational Safety Spe- cialists, Article 9)	Providing consultancy, risk analysis, board meeting call, writing in the certified report, and informing the employer in case of emergency	1
	It is to prevent work accidents in the workplace and to ensure that employees work in a comfortable working environment.	1
	I think their main duty is to improve themselves first.	1
10 De compliant	Employers do not interfere too much. They assign a person, and when that person goes to the employer, he says we will do it later.	1
19. Do occupational safety specialists investigate the causes of work accidents and occupational diseases	Root cause analysis is carried out. The causes of the accident are investigated and written in the report.	4
in the workplace and in- form the employer?	We keep a record and inform the employer.	1
(Regulation on Duties, Authorities, Responsibil-	The reasons behind the accidents emerge through experience.	1
ities and Training of Oc- cupational Safety Spe- cialists, Article 9)	Our main goal is to minimize work accidents and occupational diseases. Therefore, we ask the employer to take precautions.	1
	The employer does not always deal with it, so I inform the relevant person.	1
20. Do occupational safety specialists make recommendations to the	We do not directly describe it as a near miss event, but we report the dangers.	1
employer regarding inci- dents that do not cause loss of life and property in the workplace, but	Occupational safety specialists do not conduct research on near misses.	2
have the potential to harm the workplace and employees?	We create near-miss boxes, if any, inform the employees, and write them in the report.	2
(Regulation on Duties, Authorities, Responsibil- ities and Training of Oc- cupational Safety Spe- cialists, Article 9)	Yes, they do.	4
21. Do occupational safety specialists work on a training plan? (Regulation on Duties, Authorities, Responsibilities and Training of Occupational Safety Specialists, Article 9)	Yes, they do.	10

22. Do occupational	Often there is no collaboration because the employee representative and support staff do not assume this responsibility.	5
safety specialists coop- erate with the employee representative and sup-	It is done in corporate companies, but not so often in small businesses.	1
port staff? (Regulation on Duties, Authorities, Responsibil- ities and Training of Oc- cupational Safety Spe-	Yes, we are in cooperation. When there is a problem, the employee representatives in the companies tell the employer or me.	3
cialists, Article 9)	We did not receive such support from the support staff, but there are also employee representa- tives who work as coordinators.	1

**Supplementary File 5.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions
Related to the Workplace Physician (n=10)

Related to the Workplace Physician (n=10)		
QUESTION	RESPONSE	F
23. What are the duties of workplace physicians? (Regulation on Duties, Authorities, Responsibilities and Training of Occu-	For occupational safety specialists, occupational physicians have the same or similar duties in the legislation, but they do not perform their duties; they only write prescriptions.	9
pational Physicians and Other Health Personnel, Article 9)	In fact, their biggest task is to prevent occupational diseases, just as we minimize work acci- dents.	1
24. Do workplace physicians investigate the	No, they do not.	8
causes of work accidents and occupational diseases in the workplace and inform the employer? (Regulation on Duties, Authorities, Responsibilities and Training of Occupational Physicians and Other Health Personnel, Article 9)	They investigate the causes in places with occupational diseases.	2
25. Do workplace physi-	No, they do not.	9
cians make recommendations to the employer regarding incidents that do not cause loss of life and property in the workplace, but have the potential to harm the workplace and employees?  (Regulation on Duties, Authorities, Responsibilities and Training of Occupational Physicians and Other Health Personnel, Article 9)	If it is related to an occupational disease, the physician reports it. The occupational safety specialist reports the occupational accident.	1
26. Do workplace phy-	No, they do not.	9
sicians make a training plan? (Regulation on Duties, Authorities, Responsibilities and Training of Occupational Physicians and Other Health Personnel, Article 9)	Of course, they do. Some issues in the regulation are related to the workplace physician.	1

27. Do workplace phy-	No, they do not.	8
sicians cooperate with the employee represen- tative and support staff? (Regulation on Duties, Authorities, Responsibili- ties and Training of Occu- pational Physicians and Other Health Personnel, Article 9)	Of course, they do. They especially visit places where occupational diseases may occur.	2
28. Are employees subject to health surveillance? (Regulation on Duties, Authorities, Responsibilities and Training of Occupational Physicians and Other Health Personnel, Article 9)	Yes, they are. They are definitely giving periodic tests.	10

**Supplementary File 6.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Related to the Employee Representative (n=10)

QUESTION	RESPONSE	F
29. Is there an employ- ee representative in the workplaces you serve? (Occupational Health and Safety Law No. 6331, Ar- ticle 20)	Yes, there is.	10
30. How is the employee representative determined in the workplaces you serve?	The majority of them are determined by election. Sometimes, the employer selects and appoints the employee representative.	3
(Occupational Health and Safety Law No. 6331, Ar- ticle 20)	Generally, no election is made. The employer appoints someone.	7
31. Does the employee	No, he does not.	8
representative report the dangers and risks in the workplace on behalf of the employees?	They report when possible, and when they do not, I go and ask if there is a problem. Then, they let me know when there is a problem.	1
(Occupational Health and Safety Law No. 6331, Ar- ticle 20)	Of course, he does.	1
32. Does the employee	No, he does not.	7
representative partic- ipate in occupational health and safety ac-	They assist the occupational safety specialist.	1
tivities? (Communiqué on Qualifications of Em- ployee Representatives and Election Procedures and Principles Related to Occupational Health and Safety, Article 9)	Yes, they do.	1

**Supplementary File 7.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Regarding Health and Safety Indicators (n=10)

QUESTION	RESPONSE	F
33. Are health and safe- ty indicators used in the workplaces you serve? (Health and Safety Indica- tors Regulation, Article 5)	Yes, they are.	10
34. Are employees trained on Health and Safety indi- cators? (Health and Safety Indica- tors Regulation, Article 6)	This subject is included in the general education and we talk about the indicators there.	10

**Supplementary File 8.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Related to Occupational Accidents and Occupational Diseases (n=10)

QUESTION	RESPONSE	F
35. Are occupational accidents and occupational diseases that occur in the workplace recorded? (Occupational Health and Safety Law No. 6331, Article 14)	Yes, they are recorded.	10

**Supplementary File 9.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Regarding Personal Protective Equipment (n=10)

QUESTION	RESPONSE	F
36. Is personal protective equipment used in the workplaces you serve?  (Regulation on the Use of Personal Protective Equipment at Workplaces, Article 7)	It is mostly not used.	1
	Recommendations are made to the employer in the workplaces where there is a need. The em- ployer sometimes buys it and sometimes does not.	1
	The employer sees purchasing personal protective equipment as an extra burden, or some employers buy them, but employees do not use them. It is used in corporate companies.	1
	There are problems about the use of personal protective equipment.	3
	We ensure that it is used as much as possible. There are those who do not use it, and there are those who object to using it. We keep the necessary minutes and im- pose administrative penalties.	1
	I can say that it is generally used.	1
	There are places where it is used and not used.	1
	We fought over it a lot. At first it was not that much, but now half of the employers started to buy it.	1
37. Who purchases	Employers buy it.	9
the personal protective equipment? Employers or employees? (Regulation on the Use of Personal Protective Equipment at Workplac- es, Article 6)	Again, I will give an example from the construction sector. It is very difficult to obtain it in the sec- tor. The job to get a plaster done takes three days. Employers may say that they cannot give shoes and helmets for a three-day job.	1
38. Is there a CE mark on the personal protective equipment used?  (Regulation on the Use of Personal Protective Equipment at Workplaces, Article 6)	The employer does not question whether there is a CE mark or not.	2
	It is recommended to have a mark, but employers buy what- ever equipment is financially suit- able for them.	1
	We definitely state that there must be a CE mark on the personal protective equipment. We want them to pay attention to this when buying the equipment. Although it is proportionally very low, we also see personal protective equipment without CE marking.	3
	Yes, there is.	3
	This again changes from company to company. There is equipment without CE mark.	1

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39. Where is the personal protective equipment stored? (Regulation on the Use of Personal Protective Equipment at Workplaces, Article 6)	The equipment is put here and there. Employees do not attach importance to personal protectors.	1
	Some employees put the equipment in their lockers, and some put it here and there.	7
	In the locker rooms, there is a section for clean clothes and a section for work clothes. They put it in the section for work clothes.	2

**Supplementary File 10.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Regarding Personal Protective Equipment (SF 9 continued) (n=10)

QUESTION	RESPONSE	F
40. Are collective protection measures or personal protective measures taken against dangers and risks in your workplace? (Occupational health and safety risk assessment regulation, Article 10) (Occupational Health and Safety Law No. 6331, Article 5)	Collective protection needs to be taken, but employers take personal protection measures because of the cost.	9
	The main thing is collective protection. We cannot say that there is no need for personal protection. We should take both together, but the priority is collective protection.	1
41. Is the personal pro- tective equipment re-	No, it is not changed immediately.	9
placed when it is broken or unusable? (Regulation on the Use of Personal Protective Equipment at Workplac- es, Article 6)	Yes, it is changed.	1
42. Do employees inform the employer about broken or out of order personal protective equipment? (Regulation on the Use of Personal Protective Equipment at Workplaces, Article 6)	They inform the employer, but new equipment is not bought right away.	2
	If the employees want to use it, they inform the employer, but if they do not want to use it, they do not.	2
	We see that the equipment is broken or out of order. We de- mand a replacement. Most of the time, it is not changed.	1
	Yes, they do.	4
	They generally do not.	1
43. Do employees endanger the health and safety of themselves or other employees? (Occupational Health and Safety Law No. 6331, Article 19)	Yes, they do. They joke about it. For example, they unconsciously drop a cigarette in front of the LPG tank.	10

**Supplementary File 11.** Frequency Distribution of Occupational Safety Specialists' Opinions on Questions Related to Occupational Health and Safety Training (n=10)

QUESTION	RESPONSE	F
<b>44.</b> Are employees given training on occupational health and safety? (Occupational Health and Safety Law No. 6331, Article 17)	Yes, they are.	10
45. In which periods and for how many hours are the trainings on occupational health and safety given? (Regulation on the Procedures	They are given as 8, 12, and 16 hours according to the danger class during the periods specified in the legislation.	4
and Principles of Occupational Health and Safety Training of Employees, Article 11)	We provide training for less than the time specified in the legislation.	6
46. On which subjects are employees given occupational health and safety training? (Annex-1 of the Regulation on the Procedures and Principles of Occupational Health and Safety Training of Employees)	We give training on the subjects covered by the Education Regulations.	10