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# Differences in Risk Perception Between the Construction and Agriculture Sectors: An Exploratory Study with a Focus on Carcinogenic Risk

Massimiliano Barattucci[1], Tiziana Ramaci[2], Serena Matera[3], Francesca Vella[3], Valentino Gallina[4], Ermanno Vitale[5]

[1] Department of Human and Social Sciences, University of Bergamo, Bergamo, Italy
[2] Department of Educational Sciences, University of Catania, Catania, Italy
[3] Department of Clinical and Experimental Medicine, Occupational Medicine, University of Catania, Italy
[4] Department of Engineering and Architecture, University of Enna "Kore", Enna, Italy
[5] Department of Medicine and Surgery, University of Enna "Kore", Enna, Italy

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**Abstract**

**Background:** *Risk perception is crucial in occupational health and safety, particularly in high-risk sectors like agriculture and construction. This study investigates the influence of personality traits, emotional states, and sociodemographic variables on perceived risks, explicitly focusing on carcinogenic exposure. The aim is to identify key factors shaping risk perception to inform safety interventions.* **Methods:** *Using a correlational research design, 91 Italian workers (49 from construction and 42 from agriculture) completed a comprehensive questionnaire assessing personality (Big Five model), emotional state, self-perceived safety knowledge, and risk perception across 14 dimensions. Statistical analyses included correlations, ANOVA, and regression models to explore relationships between variables.* **Results:** *Openness, emotional stability, and extraversion were inversely related to perceived risk levels, while conscientiousness and agreeableness correlated positively. Workers in agriculture reported higher awareness of carcinogenic risks than construction workers, though no significant differences emerged in perceived risk levels. Negative emotional states predicted higher risk perception, while self-perceived safety knowledge had only minor correlations with specific risk dimensions. Gender, age, and service length did not significantly influence risk perception.* **Conclusion:** *Personality traits, particularly openness and emotional stability, strongly influence risk perception, highlighting the importance of considering individual psychological profiles in occupational safety interventions. Although emotional state plays a notable role, self-perceived safety knowledge showed limited impact, suggesting a need for targeted education.*

## 1. Introduction

Institutional and corporate attention to occupational health and safety has led to an impressive body of research on risk prevention. This attention has resulted in regulatory developments and various stakeholders' involvement in producing good practices in the field of occupational health and safety. Scientific research on this topic represents a multidisciplinary field in which technical approaches are mixed with health and psychological ones, primarily

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*Corresponding Author: Massimiliano Barattucci; E-mail: massimiliano.barattucci@unibg.it

when referring to the study of behaviors that may or may not expose individuals to different risks [1].

The term 'risk' represents the possibility of suffering harm linked to foreseeable circumstances; consequently, it is a variable related to the frequency (or probability) of the occurrence of damage and the magnitude of said harm to the individual [2]. While risk is commonly defined through quantitative models, its interpretation in everyday contexts is inherently subjective and influenced by human behavior. Several factors are indicated in the literature as influencing risk perception: socio-demographic factors, such as gender, age, length of service, and education; risk competence factors, such as the degree of experience with risk exposure, knowledge of individual risks or regulations, and whether or not one is an expert in risk management and assessment processes; and organizational-contextual factors, including trust in the safety management system, perceived working conditions, and the presence of a safety-oriented organizational culture, all of which can enhance or reduce one's risk perception and competence [3]. In addition to these factors, it is widely known that the so-called human factors (which include both cognitive factors, such as biases, and personality factors) play a role in risky behaviors and accidents at work; several studies have focused on the possible predictive role of some personality traits in environmental and risk perceptions [4, 5].

A thorough understanding and awareness of health risks can lead to safer behaviors: effective risk perception significantly impacts them and ultimately enhances the safety and health of the community [6, 7].

The perception of the individual risk appears to be determined by a complex set of cognitive and psychological factors: the perceived possibility of harm to health, the subjective importance of the harm being more or less possible, and the personal uncertainty associated with exposure to a specific risk factor [8, 9, 10]. Research investigating the role of individual and cognitive factors in risk perception has found that factors such as the degree of emotional involvement in the perceived consequences of different risks or specific personality dimensions which determine emotional and behavioral attitudes influence various aspects of risk perception [1, 11, 12]. Among the approaches most frequently used in analyzing the psychological processes involved in risk perception is undoubtedly the so-called psychometric paradigm [12]. This paradigm has helped to identify differences and similarities between workers concerning personal risk dispositions and highlights how the concept of risk can take on different meanings for different subjects [13].

Some research has focused more specifically on subjective variations in risk perception due to personality structure using the so-called Big Five model [14], which identifies five major factors, each of which can aggregate several characteristics. Moreover, emotional factors such as fear, for example, tend to amplify the assessment of the consequences of risky events. At the same time, anger can significantly reduce risk perception, leading to errors and altered perceptions of evaluating risks and hazards [11, 12]. An analysis of the literature seems to highlight, in the perception of different types of risk, the clear role of circumstantial emotional states, such as anxiety and fear [15, 16].

The literature indicates a combined influence of personality, emotional factors, and knowledge or experience with specific risks in risk perception [17]. A correlational research was conducted involving workers who completed a questionnaire assessing their personality, emotional state, knowledge of safety regulations, socio-demographic factors, the size and level of perceived risk, and job satisfaction to investigate the relationships among these factors. As is well-known, many workers in agriculture and construction may be exposed to carcinogens used for various purposes. In agriculture, for example, workers are frequently exposed to pesticides, herbicides, and ultraviolet radiation, factors that increase the risk of developing different types of cancer. Epidemiological studies have shown farmers have an elevated risk of non-Hodgkin's lymphomas, multiple myelomas, and skin melanomas [18]. Exposure to specific herbicides such as 2,4-D has been linked to an increased risk of gastric cancer and haematological cancers [19].

Workers are often exposed to carcinogens such as silica and asbestos during demolition and remediation activities in construction. Several authors [20, 21] indicated an increased risk of lung cancer

among these workers. Other types of cancer, such as laryngeal and bladder cancers, are also more prevalent among construction workers exposed to industrial dust [22]. The research involved data collection from workers in the agricultural and construction sectors, focusing on carcinogenic risk and aiming to compare these relationships across two work sectors. The study considered personality, emotional state, socio-demographic factors, and self-perceived knowledge of safety regulations as independent variables. At the same time, the size and level of perceived risk and job satisfaction were treated as dependent variables.

There are few indications in the literature on the relationship between personality characteristics (capable of determining emotional and behavioural attitudes) and risk perception. The studies that have focused on the topic have provided results that are not always appreciable regarding the relationship between personality and risk perception [9, 16]. What is clear is that extraversion and openness have a positive relationship with risk-taking propensity [23, 24] and an inverse relationship with perceptions of the level of risk. Conversely, agreeableness, conscientiousness, and emotional stability predict perceived risk levels [25, 26].

A study on a sample of Italian workers in the transport sector confirmed part of the evidence regarding the relationships between personality and levels/dimensions of risk [27, 28]. Friendliness, emotional stability, and openness were the personality factors most sensitive to the different dimensions and levels of risk [28]. Based on the literature mentioned above, this research aimed to test the following hypothesis:

- H1: There is a relationship between personality factors and risk perception. Specifically, it is hypothesised that people with higher levels of extraversion tend to perceive lower levels of risk and danger (H1a), more friendly people tend to perceive higher levels of risk and danger (H1b), more conscientious people tend to perceive higher levels of risk and danger (H1c), people who are more emotionally stable tend to perceive higher levels of risk and danger (H1d), and people with higher levels of openness tend to perceive lower levels of risk and danger (H1e). An analysis of the literature indicates a relationship between socio-demographic variables and risk perceptions; habit, older age, and longer service lead to a presumption of control over risk [1,9,27]. Previous research with an Italian sample found age and length of service weakly predictive of risk levels but negatively correlated with multiple risk dimensions. Relying on this rationale, we hypothesised:
- H2: There is a relationship between socio-demographic variables and risk perception. As age (H2a) and length of service (H2b) increase, risk aspects will be perceived as less dangerous. Furthermore, we hypothesise that women will perceive higher risk levels than men (H2c). Studies have highlighted risk competence factors, including expertise and knowledge of individual risks and safety regulations [10,13]. In Italian workers, these indications were unequivocal [28]. Based on the literature, this research aimed to test:
- H3: There is an inverse relationship between self-perceived knowledge of safety regulations and risk perception. Additional evidence shows that emotions affect the processing of health risk information [15, 16]. As demonstrated in contexts like health care, negative and positive emotions may play different roles in risky behaviors around health. Hence, we hypothesized:
- H4: There is a relationship between emotional state (inverse for positive and direct for negative states) and perceived risk. This study aimed to examine the relationships between personality traits and perceived risk dimensions using a correlational research design among Italian workers in the construction and agriculture sectors, specifically addressing carcinogenic risk, which is an "invisible" risk often underestimated due to the lack of immediate health effects [7-9]. Research into the connection between personality, emotional state, and risk perception is

a significant area of interest for the practical implications it can foster regarding occupational safety and the prevention of workers' risk behaviors [16, 23, 29].

## 2. Methods

### 2.1. Study Design

The study was conducted in November 2023. As part of an occupational safety training intervention aimed at workers and employers in the construction and agriculture sectors operating in the province of Enna, the participants (N = 118) were voluntarily asked to complete a questionnaire regarding their perception of carcinogenic risk. Simultaneously, the participants were requested to sign the informed consent for data processing and were told that completing the questionnaire was completely anonymous.

### 2.2. Data Analysis

The research design was correlational. IBM SPSS 29.0 was used for data analysis. A correlational study was conducted between the risk perception and personality variables; thereafter, a multiple regression analysis was performed, considering personality dimensions (extraversion, agreeableness, conscientiousness, emotional stability, and openness), socio-demographic factors, and perceived knowledge of safety regulations as independent variables. In contrast, the 14 risk perception dimensions, level of perceived risk, and job satisfaction served as dependent variables. ANOVA and t-tests for independent samples were used to analyse group differences.

### 2.3. Measures

The questionnaire was prepared in Italian, available to all participants, and distributed by a workplace safety physician before training. It consists of three pages and can be completed in under seven minutes. It covers socio-demographic characteristics through nine questions addressing age, gender, marital status, number of children, educational qualification, nationality, length of service in current employment, total employment length, and job role.

A validated questionnaire [30] measuring occupational risk perception, based on the semantic differential model, assesses 14 bipolar dimensions on a 7-point Likert scale, such as: 1) Assumed voluntarily vs. assumed involuntarily; 2) Immediate vs. deferred health effects; 3) Known risk vs. unknown risk by workers; 4) Known risk vs. unknown risk by science; 5) Controllable vs. uncontrollable harmful effects; 6) New vs. familiar risks; 7) Chronic vs. catastrophic risks; 8) Common vs. terrifying risks; 9) Non-fatal vs. fatal consequences; 10) Absence vs. presence of risk for future generations; 11) Controlled vs. uncontrolled severity of the risk; 12) Observable vs. unobservable harm; 13) Not exposed vs. exposed; 14) Few vs. many exposed to the risk. An item from the perceived workplace risk scale asked participants to identify occupational risk factors in their jobs (e.g., physical, chemical).

A 5-point Likert scale item gauged perceived risk level in their job (1 = low risk, 5 = high risk) [28]. Self-perceived knowledge of safety legislation was assessed using a 4-item scale (e.g., knowledge of the Occupational Health and Safety Act), employing a 5-point Likert scale (1 = poor knowledge, 5 = excellent knowledge; Cronbach's alpha = .86) [28]. Personality was measured using the Big Five Inventory—Italian Short Version (BFI-10) [31], consisting of 10 items rated 1 (completely disagree) to 5 (fully agree). The BFI-10 dimensions were agreeableness (AGR), conscientiousness (COS), emotional stability (EMS), extroversion (EXT), and openness (OPEN). An item example is "Tends to find fault with others and does a thorough job." The emotional state was captured using the Italian short version of the Positive and Negative Affect Schedule [32], a 10-item self-reported questionnaire using a 5-point Likert scale, assessing positive (Cronbach's alpha = 0.81) and negative (Cronbach's alpha = 0.93) effects. Job satisfaction was gauged using a 3-item scale (e.g., 'How satisfied are you with your working life?") on a 5-point Likert scale (1 = totally dissatisfied, 5 = totally satisfied; Cronbach's alpha = .92) [33].

## 3. Results

Out of 118 individuals who participated in the training intervention, 91 (77%) participated in the study and completed the survey instrument accurately. All participants were Italian. Of these, 49 worked in the construction sector (response rate = 74%; 46.2% of respondents), while 42 were employed in agriculture (response rate = 81%; 53.8%). The respondents had an average age of 45.9 years (*SD* = 11.2) and an average length of service of 11.92 years (*SD* = 7.19). Understandably, given the working sectors, the sample was unbalanced in terms of gender, with 61 men (67%) and 30 women (33%). Tables 1 and S1 summarise the socio-demographic characteristics of the sample across different sectors and the composition by role, respectively. Regarding marital status, 29 subjects (31.9%) were single, 55 were married (60.4%), and seven were in another situation (7.7%; divorced, widowed, etc.). In terms of educational qualifications, 44 had a high school diploma (48.4%), 7 had a university degree (7.7%), and 40 had a middle school diploma (43.9%). All operators received training as mandated by Article 37 of Legislative Decree 81/08.

Table S2 describes the differences between sectors concerning the declared basic knowledge of occupational safety and risks. In both sub-samples, most workers (more than two-thirds) declared having a basic understanding of occupational safety. At the same time, the use of personal protective equipment (PPE) appeared to be lower in both sectors.

Table S3 shows the differences between sectors for the perceived presence of specific risks. Workers in agriculture perceived themselves to be exposed mainly to physical risks, while those in construction perceived chemical risks; however, it should be emphasised that the differences were not statistically significant.

Concerning the risk from exposure to carcinogens and mutagens as defined by Italian Legislation (Legislative Decree 81/08), in the two groups examined, to the specific question, the frequency analysis showed that a higher percentage of workers in the agriculture sector, compared to those in the construction sector, had a high perception of this type of risk (Table S4). However, ANOVA and Student's *t*-test showed no significant differences between industries in the perceived level of risk from exposure to carcinogens and mutagens.

Openness and agreeableness were the personality traits that correlated most strongly with the different risk dimensions. Several risk dimensions – voluntariness of risk, control of risk, severity of consequences, observability of harm, and personal exposure to risk – were significantly correlated with at least three personality traits (see Table 2).

The multiple regression analysis showed that personal exposure, terrifying risk, and risk control were the risk dimensions most strongly predicted by personality traits and by openness, extraversion, and emotional stability (see Table 3).

Friendliness and emotional stability were also the most predictive personality traits of perceived risk level (Table 4). Table 4 compares multiple regression data from the current sample (sectors aggregated) with a previous study in the transportation sector [28].

The analyses showed no gender differences in perceived risk levels (via Student's *t*-test) nor significant correlations between perceived risk and age or length of service (data not shown).

Table S5 shows significant correlations between safety knowledge and risk dimension and level. However, the self-perceived understanding of safety at work only had substantial relationships with some risk dimensions.

Table S6 shows the correlations of positive and negative affectivity with outcomes (satisfaction and perceived risk level). The level of risk from exposure was significantly correlated with negative affectivity.

**Table 1.** Description of the sample and sub-samples by gender, age, and length of service.

| | Gender (*f*, %) | | Age | Length of service |
|---|---|---|---|---|
| | **Male** | **Female** | **M, SD** | **M, SD** |
| Agriculture | 25 (59.2%) | 17 (40.5%) | 46 (11.6) | 13.8 (7.2) |
| Construction | 36 (73.5%) | 13 (26.5%) | 45.7 (10.9) | 10.3 (6.8) |
| Total | 61 (67%) | 30 (33%) | 45.9 (11.2) | 11.9 (7.2) |

**Table 2.** Correlations between risk dimensions and personality traits in the total sample of workers.

| | Personality – Big Five | | | | |
|---|---|---|---|---|---|
| **Risk Dimension** | **Extraversion** | **Agreeableness** | **Consciousness** | **Emotional Stability** | **Openness** |
| Voluntariness of risk | .061 | .141 | .298** | .248* | .249* |
| Immediacy of damage | -.041 | .012 | .059 | .247* | .304** |
| Personal knowledge of risk | -.036 | .129 | -.007 | .306** | -.319** |
| Science's knowledge of risk | .222* | .227* | -.103 | .011 | -.109 |
| Risk Control | -.039 | -.372*** | -.300** | .072 | -.272** |
| Risk knowledge | .171 | -.115 | .127 | .024 | -.033 |
| Pervasiveness of the damage | -.033 | .091 | -.167 | .076 | -.329*** |
| Common risk | .038 | -.249* | -.133 | -.319** | -.348** |
| Severity of consequences | .182 | .020 | -.355*** | -.272** | -.353*** |
| Threat to future generations | .176 | .153 | -.267* | .097 | -.374*** |
| Controllability of risk severity | -.227* | -.015 | .016 | .025 | -.221* |
| Observability of damage | -.213* | -.216* | .001 | -.265* | -.430*** |
| Personal exposure to risk | -.084 | -.324** | -.174 | .219* | -.335** |
| Collective risk exposure | .066 | .143 | -.016 | .132 | -.101 |

*$p < .05$; **$p < .01$; ***$p < .001$.

**Table 3.** Multiple regression of personality traits (predictor) on different risk dimensions.

| **Risk** | **Extraversion** | | **Agreeableness** | | **Consciousness** | | **Emotional Stability** | | **Openness** | | **Adj.** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dimensions** | **β** | ***t*** | **β** | ***t*** | **β** | ***T*** | **β** | ***t*** | **β** | ***t*** | $R^2$ |
| Voluntariness | .013 | .22 | .01 | .19 | -.06 | -.57 | -.273 | -2.3* | .178 | 1.7 | .08 |
| Immediacy | -.18 | -1.59 | -.036 | -.14 | .048 | .36 | -.06 | -.58 | .341 | 3.1** | .14 |
| Risk Control | .308 | 3.2** | -.16 | -1.2 | .167 | 1.21 | .024 | .143 | -2.96 | -3.01** | .21 |
| Terrifying risk | .341 | 3.7*** | .052 | .51 | -.015 | -.16 | .208 | -2.0* | -.331 | -3.5*** | .26 |
| Severity | .211 | 2.6* | .114 | 1.1 | -.005 | -.05 | .241 | 2.7* | -.298 | -3.1* | .20 |
| Observability | .266 | 2.8* | -.043 | -.37 | .048 | -.48 | .015 | .162 | -.423 | -4.4*** | .25 |
| Personal Exhibition | .251 | 2.7* | .005 | .03 | -.38 | -3.9*** | -.246 | -2.5* | -.32 | -3.9*** | .31 |

*$p < .05$; **$p < .01$; ***$p < .001$.

Negative affectivity predicted the level of risk (adjusted $R^2 = .094$; $F(1, 90) = 9.24$, $p < .003$; Beta = .303; $t = 3.041$, $p < .003$).

## 4. DISCUSSION

The role of human factors in behaviours and risk perceptions at work appears indisputable, but the exact influence of personality remains unconfirmed [34]. This research investigated the effects of personality and other variables, such as emotional state, knowledge of safety legislation, and socio-demographic factors, to explore and compare risk perceptions among workers from different sectors.

First, the direction of the relationship between personality traits and risk level [27] was generally confirmed across all dimensions [H1]: extraversion and openness showed an inverse relationship with

**Table 4.** Personality traits (predictors) on perceived risk level.

| | Perceived Risk (Agriculture/ Construction) | | Perceived Risk (Transport) | |
|---|---|---|---|---|
| **Personality** | **β** | ***T*** | **β** | ***t*** |
| Extraversion | -.087 | -.91 | -.098 | -.94 |
| Agreeableness | .216 | 2.48* | .199 | 1.39* |
| Conscientiousness | .148 | 1.26 | .118 | 1.04 |
| Emotional stability | -.227 | -2.76* | -.432 | -.3.27* |
| Openness | -.175 | -1.77 | -.338 | -2.81* |
| $R^2$ | .097 | | .221* | |

*$p < .05$.

perceived risk levels, whereas conscientiousness, agreeableness, and emotional stability positively correlated with perceived risk. While the outcomes aligned with findings in the Italian transport sector [28], the correlation values were moderate. Among all personality traits, openness, extraversion, and emotional stability significantly predicted several critical risk dimensions, including risk control, observability, severity, and terrifying risk.

Contrary to other studies and H2[5, 35], including the Italian sample [28], no socio-demographic factors were significantly related to the size and levels of risk. However, these results may have been influenced by the small sample size. Self-perceived knowledge of safety legislation exhibited a significant but minimal correlation with risk levels and only for some specific risk dimensions [H3]. The role of this factor requires confirmation in future studies. Notable insights emerged regarding the impact of emotional state on risk perception [H4]; despite few significant relationships with risk dimensions, negative affectivity was identified as a strong predictor of risk level.

Risk perception among these workers may be skewed. Many farmers, particularly migrant and seasonal workers, often neglect necessary preventive measures while acknowledging the risks associated with pesticide exposure. Socioeconomic barriers, such as fear of job loss and lack of access to accurate information, hinder them from demanding adequate protection [19, 36]. Additionally, education levels regarding occupational health and safety are frequently insufficient, heightening the vulnerability of these worker groups. Numerous initiatives have been implemented in the construction sector to mitigate carcinogenic exposure, including the ban on asbestos use. Equally significant is the collaboration between public and private health companies and the Labour Inspectorate, which has been conducted through training events and inspections related to PPE usage [22].

The interpretation of the research results must consider the study's exploratory nature and other limitations, such as low sample size and convenience sampling. The findings need to be validated in larger samples. Future research should corroborate this data and develop new research designs (longitudinal, experimental, etc.) that could provide more empirical insights into the roles of personality and human factors in risk perception, as well as indications of causal relationships among factors.

## 5. Conclusion

Workers in the agricultural and construction sectors face numerous risks, including exposure to carcinogens and mutagens that may increase their cancer risk. However, the perception of these risks and the preventive measures adopted can vary significantly and may be influenced by socioeconomic, personal, and informational factors. Although the role of these factors in shaping workplace risk behaviours is well established, current findings do not fully confirm the nature of the relationships between personality traits and other human factors that affect risk perception. Furthermore, the impact of socio-demographic factors appears to be diminished, while research results indicate that knowledge of legislation and emotional states play a role in shaping risk perception. Future research will need to verify these findings to provide additional insights into how accurate perceptions can foster preventive behaviours and improve the effectiveness of safety measures. [37, 38].

**Supplementary Material:** Six additional tables are provided in the Appendix section of this article as Supplmentary. material (description of sample and sub-samples, knowledge of safety at work and presence of specific risks, correlations between different variables).

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**Institutional Review Board Statement:** The study was conducted according to the Declaration of Helsinki guidelines and the APA ethical principles of research. The ethical committee of Ecampus University approved the study in December 2020 [Protocol 03/2020].

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Declaration of Interest:** The authors declare no conflict of interest.

**Author Contribution Statement:** M.B., T.R., and E.V.: conceptualization, methodology, data curation; M.B and T.R.: formal analysis; M.B. F.V. and E.V.: writing original draft, project administration; S.M, F.V, V.G., and E.V.: writing review and editing.

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# APPENDIX

## SUPPLEMENTARY MATERIAL

**Table S1.** Description of sample and sub-samples by role (n, %).

| | Sector | | |
|---|---|---|---|
| **Role** | **Agriculture** | **Construction** | **Total** |
| Owner | 21 (50%) | 29 (59%) | 50 (54.9%) |
| Employee | 17 (40.5%) | 9 (18.3%) | 26 (28.6%) |
| Technician | 4 (9.5%%) | 11 (22.5%) | 15 (16.5%) |

**Table S2.** Basic knowledge of safety at work.

| | Agriculture, *f* (%) | | Construction, *f* (%) | |
|---|---|---|---|---|
| | **Yes** | **No** | **Yes** | **No** |
| Have you ever heard of Law 81/2008? | 31(74%) | 11 (26%) | 44 (89%) | 4 (11%) |
| Do you know what Law Decree 81/2008 is about? | 27 (64%) | 15 (36%) | 37 (75%) | 12 (25%) |
| Do you know what a prevention and protection service is? | 37 (88%) | 5 (12%) | 43 (87%) | 6 (13%) |
| Do you regularly use PPE? | 4 (9.5%) | 38 (90.5%) | 2 (4%) | 47 (96%) |
| Do you think your job is at risk? | 31 (74%) | 11 (26%) | 41 (83%) | 8 (17%) |

**Table S3.** Presence of specific risks in different sectors (f, %).

| | Sector | | |
|---|---|---|---|
| **Type of Risk** | **Agriculture** | **Construction** | **Total** |
| Physical | 25 (59%) | 21 (43%) | 46 (50%) |
| Traumatic | 20 (47%) | 21 (43%) | 41 (45%) |
| Chemical | 19 (45%) | 25 (51%) | 44 (48%) |
| Biohazard | 13 (31%) | 9 (18%) | 22 (24%) |
| Psychological | 2 (5%) | 2 (4%) | 4 (4%) |
| Relational | 2 (5%) | 1 (2%) | 3 (3%) |
| Organisational | 3 (7%) | 4 (8%) | 7 (7%) |
| Others | 3 (7%) | 4 (8%) | 7 (7%) |

**Table S4.** Level of perceived risk from exposure to carcinogens and mutagens in the area (f, %).

| | Health Risk Level | | |
|---|---|---|---|
| **Sector** | **Low** | **Medium** | **High** |
| Agriculture | 4 (9.5%) | 29 (69%) | 9 (21.4%) |
| Construction | 3 (6.1%) | 41 (83.7%) | 5 (10.2%) |
| Total | 7 (7.6%) | 70 (77.1%) | 14 (15.3%) |

**Table S5.** Correlations between safety knowledge, risk dimensions, and risk level.

| | Safety Knowledge |
|---|---|
| Risk level | .272* |
| Immediacy of risk | .244* |
| Science knowledge | .241* |
| Common risk | -.258* |
| Personal exposure | -.299** |

** = p < .05; ** = p < .01.*

**Table S6.** Correlations between emotional state, satisfaction, and perceived risk level.

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Level of risk | - | | | |
| 2. Satisfaction | -.246* | - | | |
| 3. + Affectivity | -.195 | .375*** | - | |
| 4. – Affectivity | .307** | -.237* | -.379*** | - |

** = p < .05; ** = p < .01; *** = p < .001.*