Araştırma Makalesi

# Working Too Hard to Advise You Not to Work Too Hard: Psychosocial Risk Factors and Quality of Life Among Occupational Health and Safety Experts

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Abstract: Consistent findings exist regarding the work-related issues and negative psychological outcomes that occupational health and safety (OHS) experts experience. These findings may be interpreted as OHS experts being prone to certain psychosocial risks at work. This study aims to explore the demographic and work-related determinants of psychosocial risks faced by OHS experts and their quality of life. Data were collected from 101 experts working in the field of occupational health and safety. The sample was composed of 65 male and 36 female experts aged between 21 and 65. The survey battery was composed of three groups of measurements: demographic questions, quality of life items, and NHUMAN PSR-Q

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items. According to the findings, experts in the least experienced group reported higher psychosocial risks about equipment and work environment. B-class experts were found to have tighter work schedules. Those experts who worked in joint health and safety units were at a disadvantaged position concerning psychosocial risks associated with heavy work schedules and quality of life. All 17 domains of psychosocial risks were found to be negatively associated with quality of life. Interpersonal relations subscale was the single most powerful predictor of quality of life. This study contributes to the literature by providing a comprehensive approach to psychosocial risks experienced by OHS experts.

**Keywords**: psychosocial risk factors, workplace safety, work safety, occupational safety and health

# Gereğinden fazla çalışmamanızı tavsiye edebilmek için gereğinden çok çalışıyorum: İş güvenliği uzmanlarında psikososyal riskler ve yaşam kalitesi

Öz: Alanyazında iş güvenliği uzmanlarının deneyimlediği işle ilgili sorunlar ve olumsuz psikolojik çıktılar konusunda tutarlı bulgular mevcuttur. Bu bulgular, iş güvenliği uzmanlarının işte belirli psikososyal risklere yatkın olduğu şeklinde yorumlanabilir. Mevcut çalışma, iş güvenliği uzmanlarının karşılaştığı psikososyal risklerin demografik ve isle ilgili belirleyicilerini ve vasam kalitelerini araştırmayı amaçlamaktadır. Veriler, iş güvenliği alanında çalışan 101 uzmandan toplanmıştır. Örneklem, 21-65 yaşları arasında 65 erkek ve 36 kadın uzmanı içermektedir. Anket bataryası 3 ölçüm grubundan oluşmaktadır: demografik sorular, yaşam kalitesi maddeleri ve NHUMAN PSR-Q maddeleri. Bulgulara göre, en az denevimli gruptaki uzmanlar, özellikle ekipman ve çalışma ortamı konusunda daha yüksek psikososyal risk bildirmişlerdir. B sınıfı uzmanların daha sıkı çalışma programlarına sahip olduğu bulunmuştur. Bulgular, ortak sağlık ve güvenlik birimlerinde çalışan uzmanların, yoğun çalışma programları ve yaşam kalitesi ile ilişkili psikososyal riskler konusunda dezavantajlı bir konumda olduğunu göstermiştir. Psikososyal risklerin alanının tamamı yaşam kalitesiyle negatif olarak ilişkili bulunmuştur. Kişilerarası ilişkiler, iş güvenliği uzmanları arasında yaşam kalitesinin en güçlü tek belirleyicisidir. Bu çalışma, iş güvenliği uzmanlarının denevimlediği psikososval risklere kapsamlı bir vaklasım sunarak mevcut literatüre katkıda bulunmaktadır.

Anahtar kelimeler: psikososyal risk etmenleri, işyeri güvenliği, iş güvenliği ve güvenliği

### Introduction

According to the latest statistics, Türkiye is ranked 11<sup>th</sup> in the list of countries with highest rates of non-fatal occupational injuries and ranked 10<sup>th</sup> in the list of countries with highest rates of fatal occupational injuries per 100 000 workers (International Labour Organization [ILO], 2025). The urgent need for improvement regarding this issue highlights the critical role that occupational health and safety (OHS) experts play in achieving safer workplaces for all.

Titles, roles, and responsibilities of individuals working in the occupational health and safety field have been diverse across countries (Pryor et al., 2019). According to legal regulations in Türkiye, occupational health and safety experts are responsible for providing guidance, conducting risk assessment, maintaining surveillance of the work environment, managing education/training activities and recordkeeping, and cooperating with relevant parties (İş güvenliği uzmanlarının görev, sorumluluk ve eğitimleri [Regulation on the duties, responsibilities and training of occupational safety experts], 2012). Türkiye also agreed to put Labour Inspection Convention, 1947 (No. 81) into force as of 1951, which states that the number of experts should be sufficient to effectively conduct their duties depending on the importance of experts' duties, their material resources, and practical conditions regarding the work (International Labour Organization, 1947).

Despite the presence of comprehensive legal regulations, Türkiye is among the countries with the fewest experts per employee (International Labour Organization, 2025), which results in experts having issues in effectively conducting their duties. There is a wealth of research regarding the issues that occupational health and safety experts face, which are further explored below. It should be noted that a vast majority of these studies employed interviews as the data collection method and descriptive statistics for the analysis, which indicates a lack of research using inferential techniques.

## **Issues Faced by OHS Experts**

Several studies examined the issues faced by occupational health and safety experts in Türkiye. In one of these studies, Arslan and Ulubeyli (2016) reported that the major issues that OHS experts experience were employer interventions, feeling of being dependent on the employer, inadequate working and auditing hours, and receiving the salary from the audited company. More recent work shows that

dependence on employer remains an issue for OHS experts, since termination of work and payment of salary can be used as leverage by their employers (Erkanlı Basbüyük, 2023). In another study, Taskıran (2016) stated that audit mechanism was ineffective due to problems such as the dynamics of employer-expert relationships (i.e. imposing sanctions to the employer as part of their duty, while being paid by the same employers), heavy workloads, and being underpaid, especially in the joint health and safety units. Baskan Takaoğlu et al. (2018) claimed that issues in education/training (e.g. time pressure, unwillingness of employees, lack of safety culture), financial problems (e.g. being underpaid, heavy workload, employers providing a low budget for OHS activities), and legal issues (e.g. limitations in authorization, being held responsible for accidents) were common among experts. Similarly, Erdoğan and Genç (2023) reported that poor communication and cooperation were the most prominent problems between OHS experts and other OHS personnel, whereas not caring about safety as well as not fulfilling safety requirements were the most prominent problems between OHS experts and other employees. Taken together, these studies suggest that the occupational health and safety experts face several issues that remain unsolved.

# **Psychological Outcomes among OHS Experts**

Another line of research deals with negative psychological outcomes among occupational health and safety experts in relation to various demographic variables. For instance, Aytaç et al. (2016) reported that differences were observed in stress and burnout levels of OHS experts based on gender, certificate class, and working conditions. Specifically, female experts, B and C class certificate holders, and those working in joint health and safety units and public workplaces showed increased symptoms of stress and burnout. Their findings regarding group differences were supported by the path analysis they conducted. Importantly, work stress was found to be negatively associated with commitment, which was positively associated with occupational health and safety performance (Olcay et al., 2021).

Similar to Aytaç et al. (2016), Tuna (2021) found group differences among occupational health and safety experts in terms of certificate class and working conditions. He claimed that experts holding B or C class certificates, and those working in joint units had higher trait anxiety levels compared to those holding an A class certificate and those working individually. Moreover, results of his regression analysis indicated that the work-related problems of OHS experts (e.g. lack of awareness by the employer, employees not caring about safety, and so on) explained 23% of the variance in trait anxiety levels of experts. Other studies reported several group differences based on work experience, gender, certificate

class, and working conditions in terms of satisfaction with work (Cerev, 2018; Karakaya, & Sancı, 2017), and satisfaction with life (Aytaç et al., 2020). These findings highlight the relationship between demographic and work-related factors, and psychological issues.

# **Psychosocial Risks among OHS Experts**

As described above, consistent findings exist regarding the work-related issues and negative psychological outcomes that occupational health and safety experts experience. These findings may be interpreted as OHS experts are susceptible to certain psychosocial risks at work. Psychosocial risks in the context of occupational health and safety can be defined as increased likelihood of experiencing stress due to the design or management of work (International Labour Organization, 2022). ILO lists several common psychosocial risks including job content or task design, workload and pace, job control, environment, equipment, organizational culture, interpersonal relationships, roles, career development, and home-work interference. According to another recent conceptualization by Leka and Jain (2024), a psychosocial risk is the potential of a psychological hazard, which may stem from work organization or design and management (e.g. work demands, rewards, interpersonal relationships), to cause harm. Comparing the two definitions, it can be inferred that design and management of work is an integral component of psychosocial risks.

The laws of many industrialized countries recognize psychosocial risks as a priority area, yet their implementation appears insufficient (Jain et al., 2021). According to the findings of Sahan et al. (2021), psychosocial risk assessment is not performed regularly and there is a need for guidelines identifying standard approaches in Türkiye. One potential cause of insufficient implementation could be that psychosocial risk factors are difficult for the experts to evaluate due to being "invisible" (Johnstone et al., 2011). In other words, the covert nature of these risks could potentially hinder their detection and management.

The first step in the management of psychosocial risks is to define the psychosocial hazards, and this is done through several standardized questionnaires (Akkaya, & Ocaktan, 2023). An important step in the assessment of psychosocial risks was the development of NHUMAN PSR-Q, which is a comprehensive tool measuring psychosocial risks (Küçük et al., 2023). NHUMAN PSR-Q was a valuable contribution to the assessment of psychosocial risks, since it was developed in the Turkish context in line with national and international standards.

Regardless of the measurement tool, psychosocial risks have begun to attract attention from researchers working in the occupational health and safety

field in Türkiye in recent years. Research examined psychosocial risks among employees from a variety of sectors including healthcare workers (Babaoğlu, & Bahar, 2024; Gültekin Sakar et al., 2024; Kırılmaz et al., 2016), academicians (Baykan, & Senemtası Ünal, 2022), miners (Isik et al., 2022a; Mutlu, & Kalkan, 2023), textile workers (Arkan Demiral et al., 2023), and so on. However, psychosocial risks among occupational health and safety experts were not investigated previously. It is important to investigate psychosocial risks among OHS experts, since previous research reported job-specific differences in the psychosocial risk profiles (Stauder et al., 2017). In that sense, examining the psychosocial risk profile of OHS experts could represent the first step in identifying the priority intervention areas in resolving the above-mentioned workrelated issues. Previous work examining the work-related issues of OHS experts in Türkiye, including the psychosocial risks they faced, relied heavily on qualitative research methods (Arslan, & Ulubeyli, 2016; Erdoğan, & Genc, 2023; Erkanlı Basbüyük, 2023; Karakuyu, & Erdoğan, 2017; Taskıran, 2016). The current study adopts a quantitative approach in identifying psychosocial risks, which is the novel aspect of this work.

# **Purpose of the Study**

Based on the available research, the current study aims to explore the demographic and work-related determinants of psychosocial risks faced by OHS experts and their quality of life. Moreover, the relationship between these psychosocial risks and quality of life will be explored. In other words, the 2 research questions addressed by this work are: "Are there any differences in the psychosocial risk exposure and quality of life across OHS experts with different demographic and work-related characteristics?" and "Are psychosocial risks associated with quality of life among OHS experts?".

Quality of life corresponds to the extent to which the person's life meets the standards of a good life (Veenhoven, 2023). The term is often used interchangeably with subjective well-being, which is composed of affect, general life satisfaction, and satisfaction with specific domains including work, health, and so on (Theofilou, 2013). Quality of life is an important variable of interest, considering its consistent association with lower mortality risk (Phyo et al., 2020). As mentioned above, several studies explored work-related problems and psychological outcomes among OHS experts, yet the psychosocial risks they were exposed to have not been explored systematically or in relation to quality of life before. Hence, this study is the first, to the best of the authors' knowledge, to explore psychosocial risks and their relation to quality of life among OHS experts.

Considering the previous research reporting group differences based on certificate type and working conditions (Aytaç et al., 2016; Aytaç et al., 2020), similar group differences are expected in terms of both psychosocial risks and quality of life. Furthermore, psychosocial risks are expected to be negatively related to quality of life among OHS experts, based on the similar associations between work-related problems and stress (Tuna, 2021).

## Method

### **Participants**

Data were collected from 101 experts working in the field of occupational health and safety. Their age ranged between 21 and 65 (M = 41.75, SD = 9.64). The sample was composed of 65 male and 36 female experts. Of these 101 participants, 93 had occupational health and safety expert certificate (48 had A-class, 29 had Bclass, and 15 had C-class certificate, 1 missing) and 8 had other certifications such as the National Examination Board in Occupational Safety and Health (NEBOSH) International Diploma. On average, they were actively working in the field of occupational health and safety for 10.45 years (SD = 6.26). The participants joined the study from various cities in Türkiye including Aksaray, (N = 5), Ankara (N =36), Antalya (N = 2), Aydın (N = 2), Balıkesir (N = 4), Bursa (N = 2), Diyarbakır (N = 1), Gaziantep (N = 1), Hatay (N = 1), İstanbul (N = 10), İzmir (N = 23). Kocaeli (N = 5), Kütahya (N = 2), Malatya (N = 1), Mersin (N = 1), Sivas (N = 1), Tekirdağ (N = 1), Yalova (N = 2), as well as north of Iraq (N = 1). Finally, 32 participants worked at joint health and safety units, 33 worked full-time at private companies, 20 worked at public companies, 1 worked part-time individually, 2 gave external consultation, and 12 were retired yet actively working.

### **Procedure**

Before starting data collection, ethical approval was obtained from the Middle East Technical University Human Subjects Ethics Committee (Protocol no: 0557 ODTUİAEK-2024). An online survey battery was formed using Google Forms, including an informed consent, demographic questions, quality of life measurement, and NHUMAN PSR-Q. Data collection started on 29 November 2024 and ended on 19 January 2025. Snowball and convenience sampling methods were used in reaching potential participants. The researcher recruits' people by asking the small number of available participants to suggest potential participants' names with snowball sampling method. Convenience sampling is a method with no clear patterns in recruitment, meaning that whoever is available to the

researcher is invited to the study. Both methods are considered as non-probability sampling methods, where the members of the study population do not have an equal chance to participate in the research (Galloway, 2005). Snowball sampling is particularly a favorable technique when the sample is consisted of a specific group of individuals. Since the main inclusion criterion of this study was working in the field of occupational health and safety, these two methods were thought to be more efficient. Eligible participant candidates in the researchers' social networks were invited to the study by social media channels. Also, they were asked to share the survey link with their own eligible contacts.

### Instruments

The survey battery was composed of 3 groups of measurements: demographic questions, quality of life items, and NHUMAN PSR-Q items. Demographic questions included age, gender, type of certificate, active work experience (in years), current city of work, and working conditions. Following the demographic questions, the participants responded to 2 items regarding their quality of life. These were: "How would you rate your quality of life?" and "How satisfied are you with your health?". The 2 items were taken from the World Health Organization's longer survey of quality of life (World Health Organization, 2024). Together these 2 items represent an overall indicator of quality of life, therefore their average was computed to obtain an overall score of quality of life in the analyses.

In the third part of the online survey battery, the participants responded to NHUMAN PSR-Q. This instrument contains 84 items rated on a 5-point Likert type scale (0 = Strongly disagree, 5 = Strongly agree) and measures psychosocial risks at work in terms of 17 domains (Küçük et al., 2023). These domains were: leadership (12 items), harassment (4 items), respect (4 items), career development (5 items), interpersonal relations (4 items), bullying (6 items), work-life balance (4 items), recognition (7 items), violence (4 items), support (5 items), workload (3 items), task design (8 items), work schedule (3 items), organizational change management (3 items), job control (3 items), equipment (5 items), and work environment (4 items). Higher scores in each domain indicate increased psychosocial risk levels. The Cronbach alpha internal consistency values for the 17 domains were calculated as .96 for leadership, .86 for harassment, .92 for respect, .93 for career development, .83 for interpersonal relations, .86 for bullying, .89 for work-life balance, .95 for recognition, .94 for violence, .91 for support, .94 for workload, .96 for task design, .85 for work schedule, .92 for organizational change management, .87 for job control, .93 for equipment, and .91 for work environment in this study.

### Statistical Analyses

Initially, group differences in quality of life and psychosocial risks were examined. Specifically, differences in the outcome variables were explored based on gender, work experience, certificate class, and working conditions. In doing so, several one-way between-subjects analyses of variance (ANOVA) were conducted. When the homogeneity of variances assumption was violated, the robust Welch statistic is reported instead of the standard F statistic. In case of obtaining a significant result, post-hoc comparisons were made using Bonferonni correction for standard analyses and Games-Howell correction for robust analyses.

Next, the associations between psychosocial risks and quality of life were investigated. In exploring these associations, Pearson correlation coefficients were computed, and a regression analysis was conducted. All the analyses were run using the Statistical Package for the Social Sciences (SPSS, version 28.0).

## Results

## **Group Differences**

The first set of ANOVAs compared male and female experts' psychosocial risk levels and quality of life scores. According to the results, no significant group differences were observed in terms of the 17 domains of psychosocial risks and quality of life levels.

The second set of ANOVAs compared those experts who had been actively working in the field for 1-5 years, 6-10 years, and 11 or more years. According to the results, the experts showed significant differences in terms of harassment (F(2,98) = 3.40, p < .05,  $\eta^2 = .07$ ), task design  $(F_{Welch}(2, 42.07) = 3.35, <math>p < .05, \eta^2 = .07)$ , organizational change management ( $F_{Welch}(2, 42.76) = 3.71, p < .05, \eta^2 = .07$ ), equipment  $(F(2, 98) = 3.98, p < .05, \eta^2 = .08)$ , and work environment (F(2, 98) =4.30, p < .05,  $\eta^2 = .08$ ). According to post-hoc comparisons, no group differences were observed in terms of harassment, task design, and organizational change management. Those experts with 1-5 (M = 2.34, SD = 1.02) years of experience reported higher levels on equipment compared to those with 11 or more (M =1.74, SD = .62) years of experience. Those with 6-10 (M = 2.16, SD = .95) years of experience did not differ from both groups in terms of equipment. Similarly, experts with 1-5 (M = 2.58, SD = .95) years of experience reported higher levels of work environment in comparison with those with 11 or more (M = 1.80, SD =.88) years of experience. Those with 6-10 (M = 2.01, SD = .98) years of experience did not differ from both groups in terms of work environment.

The third set of ANOVAs compared the occupational health and safety experts based on their certificate class. According to the findings, the experts showed significant group differences in terms of violence ( $F_{Welcb}(3, 26.17) = 3.44, p < .05, \eta^2 = .08$ ), and work schedule ( $F(3, 96) = 3.53, p < .05, \eta^2 = .10$ ). Post-hoc comparisons did not yield a significant result for violence. However, it was found that B-class experts (M = 2.45, SD = 1.19) reported higher scores on work schedule compared to A-class experts (M = 1.75, SD = .70). C-class experts (M = 2.00, SD = .90) and other experts (i.e. holding other certification; M = 2.00, SD = .91) did not differ significantly from any of the groups.

In the fourth and last set of ANOVAs, experts were compared based on their working conditions. In this section, the 12 retired experts were distributed into other categories based on their second answer to the question regarding their workplaces. Specifically, 5 experts stated working at joint OHS units, 4 experts stated working full-time at private companies, and 3 experts stated working parttime individually. Due to a low number of participants in the other conditions, only those working at joint units, private companies, and public companies were included in the analysis. The results showed that experts differed based on harassment  $(F_{Welch}(2, 42.46) = 3.41, p < .05, \eta^2 = .07)$ , work schedule (F(2, 91) =3.80, p < .05,  $\eta^2 = .08$ ), and quality of life  $(F(2, 91) = 3.24, p < .05, \eta^2 = .07)$  levels. Post-hoc comparisons did not yield a significant result for harassment. On the other hand, it was found that those who worked at joint OHS units (M = 2.29, SD= 1.03; M = 3.07, SD = .71, respectively) scored higher on work schedule compared to those who worked at public institutions (M = 1.62, SD = .77) and also scored lower on quality of life compared to those who worked full-time at private companies (M = 3.43, SD = .53).

# Relationship between Psychosocial Risks and Quality of Life

Pearson correlation coefficients were calculated to examine the bivariate relationships between the demographic variables, psychosocial risk domains, and quality of life among OHS experts. According to the results, work experience was negatively correlated to equipment (r = -.24, p < .05) and work environment (r = -.22, p < .05). In a similar vein, monthly income was negatively associated with equipment (r = -.25, p < .05) and work environment (r = -.23, p < .05); but positively correlated to quality of life (r = .37, p < .001).

All 17 domains of psychosocial risks were negatively correlated with quality of life among OHS experts. To specify, Pearson correlation coefficients were -.25

(p < .05) for leadership, -.24 (p < .05) for harassment, -.22 (p < .05) for respect, -.27 (p < .01) for career development, -.37 (p < .001) for interpersonal relations, -.35 (p < .001) for bullying, -.24 (p < .05) for work-life balance, -.23 (p < .05) for recognition, -.30 (p < .01) for violence, -.26 (p < .01) for support, -.24 (p < .05) for workload, -.30 (p < .01) for task design, -.32 (p < .01) for work schedule, -.29 (p < .01) for organizational change management, -.31 (p < .01) for job control, -.36 (p < .001) for equipment, and -.34 (p < .001) for work environment.

A multiple regression analysis was conducted to explore the relationship between psychosocial risks and quality of life further. In the analysis, quality of life was the outcome variable. Based on its significant correlation to quality of life, monthly income was entered at the first step as the control variable. At the second step, 17 psychosocial risk domains were entered as the main predictor variables. The forward selection method was chosen to understand which domain(s) make the highest contribution in explaining the variance in quality of life. According to the results, models were significant at both first (F(1, 99) = 15.31, p < .001,  $Adj.R^2 = .13$ ) and second (F(2, 98) = 17.53, p < .001,  $Adj.R^2 = .25$ ) steps. Monthly income was positively associated with quality of life at the first step ( $\beta = .37$ , p < .001), whereas both monthly income and interpersonal relations were associated with it at the second step ( $\beta = .36$ , p < .001;  $\beta = -.36$ , p < .001, respectively). As the score on interpersonal relations increased, life quality decreased among OHS experts. In other words, as the work-related interpersonal relations worsen, quality of life declines.

## **Discussion**

This study examined the relationship between demographic variables, psychosocial risks, and quality of life among OHS experts. In examining these relationships, several group comparisons were made. According to the findings, occupational health and safety experts did not differ in terms of psychosocial risks and quality of life based on their gender. This was in accordance with Tuna (2021), and Karakaya and Sanci's (2017) non-significant findings across genders on trait anxiety, and satisfaction with work. However, other studies reported significant differences between male and female OHS experts in terms of stress and emotional exhaustion (Aytaç et al., 2016), satisfaction with work (Cerev, 2018), and happiness (Aytaç et al., 2020). Hence, findings seem to be inconsistent in terms of psychological outcomes among male and female occupational health and safety experts.

This study found that experts in the least experienced group reported higher psychosocial risks, specifically concerning equipment and work environment. This was in line with Cerev's (2018) finding that more experienced experts had higher

work satisfaction. In fact, these two domains, along with others, were also found to be negatively correlated with quality of life in this study. It is possible that insufficiencies in equipment and challenging work conditions might hinder work and life satisfaction among less experienced experts. Further studies should be conducted to explore the potential causal relationships between these variables.

Comparisons based on certificate class are common in the existing literature. For instance, Cerev (2018) found that B-class certificate holders experienced higher work satisfaction. On the other hand, Aytaç et al. (2016) and Tuna (2021) found that B and C-class holders had higher stress and burnout levels. Additionally, Aytaç (2020) reported higher happiness and life satisfaction among A-class certificate holders. In this study, B-class experts were found to have tighter work schedules, aligning with the findings of Aytaç et al. (2016), Tuna (2021), and Aytaç et al. (2020). Similar to the findings regarding gender, certificate class-based comparisons yield inconsistent results and require further investigation.

In this study, occupational health and safety experts' work schedules and quality of life levels differed based on their working conditions. Specifically, the findings showed that those experts working in joint health and safety units were at a disadvantage concerning psychosocial risks associated with heavy work schedules and quality of life. This finding was in line with previous studies reporting excessive work hours and insufficient salaries among OHS experts working at joint units (Aca, & Göze, 2020; Başkan Takaoğlu et al., 2018; Karakuyu, & Erdoğan, 2017; Taskıran, 2016). In addition, Karakuyu and Erdoğan (2017) found that satisfaction with work was rated as very low among 14%, low among 20%, moderate among 47%, and high among 18% of OHS experts working at joint units. None of the 49 experts in their study reported being highly satisfied with their work. Importantly, Özenir (2021) reported that heavy workload is associated with an increased intention to leave both the job and the occupation among OHS experts, and this relationship was mediated by emotional exhaustion. When these findings are interpreted as a whole, importance of identifying psychosocial risks associated with work conditions, especially among those experts working in joint OHS units, is highlighted.

An important finding of this work was the consistent negative associations between psychosocial risks and quality of life among OHS experts. All of the 17 domains of risks were negatively associated with quality of life. Further, after controlling for the effects of monthly income, interpersonal relations subscale emerged as the single most powerful predictor of quality of life among OHS experts. Hazards related to interpersonal relations include, but are not limited to, social or physical isolation, interpersonal conflict, poor relationships with supervisors, and poor social support (Leka, & Jain, 2010). Work requirements of

OHS experts requires them to maintain communication with a wide range of individuals, including employees, employee representatives, supervisors, and managers. It is highly likely that the demands of different groups conflict with each other, resulting in interpersonal issues standing out compared to other psychosocial risk factors. Previous research found that interpersonal relations dimension yielded the second highest correlation and regression coefficients with stress, following work role (Živković et al., 2021). A similar finding was reported in Işık et al.'s (2022b) study, in which they reported that psychosocial risks related to social support and sense of community negatively predicted well-being among coal miners. The links between poor interpersonal relations, and poor quality of life and job satisfaction have also been well-documented in the international literature employing samples from various occupations (Asante et al., 2019; Goetz et al., 2015; Lincke et al., 2021).

## Strengths, Limitations and Suggestions

According to the Labour Inspection Convention, the number of occupational health and safety experts should be enough to allow them to effectively conduct their duties. Unfortunately, both ILO statistics and previous studies conducted in Türkiye indicate that OHS experts have a high workload, in addition to other issues, that predispose them to psychosocial risks at work. The current study was the first to explore these psychosocial risks and their relation to quality of life among OHS experts actively working in the field. Whereas previous studies examined various psychosocial risks in isolation through group comparisons (i.e. by gender, experience, certificate class, and so on), this study adopted a more comprehensive approach and conducted similar group comparisons in a wider array of psychosocial risks. Also, interrelations between these risks and quality of life were examined for the first time, to the best of the authors' knowledge.

The study provides valuable insights regarding the specific risks present among different groups of experts. On the other hand, it also bears several limitations. One of these limitations is about the sample size. According to the unofficial statistics, there were 137,959 OHS experts in Türkiye at the end of 2022 (Çakır, 2022). Unfortunately, data was collected from a relatively small portion of the study population. Hence, future studies should aim to replicate the findings with a larger sample. Additionally, due to the correlational nature of the analyses, a causal link cannot be established between psychosocial risks and quality of life. Other researchers could investigate the causal links between psychosocial risks and quality of life, as well as other outcome measures such as psychological symptoms.

### Conclusion

Occupational health and safety experts search for hazards at the workplace that may cause harm to other people, yet they are being exposed to several psychosocial hazards while conducting their duties. This study contributes to the available literature by providing a comprehensive approach to psychosocial risks experienced by occupational health and safety experts. According to the findings, experts are exposed to different risks based on their experience, certificate class, and working conditions. The work schedule was an important risk factor for B-class experts and those working at joint units. This finding implies that the working conditions of OHS experts need improvement, which was a widely reported finding in previous studies as well.

Importantly, psychosocial risks that they face may negatively influence the life quality of OHS experts. Among others, interpersonal relations subscale was the dimension that stood out. This shows that what happens at work does not stay at work. Findings of this study are important since increase in the psychosocial risk exposure is associated with deteriorated physical and mental health (Fernandes, & Pereira, 2016; van der Molen et al., 2020), in addition to quality of life. OHS experts play a pivotal role in providing safe workplaces for employees, yet they cannot do it at the expense of their own well-being. Results of this study show that improving interpersonal relationships between the involved parties could be considered as a priority area in increasing life quality of OHS experts. Considering the previous findings regarding the work-related problems of this group (Arslan, & Ulubeyli, 2016; Erdoğan, & Genç, 2023; Erkanlı Başbüyük, 2023; Taşkıran, 2016), decreasing the dependence on employers and improving communication and cooperation between all stakeholders become conspicuous in relation to interpersonal relations.

# Genişletilmiş Özet

Güncel istatistiklere göre Türkiye, ölümcül olmayan iş kazası oranlarının en yüksek olduğu ülkeler listesinde 11. sırada, 100.000 çalışan başına ölümcül iş kazası oranlarının en yüksek olduğu ülkeler listesinde 10. sırada yer almaktadır (Uluslararası Çalışma Örgütü [ILO], 2025). Bu konuda acil iyileştirme ihtiyacı, iş güvenliği uzmanlarının herkes için daha güvenli işyerleri elde etmede oynadığı kritik rolü vurgulamaktadır.

Aytaç vd. (2016), iş güvenliği uzmanlarının stres ve tükenmişlik düzeylerinde cinsiyete, belge sınıfına ve çalışma koşullarına göre farklılıklar bulunduğunu bildirmiştir. Özellikle kadın uzmanların, B ve C sınıfı belge sahiplerinin ve ortak

sağlık ve güvenlik birimlerinde ve kamuda çalışan uzmanların stres ve tükenmişlik belirtilerinin daha yüksek olduğu raporlanmıştır. Araştırmanın grup farklılıklarına ilişkin bulguları, yol analizi ile de desteklenmiştir. Bir diğer çalışmada da iş stresinin işe bağlılıkla negatif ilişkili olduğu, bunun da iş sağlığı ve güvenliği performansıyla pozitif ilişkili olduğu bulunmuştur (Olcay vd., 2021).

Alanyazında mevcut bulgular, iş güvenliği uzmanlarının işyerinde belirli psikososyal risklere yatkın olduğu şeklinde yorumlanabilir. İş sağlığı ve güvenliği bağlamında psikososyal riskler, işin tasarımı veya yönetimi nedeniyle stres yaşama olasılığının artması olarak tanımlanabilir (Uluslararası Çalışma Örgütü, 2022). ILO, iş içeriği veya görev tasarımı, iş yükü ve hızı, iş kontrolü, çevre, ekipman, örgüt kültürü, kişilerarası ilişkiler, roller, kariyer gelişimi ve ev-iş müdahalesi gibi yaygın psikososyal riskleri listelemektedir. Psikososyal riskler son yıllarda Türkiye'de iş sağlığı ve güvenliği alanında çalışan araştırmacılar tarafından ilgi görmeye başlamıştır. Araştırmalar sağlık çalışanları (Babaoğlu ve Bahar, 2024; Gültekin Sakar vd., 2024; Kırılmaz vd., 2016), akademisyenler (Baykan ve Senemtaşı Ünal, 2022), madenciler (Işık vd., 2022a; Mutlu ve Kalkan, 2023), tekstil işçileri (Arkan Demiral vd., 2023) dahil olmak üzere çeşitli sektörlerden çalışanlar arasındaki psikososyal riskleri incelemiştir. Ancak daha önce iş güvenliği uzmanlarında psikososyal riskler araştırılmamıştır.

Mevcut alanyazına dayanarak, bu çalışma iş güvenliği uzmanlarının karşılaştığı psikososyal risklerin demografik ve işle ilgili belirleyicilerini ve yaşam kalitelerini araştırmayı amaçlamaktadır. Ayrıca, psikososyal riskler ile yaşam kalitesi arasındaki ilişki bu çalışma kapsamında araştırılacaktır. Yukarıda belirtildiği gibi, bir dizi çalışma iş güvenliği uzmanları grubunda işle ilgili sorunları ve bunlarla ilişkili psikolojik sonuçları araştırmıştır, ancak maruz kaldıkları psikososyal riskler daha önce sistematik olarak araştırılmamıştır. Dolayısıyla, bu çalışma iş güvenliği uzmanları arasında psikososyal riskleri araştıran ilk çalışmadır.

### **Yöntem**

Veriler, iş güvenliği alanında çalışan 101 uzmandan toplanmıştır. Yaşları 21 ile 65 arasında değişmektedir (M=41,75, SD=9,64). Örneklem 65 erkek ve 36 kadın uzmandan oluşmaktadır. Bu 101 katılımcıdan 93'ü iş güvenliği uzmanı sertifikasına (48 A sınıfı, 29 B sınıfı ve 15 C sınıfı, biri eksik) ve 8'i Ulusal İş Sağlığı ve Güvenliği Sınav Kurulu (NEBOSH) Uluslararası Diploması gibi diğer sertifikalara sahiptir. Katılımcılar iş güvenliği alanında ortalama 10,45 yıldır aktıf olarak çalışmaktadırlar (SS=6,26). 32 katılımcı ortak sağlık ve güvenlik birimlerinde, 33'ü özel şirketlerde tam zamanlı, 20'si kamu şirketlerinde, biri bireysel olarak yarı zamanlı, ikisi dışarıdan danışmanlık şeklinde ve 12'si emekli olmasına rağmen aktıf olarak çalışmaktadır.

Bilgilendirilmiş onam, demografik sorular, yaşam kalitesi ölçümü ve NHUMAN PSR-Q'yu içeren anket bataryası Google Forms kullanılarak oluşturulmuştur. Veri toplama süreci 29 Kasım 2024'te başlamış ve 19 Ocak 2025'te sona ermiştir. Olası katılımcılara ulaşmak için kartopu ve elverişlilik örnekleme yöntemleri kullanılmıştır. Çevrimiçi anket bağlantısı doğrudan ulaşılabilen uzmanlarla ve sosyal medya kanallarında paylaşılmıştır.

## Bulgular

Varyans analizi kullanılarak erkek ve kadın uzmanların psikososyal risk düzeyleri ve yaşam kalitesi puanları karşılaştırılmıştır. Sonuçlara göre, psikososyal riskler ve yaşam kalitesi düzeylerinin 17 alanı açısından anlamlı grup farklılıkları gözlenmemiştir.

İkinci varyans analizinde, alanda 1-5 yıl, 6-10 yıl ve 11 veya daha fazla yıl süreyle aktif olarak çalışan uzmanlar karşılaştırılmıştır. Sonuçlara göre uzmanlar ekipman ( $F(2, 98) = 3.98, p < .05, \eta^2 = .08$ ) ve çalışma ortamı ( $F(2, 98) = 4.30, p < .05, \eta^2 = .08$ ) açısından anlamlı farklılıklar göstermiştir. Çoklu karşılaştırmalara göre, 1-5 (Ort. = 2.34, SS = 1.02) yıllık deneyime sahip uzmanlar, 11 veya daha fazla (Ort. = 1.74, SS = .62) yıllık deneyime sahip olanlara kıyasla ekipman konusunda daha yüksek seviyeler bildirmiştir. 6-10 (Ort. = 2.16, SS = .95) yıllık deneyime sahip olanlar ekipman açısından her iki gruptan farklılaşmamıştır. Benzer şekilde, 1-5 (Ort. = 2.58, SS = .95) yıllık deneyime sahip olanlara kıyasla çalışma ortamı konusunda daha yüksek düzeyler bildirmişlerdir. 6-10 (Ort. = 2.01, SS = .98) yıllık deneyime sahip olanlar, çalışma ortamı açısından her iki gruptan farklılaşmamıştır.

Üçüncü varyans analizinde iş güvenliği uzmanları belge sınıflarına göre karşılaştırılmıştır. Bulgulara göre uzmanlar çalışma programı açısından anlamlı grup farklılıkları göstermiştir ( $F(3, 96) = 3.53, p < .05, \eta^2 = .10$ ). B sınıfı uzmanların (Ort. = 2.45, SS = 1.19) A sınıfı uzmanlara (Ort. = 1.75, SS = .70) kıyasla çalışma programında daha yüksek puanlar bildirdiği bulunmuştur. C sınıfı uzmanlar (Ort. = 2.00, SS = .90) ve diğer uzmanlar (diğer sertifikalara sahip olanlar; Ort. = 2.00, SS = .91) hiçbir gruptan anlamlı şekilde farklılık göstermemiştir.

Dördüncü ve son varyans analizinde uzmanlar çalışma koşullarına göre karşılaştırılmıştır. Sonuçlar uzmanların çalışma programı ( $F(2, 91) = 3.80, p < .05, \eta^2 = .08$ ) ve yaşam kalitesi ( $F(2, 91) = 3.24, p < .05, \eta^2 = .07$ ) düzeylerine göre farklılık gösterdiğini ortaya koymuştur. Çoklu karşılaştırmalar, ortak sağlık ve güvenlik birimlerinde çalışanların (sırasıyla Ort. = 2.29, SS = 1.03; Ort. = 3.07, SS = .71) çalışma programında kamu kurumlarında çalışanlara (Ort. = 1.62, SS = .77)

göre daha yüksek puan aldığını ve yaşam kalitesinde özel şirketlerde tam zamanlı çalışanlara (Ort. = 3.43, SS = .53) göre daha düşük puan aldığını göstermiştir.

İş güvenliği uzmanlarında demografik değişkenler, psikososyal risk etmenleri ve yaşam kalitesi arasındaki iki değişkenli ilişkileri incelemek için Pearson korelasyon katsayıları hesaplanmıştır. Psikososyal risklerin 17 alanının tümünün iş güvenliği uzmanları arasında yaşam kalitesiyle negatif korelasyona sahip olduğu bulunmuştur. Pearson korelasyon katsayıları liderlik için -.25 (p < .05), taciz için -.24 (p < .05), saygı için -.22 (p < .05), kariyer gelişimi için -.27 (p < .01), kişilerarası ilişkiler için -.37 (p < .001), zorbalık için -.35 (p < .001), iş-yaşam dengesi için -.24 (p < .05), takdir için -.23 (p < .05), şiddet için -.30 (p < .01), destek için -.26 (p < .01), iş yükü için -.24 (p < .05), görev tasarımı için -.30 (p < .01), çalışma programı için -.32 (p < .01), organizasyonel değişim yönetimi için -.29 (p < .01), iş kontrolü için -.31 (p < .01), ekipman için -.36 (p < .001) ve çalışma ortamı için -.34 (p < .001) olarak bulunmuştur.

Psikososyal riskler ile yaşam kalitesi arasındaki ilişkiyi daha ayrıntılı incelemek için çoklu regresyon analizi yapılmıştır. Sonuçlara göre, modeller hem ilk  $(F(1,99)=15.31,p<.001,Adj.R^2=.13)$  hem de ikinci  $(F(2,98)=17.53,p<.001,Adj.R^2=.25)$  adımda anlamlı bulunmuştur. Aylık gelir ilk adımda yaşam kalitesiyle pozitif ilişkiliyken  $(\beta=.37,p<.001)$ , ikinci adımda hem aylık gelir hem de kişilerarası ilişkiler yaşam kalitesiyle ilişkili bulunmuştur (sırasıyla  $\beta=.36,p<.001$ );  $\beta=-.36,p<.001$ ). Kişilerarası ilişkilerdeki puan arttıkça, iş güvenliği uzmanlarının yasam kalitesi azalmaktadır.

## **Tartışma**

Bu çalışmada, iş güvenliği uzmanları arasında demografik değişkenler, psikososyal riskler ve yaşam kalitesi arasındaki ilişkiler incelenmiştir. Bu ilişkileri incelerken çeşitli grup karşılaştırmaları yapılmıştır. Bulgulara göre, iş güvenliği uzmanları psikososyal riskler ve yaşam kalitesi açısından cinsiyetlerine göre farklılık göstermemiştir. Cinsiyete ilişkin bulgulara benzer şekilde, sertifika sınıfına dayalı karşılaştırmalar tutarsız sonuçlar ortaya koymakta ve daha fazla araştırma gerektirmektedir.

Bu çalışma, en az deneyimli gruptaki uzmanların özellikle ekipman ve çalışma ortamıyla ilgili daha yüksek psikososyal riskler bildirdiğini bulmuştur. Bu, Cerev'in (2018) daha deneyimli uzmanların daha yüksek iş memnuniyetine sahip olduğu bulgusuyla uyumludur. Dahası, bu iki psikososyal risk alanının diğerleriyle birlikte yaşam kalitesiyle negatif korelasyonlu olduğu mevcut çalışma tarafından ortaya konulmuştur. Ekipman yetersizlikleri ve zorlu çalışma koşullarının daha az deneyimli uzmanlar arasında iş ve yaşam memnuniyeti önünde bir engel görevi

görmesi olasıdır. Bu değişkenler arasındaki olası nedensel ilişkileri keşfetmek için daha fazla çalışma yapılmalıdır.

Bulgular, ortak sağlık ve güvenlik birimlerinde çalışan uzmanların yoğun çalışma saatleri ve yaşam kalitesiyle ilişkili psikososyal riskler konusunda dezavantajlı bir konumda olduğunu göstermiştir. Bu bulgu, ortak birimlerde çalışan iş güvenliği uzmanları arasında aşırı çalışma saatleri ve yetersiz maaşlar bildiren önceki çalışmalarla tutarlıdır (Aca ve Göze, 2020; Başkan Takaoğlu vd., 2018; Karakuyu ve Erdoğan, 2017; Taşkıran, 2016). Özenir (2021), yoğun iş yükünün iş güvenliği uzmanları arasında işten ve meslekten ayrılma niyetinin artmasıyla ilişkili olduğunu ve bu ilişkiye duygusal tükenmişliğin aracılık ettiğini bildirmiştir. Bu bulgular bir bütün olarak yorumlandığında, özellikle ortak sağlık ve güvenlik birimlerinde çalışan uzmanlar arasında çalışma koşullarıyla ilişkili psikososyal risklerin belirlenmesinin önemi vurgulanmaktadır.

Bu çalışmanın önemli bulgularından biri, iş güvenliği uzmanları arasında psikososyal riskler ve yaşam kalitesi arasındaki tutarlı negatif ilişkilerdir. Aylık gelirin etkileri kontrol edildikten sonra, kişilerarası ilişkiler iş güvenliği uzmanları arasında yaşam kalitesinin en güçlü tek belirleyicisi olarak bulunmuştur. Benzer bir bulgu, Işık vd.'nin (2022b) çalışmasında da bildirilmiş olup, sosyal destek ve topluluk duygusuyla ilişkili psikososyal risklerin kömür madencileri arasında refahı olumsuz yönde tahmin ettiğini bildirmişlerdir. Zayıf kişilerarası ilişkiler ile zayıf yaşam kalitesi ve iş tatmini arasındaki ilişkiler, çeşitli mesleklerden örneklerin kullanıldığı uluslararası literatürde de bulgulanmıştır (Asante vd., 2019; Goetz vd., 2015; Lincke vd., 2021).

### **Declarations**

#### Declaration of Contribution of Researchers

The first author (GF) contributed 60% and the second author (MCO) contributed 40%.

#### Declaration on Conflict of Interest

The authors declare that there is no conflict of interest.

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