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## A heuristic outlook on the occupational accidents of food & beverage staff in hotels

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## Abstract

The labor-intensive structure, 24/7 service availability, diversity of departments including kitchens, housekeeping, and technical services, the high labor turnover ratios, along with the long working hours and shift systems inherent in accommodation establishments all play a role in the occurrence of occupational accidents (OA). Fundamental reasons underlying OA are unsafe behavior and unsafe working conditions. This study analyzes with a qualitative method the OA that occur in the food & beverage (F&B) service department of accommodation establishments from the viewpoint of employees. The study concludes that the majority of these accidents are not high risk, and generally result from unsafe conditions. Occupational safety and health (OSH) training is one of the most effective methods of preventing OA. Data collected from interviews revealed that OSH training of employees provided by the accommodation establishments involved in this study is inadequate. Apart from regularly scheduled training, establishments need to take measures to ease the pressure on employees during rush hours and should also reduce and eliminate potential environmental risks.

## Keywords

occupational safety and health, unsafe condition, unsafe behavior, accommodation

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# A Heuristic Outlook on the Occupational Accidents of Food & Beverage Staff in Hotels

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## Abstract

The labor-intensive structure, 24/7 service availability, diversity of departments including kitchens, housekeeping, and technical services, the high labor turnover ratios, along with the long working hours and shift systems inherent in accommodation establishments all play a role in the occurrence of occupational accidents (OA). Fundamental reasons underlying OA are unsafe behavior and unsafe working conditions. This study analyzes with a qualitative method the OA that occur in the food & beverage (F&B) service department of accommodation establishments from the viewpoint of employees. The study concludes that the majority of these accidents are not high risk, and generally result from unsafe conditions. Occupational safety and health (OSH) training is one of the most effective methods of preventing OA. Data collected from interviews revealed that OSH training of employees provided by the accommodation establishments involved in this study is inadequate. Apart from regularly scheduled training, establishments need to take measures to ease the pressure on employees during rush hours and should also reduce and eliminate potential environmental risks.

**Keywords:** occupational safety and health, unsafe condition, unsafe behavior, accommodation

## Introduction

Although the tourism industry has been regarded as one of the sectors that provides the highest input to the national economy, it is now one of the worst affected industries globally because of COVID-19 pandemic-related travel restrictions and shrinking demand. Despite most destinations easing travel restrictions in 2021, uncertainty about COVID-19 remains. It can be said that at least before the pandemic the increase in the number of establishments had led to the growing number of employees due to its labor-intensive structure. Tourism establishments mostly render services, and these services have a high dependence on manpower (Ministry of Education, 2011). Employment in accommodation establishments is particularly the highest during summer months which are referred to as the high season (Yıldırım, 2016). The busy tempo, long working hours, employment of especially tourism students who are frequently given tasks outside of their job descriptions, and the employment of unqualified staff during busy seasons can be listed among the reasons for OA in this sector. The stress resulting from the combination of long and arduous working hours with the intensity of human interaction can cause a decrease in efficiency and performance of staff, low spirits, fatigue, and absentmindedness (Ambardar, 2015; Özer et al.,

2013) and increase the probability of accidents. Not providing personnel with health insurance also causes serious problems (Kalcık, 2017). The total number of the accommodation facilities, employees, OA, and diseases related to the sector in Turkey are given in Table 1.

**Table 1.** Accommodation Sector in Turkey

Year	Accommodation Facility	Employee	Occupational Accident	Occupational Disease
2019	12,865	342,368	17,757	3
2018	12,577	318,200	12,811	1
2017	12,429	236,373	7,885	3
2016	9,982	192,176	5,397	3

Source. Social Security Institution, 2019; The Ministry of Culture and Tourism, 2019

The OA in the scope of OSH cause crucial losses both for tourism establishments and national economies (Kılıç & Selvi, 2009). OA observed in the tourism industry can be put into two main groups: unsafe working conditions and unsafe behavior (Çilkaya, 2014). Considering the position of the tourism industry in our national economy, OSH becomes one of the focal points requiring attention (İlhan et al., 2017).

The OSH is a neglected area of research in the F&B service department of hotels. Although there are several related studies which are shown in Table 2 in this paper, the OA encountered by F&B staff were analyzed with the qualitative approach for the first time. This study approaches OA classified as *low risk* by OSH, which is experienced by F&B personnel employed in accommodation establishments from a qualitative perspective. The study contributes to the literature in terms of exploring the types, reasons, and results of OA from the perspective of employees. The purpose of the study is to provide insight into industry employees, establishments, relevant management, and audit mechanism and researchers for better understanding the increasing number of OA (Social Security Institution, 2019) in the F&B sector especially in recent years. This study adopts a heuristic approach that will significantly compensate for the low number of studies related to OA of accommodation employees in the literature. The study also aims at finding out the underlying reasons for OA in the hospitality sector.

## Literature Review

An occupational accident is defined as “any occurrence taking place at the workplace or due to the performance of work which leads to death or physical or mental impairment to the physical integrity of the victim” (Occupational Safety and Health Law, 2012, p. 2). According to the International Labor Organization, approximately 4% of the global gross domestic product is lost each year due to OA, occupational diseases, health expenses, stipends, work discontinuity, and rehabilitation (Melchior & Zanini, 2019). Production technologies and tools, adverse environmental conditions, moods of employees, inappropriate behavior at work environments, working hours, lack of education, spatial inadequacy of establishments, along with wrong order structure also play an important role in the cause of OA. However, it is possible to group the causes of OA under two headlines such as unsafe behavior and unsafe working conditions (Aydın et al., 2013; Union of Chambers of Turkish Engineers and Architects [TMMOB], 2018). Observing the statistics of OA in Turkey, accidents occur at workplaces every three minutes and one person is killed every four hours. Among the reasons for OA, approximately 80% involve human behavior (Fleming & Lardner, 2002). Tiredness, lack of sleep, monotony, accident proneness, emotional conditions, tension, and stress play an important role in OA (Altınel & Türksoy, 2017). Work requirements, situations, and the workplace also play an important role in OA as they are connected

to the human factor (Kuo et al., 2020). Unsafe work conditions and unsafe and unhealthy working conditions are associated with non-work-related tools, lack of protective systems for machinery and work counters, lack of maintenance and controls in due time, and overuse of machinery and equipment outside of their purpose (Efor Ortak Sağlık ve Güvenlik Birimi, n.d.). OA can lead to permanent injuries or death and can cause material and workday losses. Lack of occupational safety training, the inadequacy of investments for preventing OA by employers, and the negligence of employees can trigger OA (Unsar & Sut, 2009).

Nowadays, it is observed that OA are experienced in nearly all industries, but service establishments in particular experience OA at a much higher frequency. Particularly for accommodation establishments, boosting workloads in especially summer months, inadequate numbers of staff at the start of the season, busy working hours, plus employing interns for out-of-purpose tasks, all trigger OA (Çilkaya, 2014). Topics at the top of the list of notifications and complaints sent to the Ministry of Labor and Social Security of the Turkish Republic for the tourism sector are lengthy work hours, violation of break times, and violation of weekly holidays (Ministry of Labor and Social Security of the Turkish Republic, 2011). Kavurmaci and Demirdelen (2015) have stated that fatigue of personnel employed in high season which exceeds their physical capacity tends to cause OA. In this regard, the accommodation sector requires attention in terms of OA.

### ***Classification of Occupational Accidents (OA)***

The OA can be classified in different ways. According to the severity of the accident, they can be divided into three: non-serious, serious, and fatal OA. Non-serious accidents refer to those that occur at the workplace where the employee remains alive and the accident results in a loss of up to four days; serious accidents result in loss of more than three workdays; fatal accidents occur at the workplace where the employee passes away within a year of the accident (Eurostat, 2018, 2019a). Classification according to the type of accident can be grouped under three categories based on the classification put forward in the studies of Buchanan et al. (2010): those resulting from musculoskeletal disorders (MSD), those resulting from acute trauma, and those resulting from other reasons. Classification can also be made according to head, arm, leg, and spine depending on the location of the wound (type of injury).

Besides the classifications above, “Occupational accidents are traditionally classified according to unsafe conditions and unsafe practices” (i.e., behavior; Choudhry & Fang, 2008, p. 567). An unsafe condition can be defined as “a condition in which the physical layout of the workplace or work location, the status of tools, equipment, and/or material are in violation of contemporary safety standards” (Abdelhamid & Everett, 2000, p. 54). Unsafe behavior refers to “any behavior that an employee engages in without regard to safety rules, standards, procedures, instructions, and specific criteria in the system” (Li et al., 2018, p. 1). According to TMMOB (2018),

insensibility, absentmindedness, negligence, removal of protective gear, working at dangerous speeds, carrying out non-duty tasks, non-compliance with work discipline, not using appropriate machinery and tools, entering dangerous zones without authority and permission, not using personal protective gear, driving without a license at dangerous speeds, etc. can be listed as unsafe behavior directly resulting from employees (p. 125).

Aspects that directly result from the environment and security culture such as “machinery and counters without protection, unsafe working methods, unsafe and unhealthy working conditions, ungrounded electric tools, hand tools not suitable for work, pressurized containers/lifting machines without controls and tests, stacking at dangerous heights, uncovered gaps, messy workplaces, etc.” can be listed as unsafe conditions (TMMOB, 2018, p. 215). While work stress plays an important role in unsafe behavior, underlying reasons include family issues, effort-reward imbalance, workplace conflicts, external locus of control (Barkhordari et al., 2019: 3). The generally accepted idea is that OA mostly occur due to unsafe behavior (Esin, 2007), however, an occupational accident thought to result from unsafe behavior may be shaped by unsafe conditions and culture or organizational factors (Institution of Occupational Safety and Health, 2019).

Safety culture, a sub-component of corporate culture, is related to individual, job, and organizational features that affect health and safety (Cooper, 2000). Safety culture is a multi-dimensional concept (Yari et al., 2019: 961). The Egg Aggregated Model of safety culture by Vierendeels et al. (2018) states that safety culture is made up of complicated or inter-related organizational, personal, and technological domains. According to this model, the organization has a casual influence on safety climate (workgroup members’ shared perceptions of their work environments) which also shapes the behavior of people with personal psychological factors such as skills and ability, personal characteristics, and knowledge. Eventually, technology, training, the behavior of people, safety-related policies, procedures, and practices each help create concrete safety outcomes such as occupational illness, injury, or death rates.

The size of the risk varies according to the occupation, but slipping, stumbling, and falling are among the most frequently encountered accidents and mostly result in dislocations, sprains, trauma, and broken bones. OA that occur in the US, UK, Sweden, and Finland result from slipping, stumbling, and falling at varying percentages (Nenonen, 2013). Frequently encountered ground falls comprise the majority of accidents that not only result in loss of workdays but also make up the majority of accidents that cause loss of workdays. Design flaws, neglect, faulty assembly, plus non-ergonomic design structures can be listed among factors that cause falling (Leclercq, 2005). OA caused by slipping, stumbling, and falling are the ones that are most frequently repeated (Pietilä et al., 2018). Temporary/seasonal workers are faced with much more dangerous working conditions compared to permanent employees due to their poorly qualified positions that require repetitious actions which cause physical pain and fatigue (Anyfantis & Boustras, 2020). Employees who repeat the same tasks on consecutive working days are subject to high physical and psychological stress which threaten their OSH (Kuo et al., 2020). Poor sleep quality is also associated with OA, besides having an adverse effect on the continuity and efficiency of employees (Kucharczyk et al., 2012).

### ***Occupational Accidents at Hotels***

According to Eurostat (2013), risk factors in tourism are generally assessed in two perspectives (a) risk factors that impact physical health (difficult postures or movements, lifting heavy items, noise and strong vibrations, chemicals, dust, smoke or gases, actions that require intense visual concentration, the probability of accidents); and (b) risk factors that impact mental health (intensive deadline pressure or workload, violence or the threat of violence, harassment, or bullying). Accommodation establishments are open for service 24/7 by nature. Accordingly, long working hours lead to problems such as sleep deprivation, fatigue, and attention deficit.

Accommodation and F&B activities take place especially among the top ten non-fatal OA and surpass many other sectors (Bureau of Labor Statistics, 2020; Eurostat, 2019b). Moreover, the content and duration of the training provided for personnel working at accommodation establishments that offer various tasks are inadequate (Altinel & Turksoy, 2017).

Although the highest occupational accident rate among hotel employees was determined in order of housekeepers, cooks, stewards, and service personnel in the study carried out in the USA (Buchanan et al., 2010) it was found that F&B (49%) and housekeeping (15%) are the departments which pose the highest risk in terms of OSH at hotels in Turkey (Yağmurluklu, 2016). Even though the labor-intensive nature of the hospitality industry mostly leads to MSD (Gan & Quah, 2015), acute trauma injuries outnumber MSD in accommodation establishments (Buchanan et al., 2010). Falls, cuts, burns, electric shocks, and poisoning comprise the most frequently encountered OA, and 88% of these are thought to be employee-related (Çilkaya, 2014). Which occupational accident type is more common, and dominant may vary according to departments, hotel types, and even countries (Üner & Ayberk, 2019; Cherono, 2011; Şahin & Erkal, 2010) Related studies in hospitality are given in Table 2.

**Table 2.** Occupational Safety and Health Studies in the Hospitality

Study	Research Approach	Department / Staff	Type of Accident	Type of Injury	Reason
Chyuan et al., 2004	QUAN	Hotel restaurant	MSD	1. Upper extremity 2. Lower extremity 3. Back 4. Neck	
Krause et al., 2005	QUAL QUAN	Hotel room cleaners	MSD	1. Low back 2. Upper back 3. Neck	
Buchanan et al., 2010	QUAN	Housekeepers, F&B service staff, stewards, cooks, other	1. Acute trauma 2. MSD	1. Upper extremity 2. Back 3. Lower extremity	
Burgel et al., 2010	QUAN	Hotel room cleaners	MSD	1. Shoulder	
Şahin & Erkal, 2010	QUAN	Kitchen	Acute trauma - cut - burn - electric shock - fall		1. Unsafe Behavior 2. Unsafe Conditions
Cherono, 2011	QUAN	Cooks, waiters, housekeepers, front office staff	Acute trauma - fall/slip, burn, cut		
Yağmurluklu, 2016	QUAN	F&B, housekeeping	Acute trauma - burn - cut - electric shock - fall		1. Mechanical 2. Unsafe Conditions 3. Unsafe Behavior
Dinçer & Utlu, 2017	QUAN	Kitchen	Acute trauma - cut - fall - burn - traffic (delivery)		
Üner & Ayberk, 2019	QUAN	Kitchen	Acute trauma - cut - slip - burn	1. Upper extremity	

Note. QUAN = Quantitative, QUAL = Qualitative, MSD = Musculoskeletal Disorders

As long as more informative OSH training is given at adequate frequencies/intervals, personnel will achieve a higher level of awareness, and employee-related accidents will be reduced. It would

also benefit enterprises in terms of creating a difference in the relevant market, boosting personnel efficiency, increasing customer satisfaction, and service quality, and reducing insurance costs (Oğur, 2017). Considering the ever-increasing turnover rates in particularly the accommodation sector, it is crucial to deploy the necessary conditions for a secure work environment. Otherwise, absenteeism of employees due to injuries caused by OA or lack of concentration due to stress levels will weaken the competitive edge of establishments (Sönmez et al., 2017). Regardless of the economic and administrative dimensions of the issue, every accident and illness due to the inadequacy of OSH will have physically, psychologically, and socially adverse effects and ramifications.

Accommodation establishments are classified as *low hazardous*. However, the sector needs careful consideration in terms of OSH due to its inherent qualities. According to the data of the Social Security Institution, 2% of approximately 360,000 OA encountered in Turkey in 2017 occurred in the accommodation sector and this ratio rose to 4% in 2019. Although the rate of fatal accidents has decreased, OA in only the F&B sector have annually ranked number one with an accident ratio of 6%, even surpassing the construction sector (Social Security Institution, 2019). Furthermore, according to an assessment based on the results of the Labor Force Survey in 2013, the number of OA encountered by personnel working in the Turkish tourism sector that should have been notified is more than eight-fold (Akkuş & Çavuş, 2016). Accordingly, one might put forward that this rate would be more than four-fold for the accommodation sector.

## Methods

This study aims to find an answer to how F&B department employees encounter OA in general. The data were collected via telephone interviews and assessed through content analysis. For this study, content analysis can be described as the systematic examination of the interview texts (Saldana, 2011) to identify the patterns of experiences of the participants (Patton, 2015). By using content analysis, one can make data reduction by finding themes or patterns (Patton, 2015).

The interviews were recorded and transcribed. The content consisting of 30 pages from 10 documents because of the interviews was put through the MaxQDA 2020 (VERBI Software, 2019). MaxQDA is a qualitative data analysis program that has a user-friendly interface. While analyzing the data, a draft code list based on literature was created and the final code list was shaped after analyzing the entire content. The validity and reliability of the research were approached in two stages: (1) External validity via selecting participants with characteristics and diversity to reflect the purpose of the study (purposeful sampling) and referring to statements of participants through direct references given in the findings section (detailed description), (2) internal validity by interviewing participants from different establishments and supporting the findings with statistics and literature.

## Sample

The population of the study consists of service sector employees within the F&B department of the accommodation sector in Turkey. As the study aims to access and include people who had OA, purposeful sampling was employed. Purposeful sampling, a non-probability sampling technique, is widely used in qualitative studies to reach information-rich participants (Palinkas et al., 2015). The sample consists of F&B employees who volunteered to take part in the study. All the



participants were working at resort hotels which aimed at similar markets in İzmir, Aydın, and Muğla provinces of the Aegean Region. By using their personal relationships, the authors reached F&B employees who had had at least one occupational accident. The hotels of the Aegean region were determined to access the participants easily.

### ***Data Collection***

The data were collected via telephone interviews by means of a structured form. Questions in the form consisted of whether these employees received OSH training, what type of accident they encountered, the reasons, results, and five open-ended questions on how they could be prevented. Telephone interviews with ten people were conducted within 15 days in November and December in 2019.

### **Findings**

The findings section contains descriptive statistics and the results of the content analysis. Content analysis revealed two themes named *OA* and *OSH*. Under the *OA* theme, four different categories and sub-codes were established: type of accident, type of injury, reason of injury, and result. Two main categories established under the *OSH* theme are training and prevention.

### ***Profile of the Participants***

The majority (7) of the participants are male (see Table 3). Most are single and university graduates. Their ages range between 19 and 28, while their work experience ranges from three months to nine years. Despite the explorative and qualitative nature of this study, it would be beneficial to supply data from the population. Two-thirds of the accommodation industry in Turkey consists of male employees (Social Security Institution, 2019). According to a survey from the Ministry of Labor and Social Security, 54% of the employees from coastal regions are between the age of 18-30, and 15% of those have a university degree (Ministry of Labor and Social Security of the Turkish Republic, 2011).

**Table 3.** Profile of Participants

Participant	Gender	Age	Education	Experience (years)
P1	Female	22	University	5
P2	Male	25	University	3
P3	Male	25	High School	6
P4	Male	25	University	2
P5	Male	25	University	5
P6	Male	19	High School	3
P7	Male	24	University	4
P8	Female	23	University	<1
P9	Female	28	University	9
P10	Male	26	University	2.5

### ***Occupational Accidents (OA)***

Within the scope of the study, ten people who were interviewed were asked about their previous OA, and data analysis was made on a total of 12 separate OA (see Table 4). As a result of the content analysis conducted, four different categories and sub-codes were established under the *OA* theme, which was listed as type of accident, type of injury, reason of injury, and result. Figures given in the tables in parenthesis indicate the number of accidents encountered by participants.

Most of these OA result from acute trauma (18). OA resulting in acute trauma can be listed respectively as falls/fall downs (8), cuts (5), burns (3), crashes/electric shocks (2), and MSD related OA are coded as sprains/strains (2). The group *falls/fall downs* includes two separate codes which are falling due to slippery floors (4), and having an object fall down on your body (4). The reason for participants to slip and fall is leaving the cleaned floors wet or puddles/wet patches on the floors: "...I slipped while I worked background... I slipped because it was wet, and I also bumped into the cabinets and fell quite badly. I had injuries in my hip and leg, and I had some bruises". (P1, female, 22, falls, continued working)

Falls are mostly due to spillage of boiling liquids in service carts. All accidents related to burns (3) are due to boiling liquids that tipped over participants. Cuts (5) were due to cutting their hands while slicing lemons or opening bottles. Crashes (2) resulted from colliding after falling on slippery floors and colliding with clearing carts.

Types of injuries refer to which part of the body the injury occurred in. The occupational accident reports of the Social Security Institution were taken into consideration when establishing these sub-codes. Parts coded as arm (5), leg (5), spine (2), and head (1) are parts of the body that are most frequently injured. The majority of those with arm injuries due to OA have stated they injured their hands. While injuries in their hands mostly resulted from cuts, injuries on arms were related to boiling water. Most of the leg-related OA resulted in foot injuries. Foot injuries include sprained ankles, ruptured ligaments, cuts, and burns. Spinal injuries were related to hip and waist injuries and OA that occur in the head are related to cuts in eyelids due to smashed bottles.

**Table 4.** Occupational Accidents (OA) Encountered by Participants

Type of OA	f	Type of Injury	f	Reason for the OA	f	Result of the OA	f
Acute trauma	18	Arm	5	Unsafe conditions	23	Continued working	4
falls /	8	Leg	5	organizational	12	Leave/medical report	8
fall downs							
cut	5	Spine	2	workplace related	7	same day	2
burn	3	Head	1	structural	4	3 days	4
crash /	2			Unsafe behavior	12	4 days	1
electric shocks							
MSD	2			unintentional fault	6	20 days	1
sprain / strain	2			carelessness	3		
				negligence	3		

Note. f = Frequency, MSD = Musculoskeletal Disorders

The OA fundamentally result from two reasons based on unsafe employee behavior or unsafe working conditions. In other words, they are employee- or environment-related. In the scope of the study, OA were analyzed under two separate codes which are unsafe conditions (23) and unsafe behavior (12) related. After the assessment of five behavioral groups indicated by Esin (2007), unsafe behavior was coded as (a) unintentional fault (resulting from lack of education, experience, etc.); (b) carelessness; and (c) negligence (combining non-compliance with rules with cutting corners).

The OA resulting from unsafe conditions were given three different codes which are organizational (12), workplace-related (7), and structural (4). Organizational unsafe conditions refer to the social factor other than unsafe behavior and were coded as heavy workload (8), being understaffed (2), and giving non-duty tasks (2). Some statements coded under this group can be found below:

It was busy as usual. There was a Kenan Doğulu concert. We collected all the sodas from the warehouse that day. They were so cold you could not even hold them properly. You need to open it with a spoon instead of a bottle opener and of course, it bursts because of the temperature. I cut my hand because I was too close. (P3, male, 25, heavy workload, continued working)

We used to carry umbrellas to the café when it is hot in summer. This required 2 people because they are very heavy. We had difficulty carrying them every day. I tried to do it myself one day as we were understaffed. It was windy, Marmaris is windy towards the end of summer, and the umbrella collapsed on top of me suddenly. I fell flat on my back. (P10, male, 26, being understaffed, same day leave)

Right before the festive holiday, check-ins and check-outs were very busy, I was trying to catch up. Our bellboy was having trouble too. They wanted help. I tried to help by lifting suitcases from the cars. Just as I was next to the customer, I lifted it and hurt my back. I froze, it was so heavy that I hurt my back. (P2, male, 25, giving non-duty tasks, continued working)

Workplace-related unsafe conditions refer to the physical layout of the workplace or physical equipment necessary for safety and were coded as not renewing old furniture (2), unhealthy lodging conditions (2), faulty design of workplaces (1), lack of warning signs (1), and not providing protective equipment (1). Some statements coded under this group can be found below: “The minibars were old. The same minibars had been used for many years. It was very difficult to open them.” (P2, male, 25, not renewing old furniture, 3-day leave). “... the bar was small as I said, that’s why. It wouldn’t have happened if our workspace was larger.” (P8, female, 23, faulty design of workplaces, same day leave). “... there was no warning sign, there wouldn’t have been such an accident if there was a sign, we kept rushing through that area, so it wasn’t noticed” (K1, female, 22, lack of warning signs, continued working)

Structural unsafe conditions refer to the dangerous nature of the job and were coded as working on night shifts (1), working with heavy materials (1), working with sharp/piercing tools (1), and working with hot/boiling service carts (1). Some statements coded under this group can be found below:

I had cut my hand. I can never look at blood, I faint. I cut my hand while cutting a lemon, I felt bad and dizzy. I fainted. We don’t have many customers during night shifts. There is no supervisor to audit, there is only a night shift manager. He found me after several hours. Of course, the blood flow had stopped by that time, there wasn’t much blood anyway. (P5, male, 25, working on night shifts, continued working)

... I don’t think it is possible to condone carrying (heavy) umbrellas to other locations every day at a 5-star hotel. (P10, male, 26, working with heavy materials, same day leave)

Statements of participants indicating that they encountered OA due to the unsafe behavior of their colleagues or themselves during the interviews are mostly related to unintentional faults (6), carelessness (3), and negligence (3). Unintentional fault results from rushing (5) and carrying excessive/heavy materials (1). Under this code, it is noticeable that the statements mostly result from busy workloads: “To finish the work as soon as possible, I thought I could do it on my own. I feel I should criticize myself in this situation”. (P10, male, 26, rushing, same day leave). “Because we were very busy those hours. As I rushed...” (P8, female, 23, rushing, same day leave)

While carelessness was put into code as long as the word was uttered by participants in their statements; trying to perform the task alone (1), use of inappropriate tools/equipment (1) and inappropriate behavior (1) were collected under this headline even if the word *negligence* was not directly used. Some statements coded under these higher codes include the following:

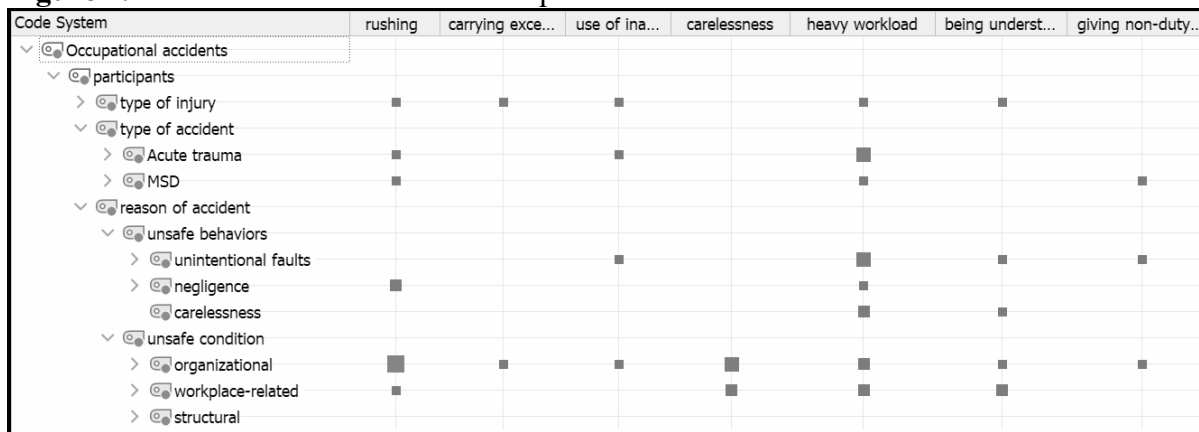
I think this occupational accident happened because of my carelessness. (P4, male, 25, carelessness, continued working)

Our bar was very small. The area where we keep the tea kettle is problematic. It was obviously my mistake; I didn't pay attention. I could have touched it when brewing the tea when we were busy, and it fell. (P8, female, 23, carelessness, same day leave)

It was busy as usual. There was a Kenan Doğulu concert. We collected all the sodas from the warehouse that day. They were so cold you could not even hold them properly. You need to open it with a spoon instead of a bottle opener and of course, it bursts because of the temperature. I cut my hand because I was too close. (P3, male, 25, negligence, continued working)

The relationship between unsafe behavior and unsafe conditions can be better understood through the code relations matrix given in Figure 1. According to this, it is observed that unsafe conditions are highly associated with rushing and carelessness which are coded under unsafe behavior. This is caused especially by the heavy workload. Heavy workload is largely related to rushing, carelessness, negligence, and unintentional faults along with falling, cuts and burns, sprains/strains, and accidents related to the upper extremity.

**Figure 1.** Code Relations Matrix of Occupational Accidents



While most participants who were involved in OA took leave or submitted a medical report (8), other employees (4) have stated that they were obliged to continue working. Participants have had to interrupt their work generally due to non-serious accidents (6) and serious accidents (2).

I didn't take leave that day; I only rested for an hour. (P3, male, 25, continued working)

Our personnel manager didn't like his subordinates very much. They didn't think it was a big deal. They weren't very happy about me moaning in agony because our work starts to become busy in the evenings. We were very busy at the nights and to have a missing employee – I had a very active role – did not appeal to them. I saw the disappointment in their faces, and they even came and reproached me. They didn't even suggest that I go to the community health clinic. I told them I couldn't continue work. Later on, I went to the workplace physician. (P10, male, 26, non-serious accident, same day leave)

...I fell, there was foam on the ground and my foot twisted sideways. It was an occupational accident. I immediately called them, and they took me to the workplace physician. She examined me and said your ankle doesn't look good; it could be broken. I was obviously very anxious about the possibility of a broken bone. We had started works for the beginning of the season. They referred me to the state hospital. Someone took me there. They gave me a 5- or 10-day medical report. Later on, when my medical report

days finished, they gave me another 10-day medical report. I had ruptured my ligaments when I fell. I resigned in April after this. It didn't get any better. It still aches in cold weather. (P9, female, 28, serious accident, 30-day medical report)

### **Occupational Safety and Health (OSH)**

Two main categories were established under the OSH theme, which are training and prevention, and some related sub-codes. Among the participants who were asked whether they had received any OSH training and whether it was adequate, only two (P2 and P6) said they had not and one (P7) said the OSH training was adequate (Table 5). “It was an adequate training, in our other workplaces, the training they give generally takes 5 minutes, so I think even those 2 hours were actually quite enough.” (P7, male, 24, adequate OSH training, 3-day medical report)

Participants who did not think their OSH training was adequate typically complained that the training generally lasted shorter than it should (2), that only theoretical information was given (1), they lacked detail (1), they were superficial (1), they were not department-specific (1), they could not focus due to work fatigue (1) or participation was obligatory, or they could not fully participate due to lack of staff (1) and generally had to listen to advice (1): “They said try not to die, and don't do anything outside of your own task.” (P4, male, 25, giving advice, continued working) “...they could have given examples, shown visuals, given us some actual cases. Training was generally based on written forms; they could include more detail.” (P1, female, 22, superficial/theoretical, continued working)

Participants have stated that the training they receive must be on-the-job/hands-on (6), detailed (3), given by a department employee (2), long term (2), include a reward system (2), be recurrent (1) include a control system (1), include visuals (1) and awareness-raising (1):

Of course, it would be better if the trainers came to my bar and explained to us both, then go to housekeeping and show them in rooms, I mean explaining to us in our own fields: not gathering us in a conference room and speaking for 3 hours. (P5, male, 25, On-the-job/hands-on, 4-day medical report)

I think it should be like this: training and giving this training at the beginning is crucial, it is important to inform personnel on the job and not just with a 30–35-minute training when they start. Rather, to check in on them in the field and give them information in regular intervals and check whether or not they have fully comprehended the information, to check how accurate they perform their tasks through their managers or maybe through a reward system, to see the level of the occupational health application in F&B department, which personnel complied, and which manager gives importance to their application could be assessed through a reward system or a compliment. (P10, male, 26, hands-on/recurrent/reward/control, same day leave)

**Table 5. Findings Related to Occupational Safety and Health (OSH) Training**

<b>OSH training is...</b>	<b>f</b>	<b>OSH training should be...</b>	<b>f</b>
Adequate	1	On-the-job/hands-on	6
Inadequate	7	Detailed	3
short	2	Given by a department employee	2
theoretical information	1	Long term	2
lacking detail	1	Reward system	2
superficial	1	Recurrent	1
not department-specific	1	Control system	1
work fatigue	1	Visual	1
obligatory participation	1	Awareness-raising	1
non-participation due to lack of staff	1		
giving advice	1		

Note. f = Frequency

While the majority (8) of participants have stated that OA they encountered could have been prevented, others (2) said they could not. (Table 6). The reason why these participants feel they could not be prevented is that the OA resulted from their own unsafe behavior:

This accident couldn't have been prevented because it was an individual accident. It happened because of a person... Other accidents can be prevented as long as occupational health training is fully received in detail. But these types of small accidents and carelessness are all down to one person. (P4, male, 25, could not be prevented, continued working)

Participants who feel these OA could have been prevented have stated that changes need to be made in safe conditions (14) and safe behavior (5) respectively. Safe behavior includes the codes of not rushing (1), being more careful (1), acting with higher awareness (1), coming to work with adequate sleep (1), and following rules (1): “This could be done by increasing awareness among personnel. For him it was a joke, a one-minute thing, but accidents happen without warning.” (P5, male, 25, safe behavior, 4-day report)

**Table 6.** Findings on Preventing Occupational Accidents

Can occupational accidents be prevented?	<i>f</i>
Yes	8
No	2
How can occupational Accidents be prevented?	
<u>Safe Conditions</u>	14
Workplace-related	9
floors being dried	3
renewal of old materials/furniture	2
using modern tools/equipment	1
bigger workspaces	1
placing wet floor signs	1
providing protective gear	1
Organizational	5
not giving non-duty tasks	2
solving problems related to being understaffed	2
reducing heavy workloads	1
Structural	0
<u>Safe behavior</u>	5
Not rushing	1
Being more careful	1
Higher awareness	1
Coming to work after adequate sleep	1
Following rules	1

Note. *f* = Frequency

Participants indicated that workplaces can be made secure by eliminating problems arising from the workplace (9) and organization (5). There was no suggestion regarding the structural problems of the job. Workplace-related codes include floors being dried (3), renewal of old materials/furniture (2), using modern tools/equipment (1), bigger workspaces (1), placing wet floor signs (1), and providing protective gear (1); while the organizational codes include of not giving non-duty tasks (2), solving problems related to being understaffed (2), and reducing heavy workloads (1). Some statements under this code can be found below:

Yes, it could have been prevented. They could have mopped the area after they cleaned it, or it could be my mistake because I walked after it had been cleaned so it could be either parties' mistake: or I wouldn't have slipped if they had mopped it. Flat bottomed shoes are likely to slip. (P7, male, 24, unsafe conditions, 3-day report)

## Conclusions

This study which was initiated with the purpose of raising awareness on OSH seeks to find answers to the reasons for OA encountered in the F&B departments of accommodation establishments and how they can be prevented through the perspective of employees. It was detected that participants (a) mostly encounter acute trauma caused by falls/fall downs, (b) they mostly injure their arms and legs which they frequently have to use, (c) two-thirds of OA are due to unsafe conditions; the heavy workload is particularly associated with types of accidents, injuries, and also with unsafe behavior of employees, (d) one-third of the employees continued working despite their accident so the situation was not put into the record; those who went on leave or received medical reports mostly encountered non-serious accidents, (e) the majority of participants feel their OSH training was inadequate and superficial, and they should receive on-the-job OSH training with more detail, vi) most of their accidents can be prevented, and (f) although they own up to their own mistakes, they emphasized that three-fourths of their OA can be prevented by ensuring safe conditions in terms of workplace and organization (Figure 2).

**Figure 2.** Code Relations Matrix of Participants



Based on the 2018 report of TMMOB, it is understood that falling is the most frequently encountered accident with 26%. It is the most highly observed occupational accident in the scope of this study. Studies of Akkuş and Çavuş (2016) put forward those injuries most frequently experienced by accommodation and F&B service employees in the EU result from falling. As stated above, in this study, falls are the most striking occupational accident. Buchanan et al. (2010) detected those OA among hotel employees mostly cause injury in the upper extremity: and the

back and lower extremities are other highly affected body parts. According to studies by Akkuş and Çavuş (2016), 49% of OA encountered by accommodation and F&B service employees in the EU occurred on their arms, 23% in their legs, and 10% in their backs. Arms and legs were the most affected parts in OA for hotel employees in this study as these are the limbs that they use the most while they work.

### ***Theoretical Implications***

According to research findings based on the individual statements of employees, two-thirds of OA result from unsafe conditions. However, when asked about how OA can be prevented, the answer was that creating a safe environment could prevent three-fourths of OA. Therefore, based on the assessments of employees it can be deduced that 67-75% of OA discussed within the scope of this study are caused by working conditions. This finding does not match the literature. To collect the findings from the study conducted by Şahin & Erkal (2010) regarding kitchen staff in city hotels under two groups: while unsafe behavior causes the highest number of OA with 72.1%, unsafe conditions rank second at 20.4%. Üner & Ayberk (2019) have also stated that the main reasons for OA in kitchens are the personnel's lack of know-how regarding OSH and not attaching enough importance to this topic and thus pointed towards unsafe behavior. Another aspect to consider - independent from these ratios- is that while risks resulting from employees (unsafe behavior) generally turn into relatively non-serious accidents, risks resulting from establishments (unsafe situation/environment/condition) lead to more serious individual, social and economic damage due to causing more serious and fatal results.

Training is neither among the possible reasons for OA encountered by participants in the scope of this study nor among the answers participants gave on how they could have been prevented. Thus, it can be concluded that participants who mostly received superficial OSH do not see training as the possible cause for OA they encountered. Nevertheless, when asked *what is being done at the workplace to prevent OA*, the training code has emerged. Accordingly, it can be put forward that the importance of training in OSH studies is not adequately comprehended by either establishments or employees interviewed within the scope of this study. In fact, training is the most crucial method of preventing accidents resulting from employees (unsafe behavior) in restaurants (Dinçer & Utlu, 2017). Studies conducted on occupational safety for the past century have proven the significance of providing OSH training (Hofmann et al., 2017). Studies have shown that the higher the active employee participation, the higher the increase in know-how and performance (Burke et al., 2011). Even though correcting unsafe behavior is more difficult than eliminating unsafe conditions, preventing OA without creating a safety culture among personnel through training and awareness is not possible (Dinçer & Utlu, 2017). If employees can be shown the importance and value of their work – whether small or big- and how it is linked with other tasks, an important step will be taken towards preventing OA. This can only be possible through training and motivation. Training must not only explain how to do the work better and safer but also how the task and general behavior are connected. The fundamental method of ensuring OSH is for accommodation establishments to define widely encountered OA (and the occupational diseases which are out of the scope of this research) in the services they offer, to define risks related to the works, and to take measures to eliminate or at least minimize these risks and to provide support to exert individual and organizational efforts to offer a safe workplace.



### ***Practical Implications***

Based on the findings obtained in this study, the following recommendations can be put forward: first, employees are mostly injured by slips, falls, or fall downs of hot service carts. Necessary training and inspections must be in place for floors to remain dry. Cuts are the second OA that happen while preparing beverages and/or cutting lemon etc. and generally occur when personnel rush because of heavy workloads. Rushing comes first for OA resulting from behavior, while heavy workload comes first from conditions. Moreover, organizational pressure such as heavy workloads, being understaffed, and non-duty work assignments are associated with the careless and negligent behavior of employees. Establishments need to take measures to ease the pressure on employees during rush hours, and training must focus on *slow but safe* work. Delays in services will undoubtedly cause customer dissatisfaction at accommodation establishments where their inseparability becomes important, but it must be kept in mind that customer satisfaction and establishment profitability are built on employee safety and satisfaction.

Secondly, workplaces must not only be rid of employee and/or organizational risks but also from environmental risks. These include renewing old furniture and equipment, carrying out maintenance work, providing protective equipment and gear, using warnings, and informing signs in due times and places. Taking such measures will increase the morale and motivation and thus decrease carelessness of employees. Thirdly, structural risks must be better understood, and training must be on-the-job and planned periodically, starting from the riskiest fields, and an effective inspection mechanism must be implemented. Lastly, employees who have OA must be given time off to rest and recover and human resources must plan training related to the relevant occupational accident upon their return.

### ***Limitations and Future Research***

This research has several limitations. Because of the nature of the qualitative research and the size of the sample it is difficult to generalize findings. Instead of this, a heuristic outlook on OA in the accommodation industry was the aim. Future studies may expand the size of the sample by adding other departments or different hotel types from different regions. Since there is a gap in the studies of OA in the hospitality industry, future research should focus more on how to prevent these accidents by acquiring understanding from both employees and employers.

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