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Research Article

The Role of Earthquake Risk Perception in the Relationship between Post-Earthquake Stress and Employee Performance in Türkiye

Türkiye'de Deprem Sonrası Stres ve İşgören Performansı İlişkisinde Deprem Risk Algısının Rolü

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ABSTRACT

Two consecutive earthquakes in Kahramanmaraş have significantly impacted life and business in Türkiye at 2023. It is thought that risk perception, which is expressed as the perceived probabilities of the consequences of the earthquake hazard and the perceived intensity of the effects of this hazard, plays a role in this impact. This study examines the mediating role of earthquake risk perception in the relationship between post-earthquake stress and employee performance. The study was conducted among 1780 employees in Ankara, Türkiye in March-April 2023, one month after the earthquakes in the Kahramanmaraş region. The study found a negative relationship between perceived stress and employee performance, a positive relationship between perceived stress and earthquake risk perception, and a negative relationship between earthquake risk perception and employee performance. Earthquake risk perception mediates the stress-performance relationship. Research on earthquake risk can help organizations in earthquake-prone regions in strategic planning, disaster preparedness, and stress management, and can positively affect employee performance.

MAKALE BİLGİSİ

Anahtar Kelimeler:
Deprem Risk Algısı,
Algılanan Stres,
Çalışan Performansı,
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ÖZ

Kahramanmaraş'ta 2023 yılında art arda meydana gelen iki deprem, Türkiye'de yaşamı ve iş dünyasını önemli ölçüde etkilemiştir. Bu etkilenmede deprem tehlikesinin sonuçlarına yönelik algılanan olasılıklar ve bu tehlikenin etkilerini algılanma şiddeti olarak ifade edilen risk algısının rolünün olduğu düşünülmektedir. Bu çalışma, deprem sonrası stres ve çalışan performansı arasındaki ilişkide deprem risk algısının aracılık rolünü incelemektedir. Araştırma, Türkiye'de Mart-Nisan 2023 döneminde, Kahramanmaraş bölgesinde yaşanan depremlerden bir ay sonra Ankara'da 1780 çalışan üzerinde gerçekleştirilmiştir. Çalışmada, algılanan stres ile çalışan performansı arasında negatif, algılanan stres ile deprem risk algısı arasında pozitif ve deprem risk algısı ile çalışan performansı arasında negatif bir ilişki bulunmuştur. Deprem risk algısı, stres-performans ilişkisine aracılık etmektedir. Deprem riskine ilişkin araştırmalar, deprem riski taşıyan bölgelerdeki kuruluşlara stratejik planlama, afete hazırlık ve stres yönetimi konularında yardımcı olabilir ve çalışan performansını olumlu yönde etkileyebilir.

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1. INTRODUCTION

Earthquakes are natural disasters. Depending on their severity, they can seriously disrupt people's comfort and daily functioning. The response of a person when the balance of comfort is disturbed is defined as stress (Selye, 1956). Earthquakes, with their sudden and destructive nature, are an important source of stress by creating a sense of uncertainty and danger, which may result in significant psychological consequences.

Stress occurs when the homeodynamic balance of the organism is threatened. The term "homeodynamics" refers to the organism's ability to maintain stability in its internal environment (Zuanon, Ferreira & Monteiro, 2023 When this balance is disrupted, stress is an adaptive physiological response, coordinated by neuroendocrine systems, that aims to restore equilibrium and is accompanied by cognitive and emotional reactions (Selye, 1956). The sudden and violent nature of earthquakes complicates this process by increasing the perception of uncertainty and danger.

The source of stress may be internal or external, real or perceived. In any case, the organism reacts to stress to maintain its homeodynamic balance. This response varies according to the duration and context of the reaction to the stressor (Agorastos & Chrousos, 2022). Risk, on the other hand, is a situation that arises from the assessment of threats and uncertainties and often requires risk management processes. Risk perception determines how individuals interpret threats and shape their responses (Sjöberg, Moen & Rundmo, 2004). This perception is influenced by many factors such as education level, past experiences, cultural norms, and social environment (Bodemer & Gaissmaier, 2015).

Earthquake risk perception allows us to understand and analyze how people behave during actual or potential disaster experiences (Aksa, Utaya, Bachri & Handoyo, 2020). Natural disasters such as earthquakes are important events that directly affect risk perception and awareness. Increased awareness of these risks, which directly affect people's lives, is an expected outcome of natural disasters. This awareness enables both individuals and societies to be better prepared for disasters and increases their capacity to cope with such events.

On 6 February 2023, two earthquakes occurred in quick succession, the first with a magnitude of 7.7 and the second with a magnitude of 7.6, both centred in Kahramanmaraş. These earthquakes caused widespread destruction throughout the country and severely disrupted daily life in many areas. This unexpected natural disaster also had a negative impact on people's working lives. The trauma seriously shook the psychological state, motivation and work performance of working people. This study was designed to examine the psychological impact of the earthquake on the work performance of the working population in a short period of time (one month). The study examines the mediating role of earthquake risk perception in the effect of perceived post-earthquake stress on employee performance. The study will analyse employees' post-earthquake stress levels, the reflection of this stress on their job performance, and the effect of earthquake risk perception on this process. This research will provide important insightsto understand the psychological and performance responses of employees in similar disaster situations and to develop effective intervention strategies. It also aims to provide guidance to employers and policy-makers on post-disaster employee support and recovery processes.

2. CONCEPTUAL FRAMEWORK AND HYPOTHESES

Stress is a widespread and costly problem in modern society, particularly in the workplace, and is becoming an increasingly serious public health issue due to its negative effects on both physiological and mental health (Lee, Joo & Choi, 2013). Perceived stress in the workplace can lead to work-related problems such as job dissatisfaction, burnout, and turnover, as well as individual problems such as anxiety, depression, and physical illness (Tetrick & LaRocco, 1987). In particular, the belief that the individual does not have sufficient resources to cope with stress increases the perception of stress and exacerbates its negative effects (Lazarus & Folkman, 1984).

Increased stress perception negatively affects an individual's physiological and psychological health and significantly reduces his or her performance at work (Smith, 2001). These effects significantly reduce an individual's ability to perform effectively at work. In addition, high levels of perceived stress hurt attention, concentration, and decision-making (Miranda et al., 2020). It is expected that this will lead to a decrease in the quality of work.

The intensity of perceived stress will cause employees to disengage from social relationships at work, and individuals will be less likely to form new communication ties (Kalish, Luria, Toker & Westman, 2015). Employees who experience negative relationships with their coworkers and managers will weaken their cooperation and teamwork skills, and their performance will be negatively affected. Employees with high stress

perceptions are more likely to be unhealthy, less motivated, less productive, and less safe at work (Park, 2007). Based on these assumptions, we propose the following hypothesis:

H_1: Perceived stress has a negative effect on employee performance.

Specifically, high levels of perceived stress can make individuals more sensitive to potential risks and more likely to emphasize such threats (Ionescu, Iacob, Avram & Armaş, 2021). Therefore, stressed individuals are likely to perceive environmental risks, such as earthquakes, as more serious and more likely to occur. It is also noted that risk perception is not an objective judgment about hazards and can vary depending on the situations people face and individual characteristics (López-Vázquez & Marvan, 2003). Perception is a biological and cognitive function in general (López-Vazquez, 2001). To mitigate the effects of earthquakes, how people perceive and interpret earthquake risk is important (Mızrak, Özdemir & Aslan, 2021). Although people cannot predict how the earthquake will occur, they will try to find appropriate ways, both physically and mentally, to prevent and minimize the threat and the resulting damage (Kung & Chen, 2012). High levels of perceived stress increase an individual's sensitivity to potential risks (Zvolensky et al., 2002). Controllable risks are generally perceived as less threatening. However, the perception of danger created by fear and the unknown significantly increases perceived risk (Raaijmakers, Krywkow & van der Veen, 2008). Uncontrollable and unpredictable events, such as earthquakes increase individuals' fear of the unknown. This fear increases stress levels, which further exacerbates earthquake risk perception.

The three main indicators of risk perception are awareness, concern, and preparedness (Raaijmakers et al., 2008). High levels of stress can increase an individual's awareness (Price, Tenan, Head, Maslin & LaFiandra, 2016). This heightened awareness can lead people to appraise potential threats as more serious. Anxiety, as a component of stress, contributes to individuals' more intense perception of earthquake risk (Ao et al., 2021). As anxiety increases, so does the perception of earthquake risk. Individuals who are not adequately prepared find events such as earthquakes to be more threatening, which increases perceived stress and risk (Paton, Anderson, Becker & Petersen, 2015).

Within a cognitive appraisal perspective, perceived stress heightens threat evaluation and narrows coping options, which shapes earthquake risk perception. Prior findings that stress increases risk sensitivity, that anxiety amplifies hazard salience, and that low preparedness elevates perceived threat support this mechanism (Zvolensky et al., 2002, Raaijmakers et al., 2008, Ao et al., 2021, Paton et al., 2015). Grounded in this theoretical and empirical rationale, we propose the following hypothesis:

H_2: Perceived stress has a positive effect on earthquake risk perception.

The mental health of employees who experience anxiety and stress will be negatively affected (Nieuwenhuijsen, de Boer, Verbeek, Blonk & van Dijk, 2003). Earthquake risk perception can be an important source of stress (Xu, Dai, Rao & Xie, 2016). The stress caused by this situation can negatively affect the mental health of employees and lead to cognitive dysfunction, such as distraction and decision-making difficulties (Pinheiro, Ivandic & Razzouk, 2017). At the same time, the perception of high risk can cause employees to feel insecure at work (Cheng, Ye & Liang, 2022). This sense of insecurity can reduce overall job satisfaction and lead to demotivation (Falco, Girardi, Dal Corso, Yıldırım & Converso, 2021; Omidi, Karimi, Pilbeam, Mousavi & Moradi, 2023). Employees with high perceptions of earthquake risk may also be more likely to stay away from the workplace. This can increase absenteeism and reduce overall work productivity (Byron & Peterson, 2002). At the same time, stressed employees may have difficulty concentrating on their work, which can lead to reduced work productivity and increased error rates (Blaug, Kenyon & Lekhi, 2007). For all these reasons, the perception of high earthquake risk will cause employees to work in a state of constant anxiety and uncertainty, which will reduce their performance and overall productivity at work. Based on the above arguments, we propose the following hypothesis:

H_3: Earthquake risk perception negatively affects employee performance.

The current study theorizes that earthquake risk perception mediates the link between perceived stress and job performance. The relationship between perceived stress and earthquake risk perception is important for understanding how individuals perceive and respond to environmental threats (Scolobig, De Marchi & Borga, 2012). Higher perceived stress can heighten earthquake risk perception, which may tax attention, decision making, and resource allocation, leading to lower job performance (Dahal, Kumar & Thapa, 2018; Babu & Balamurugan, 2022). In this framework, perceived stress influences performance partly through earthquake risk perception, which aligns with a

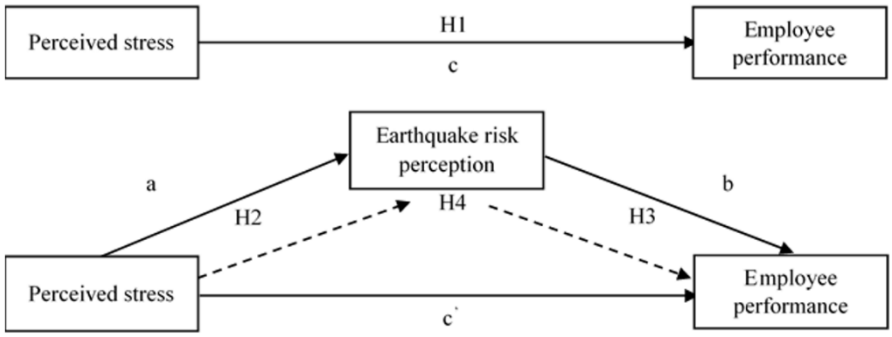


Figure 1: Research Model

mediation logic rather than a bidirectional loop (Sert, Gulbahar Eren, Koc & Yurumez, 2023). The sense of insecurity associated with heightened risk perception can erode the work environment and reduce productivity.

H_4: Earthquake risk perception plays a mediating role in the effect of perceived stress on employee performance.

3. METHODS

3.1. Design and Hypotheses

The research model, based on the purpose of the study, is presented in Figure 1.

3.2. Sample and Setting

This study was conducted with a cross-sectional design in Ankara province one month after two consecutive earthquakes in Kahramanmaraş in March-April 2023.

The participants of the study were selected from the working population over 18 years of age. The sample calculation of the research was done using the G*Power 3.1 package program. Based on the Employee Performance Scale score used in Çöl (2008) study, the effect size was specified as Cohen's f^2=0.08, approximated from variance explained estimates in that study, and it was determined that the sample size should be at least 1771 people with α=0.05 and power=0.95. Data were collected from the participants through printed questionnaires based on accessibility.

Data collection began one month after the earthquake and was completed within ten days (March 6-16, 2023). Sixty students served as surveyors in addition to six researchers. Data collection was planned and conducted on the main streets of the neighborhoods during the lunch breaks of the working population. Surveyors were strategically placed in busy business centers and commercial districts to ensure access to the working population. A total of 1780 respondents completed the questionnaire. The collected data were cleaned and analyzed. Analyses focused on perceived post-earthquake stress, earthquake risk perception, and employee performance in line with the study hypotheses.

For the questionnaire used as a data collection tool in this study, permission was obtained from xx University Ethics Committee with the decision dated 16/02/2023 and numbered 17162298.600-54

3.2. Instruments

As part of the research, a questionnaire form consisting of four sections was designed for data collection. The first section is the personal information form; the second section is the perceived stress scale (PSS-14); the third section is the employee performance scale; and the fourth section is the earthquake risk perception scale.

3.2.1. Personal Information Form

In the personal information form in the first part of the research, there are questions such as age, gender, educational status, marital status, family type, ownership of the institution, total years of employment, whether the participants have experienced earthquakes before, whether they have suffered losses in previous earthquakes, whether they have had a relative affected by the earthquake that occurred in Kahramanmaraş, and whether they have taken part in any earthquake related activities organized by their institution.

3.2.2. Perceived Stress Scale (PSS-14)

The scale was developed by Cohen, Kamarck & Mermelstein in 1983 to understand the extent to which individuals perceive certain events they experience as stressful. Turkish adaptation,

reliability, and validity studies were conducted by Eskin, Harlak, Demirkıran, and Dereboy (Eskin, Harlak, Demirkıran & Dereboy, 2013). The scale, which is rated on a 5-point Likert scale, consists of 14 items. Participants rate each item on a 5-point Likert scale ranging from "never (0)" to "very often (4)." The 7 items with positive statements (4, 5, 6, 7, 9, 10, 13) are reverse scored. The ASÖ-14 scores vary between 0 and 56. Although the scores formed by the sum of the items indicate the level of stress perceived by the respondent, the high scores obtained mean a high level of perceived stress. In the Turkish validation by Eskin et al. (2013), the internal consistency coefficient of the scale was calculated as 0.84. For the current study, this value was found to be 0.90.

3.2.3. Employee Performance Scale

Kirkman and Rosen (1999), then Sigler and Pearson (2000), the Employee Performance Scale was converted into a four-item version by Çöl by conducting a Turkish validity and reliability study (Çöl, 2008). The scale is answered on a 5-point Likert scale (1=strongly disagree, 5=strongly agree). The Cronbach's alpha internal consistency coefficient of the original scale was found to be 0.94 in Kirkman and Rosen's study, 0.83 in Sigler and Pearson's version, and 0.82 in the Turkish adapted short version. The Cronbach's alpha internal consistency coefficient of the current study was 0.91.

3.2.4. Earthquake Risk Perception Scale

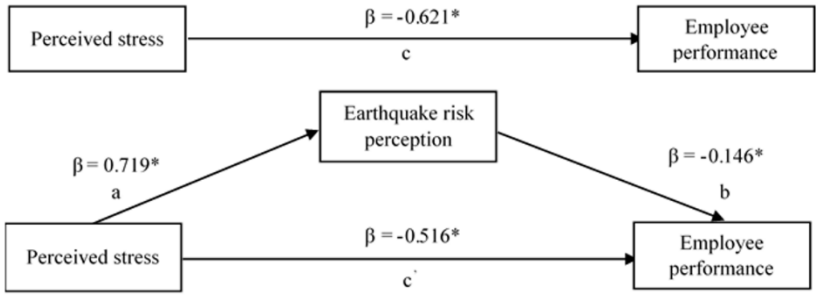
In 2016, Trumbo et al. reported that the scale they developed to determine hurricane risk perception from an emotional and cognitive perspective can be used for other natural disasters and risk areas. Mızrak et al. adapted the hurricane risk perception scale for measuring earthquake risk perception in the Turkish context (Mızrak et al., 2021). The scale consists of 8 items structured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The first 4 items constitute the sub-dimension of emotional risk perception, while the last 4 items constitute the sub-dimension of cognitive risk perception. The score obtained from the scale indicates that the individual's risk perception is high. The total internal consistency coefficient of the scale is 0.86. The overall internal consistency coefficient of the scale in the current study was found to be 0.92.

4. RESULTS

As shown in Table 1, 55.1% of the 1780 participants were female. The mean age of the participants was 31.99 years (±10.401) and the mean total years of employment was 9.69 years (±8.572). When

Table 1: Descriptive statistics of measured variables

Variables	Specifics	n	%
Gender	Male	799	44.9
	Woman	981	55.1
Education	High School	538	30.2
	University	1131	63.5
	Master's degree	89	5.1
	PhD	22	1.2
Marital Status	Married	795	44.7
	Single	985	55.3
Family type	Nuclear family	1490	83.7
	Extended family	290	16.3
Organization ownership	Public	622	34.9
	Private	1158	65.1
Have you ever experienced an earthquake?	Yes	992	55.7
	No	788	44.3
Have you suffered losses in previous earthquakes?	Yes	200	11.2
	No	1580	88.8
Has anyone close to you been affected by the Kahramanmaraş centered earthquake?	Yes	584	32.8
	No	1196	67.2
Have you participated in any earthquake related activity in your organization?	Yes	817	45.9
	No	963	54.1
	Mean±SS; Median (Min-Max)		
Age (year)	31.99±10.401; 29 (18-70)		
Total working time in the profession (year)	9.69±8.572; 7 (1-43)		



** p<0.001*

Figure 2: The mediating effect of earthquake risk perception in the relationship between perceived stress and employee performance.

analyzing the educational status, the percentage of university graduates was 63.5%. 55.3% of the participants were single, 83.7% were members of a nuclear family. 65.1% of the participants stated that the ownership of the organization they worked for belonged to the private sector. 55.7% of the participants reported that they had experienced an earthquake before, and 11.2% reported that they had suffered losses in a previous earthquake. The rate of those who had a relative affected by the earthquake centered in Kahramanmaraş is 32.8%. The proportion of participants who stated that they did not take part in any workplace organized earthquake preparedness or response activity is 54.1%.

As seen in Figure 2, there is a negative and significant relationship (β=-0.621, p<0.001) between perceived stress and employee performance. This indicates that hypothesis 1 is supported. The relationship between perceived stress and earthquake risk perception was found to be positive and significant (β=0.719, p<0.001). Figure 2 also shows that there is a negative and significant relationship between earthquake risk perception and employee performance (β=-0.146, p<0.001). Thus, Hypothesis 3 is supported.

Mediation bootstrapping analysis was conducted to determine the mediation of earthquake risk perception in the relationship between perceived stress and employee performance. The results of the mediation effect test are presented in Table 2. According to the results, earthquake risk perception plays a mediating role in the relationship between perceived stress and employee performance. In other words, perceived stress affects employee performance indirectly (a*b) through earthquake risk perception (B=-0.014, BootSE=0.003; 95% BootCI [-0.019, -0.009]). Because the bootstrap confidence interval does not include zero, the indirect effect is statistically significant (Hayes, 2022).

5. DISCUSSION

This study examined the role of earthquake risk perception as a mediating factor in the effect of perceived stress on employee performance. The

Table 2: Mediation role of earthquake risk perception

		B	SE	t	LLCI	ULCI	R^2	F
Outcome variable: Earthquake risk perception (M)								
(Constant)		7.665	0.529	14.478*	6.626	8.703	0.517	1905.057
Perceived stress (X)	*a*	0.667	0.153	43.647*	0.637	0.697		
Outcome variable: Employee Performance (Y)								
(Constant)		5.871	0.090	65.495*	5.695	6.047	0.396	582.363
Perceived stress (X)	*c'*	-0.068	0.004	-19.450*	-0.075	-0.062		
Earthquake risk perception (M)	*b*	-0.021	0.004	-5.496*	-0.028	-0.013		
		Effect	**BootSE**	**t**	**BootLL CI**	**BootUL CI**		
Indirect effect (X→M→Y)	*a*b*	-0.014	0.003	-	-0.019	-0.009		
Total effect (X→Y)	*c*	-0.082	0.002	-33.409*	-0.087	-0.078		

LLCI; Low Limit Confidence Interval, UPCI: Upper Limit Confidence Interval
** p<0.001, Bootstrap sample size=5000*

results of the study support the hypotheses that perceived stress has a negative relationship with employee performance, perceived stress has a positive relationship with earthquake risk perception, earthquake risk perception has a negative relationship with employee performance, and earthquake risk perception has a mediating effect on the relationship between perceived stress and employee performance.

Consistent with this framework, higher perceived stress is associated with lower employee performance, and this association aligns with prior evidence. The higher the individual's perceived stress level, the lower the employee performance (Avunduk, 2021; Meunier et al., 2022; Ye, Hu, Ni, Jiang & Jiang, 2018). Natural disasters are a stress factor that significantly threatens human health and productivity (Hu et al., 2021). The magnitude of the natural disaster, the area affected, and the large population add to this stress burden (Sakuma et al., 2020). Confronting the threat of a disaster creates safety concerns in the first place (Farlis, Bachtiari Rifai & Ridwan, 2022). Such safety concerns may depress performance beyond directly impacted regions, as shown in recent studies (Sert et al., 2023). In addition, the earthquake experience may cause anxiety related to the deaths and injuries caused by the event, while causing panic, fear, and tension among survivors. This situation can also cause individuals to worry about coping with uncertainty about the future (Xu et al., 2016). Experiencing a devastating earthquake in a country may cause residents of that country to see the possibility of an earthquake as higher risk, feel unhappier, and be less satisfied with their current lives (Cui & Han, 2019).

Another striking finding of the research is that perceived stress has a strong positive effect on earthquake risk perception. Our interpretation focuses on the tested direction in this study, that is, perceived stress increases earthquake risk perception. There are many studies that show that a stressful environment increases the level of risk (Bronfman, Cisternas, Repetto, Castañeda & Guic, 2020; Wei & Lindell, 2017). Risk perception is influenced by the situation an individual faces, individual characteristics, and previous experiences (Jansen, 2020). A person's cognitive structure can lead them to perceive any source of stress as threatening, challenging, harmful, and causing loss (Ionescu et al., 2021). In particular, susceptibility to stress deeply affects people's risk perception (Armaş, Cretu & Ionescu, 2017). The time elapsed since the natural disaster experience affects the relationship between the experience and risk perception (Bronfman et al., 2020). The intense anxiety and reduced sense of control that follow disasters can elevate perceived stress, which in turn heightens earthquake risk perception. The occurrence of crisis events and the resulting stress greatly increase individuals' perceived risks, and threats and uncertainties can easily push individuals into depression (Li & Lyu, 2021). Literature sometimes discusses the reverse path, where higher risk perception may itself act as a stressor, yet that alternative direction was not tested here and is noted only as contextual background.

Another result of the study is the significant negative effect of earthquake risk perception on employee performance. The negative effects of earthquakes pose a great risk to all people (Mızrak et al., 2021). The way risk is perceived significantly affects behavior (Jingwen, Rahman & Tong, 2022). The main reasons why risk perception makes it difficult for people to take action can be explained by feeling vulnerable to threats and having limited resources to cope with these threats (Sullivan-Wiley & Short Gianotti, 2017). In our model, higher perceived stress increases earthquake risk perception, and heightened risk perception is associated with lower performance. For some individuals, it is not easy for the psychological and physical symptoms triggered by this trauma to disappear and return to normal (Daniel, 2019). This result will also have an impact on work life. There are many research results showing that employee performance decreases after natural disasters (Fabeil, Marzuki, Razli, Majid & Pawan, 2019; McKibben et al., 2010; Sert et al., 2023). A similar situation was experienced during the Covid period. Covid stress was found to have a direct negative impact on employee performance (Moyo, Bhappu, Bhebhe & Ncube, 2022; Sadovyy, Sánchez-Gómez & Bresó, 2021).

This study is the first to examine the mediating effect of earthquake risk perception on the relationship between perceived stress and employee performance. Taken together, the findings support a coherent pathway, perceived stress increases earthquake risk perception, and this heightened perception partially explains lower employee performance. It will be possible to prevent the business environment in the earthquake zone from being affected by the negative effects by reducing the subjective risk perception developed towards the earthquake.

6. CONCLUSION

The study confirmed that there was a significant relationship between perceived stress and employee performance among the working population in Ankara province one month after the earthquakes in

the Kahramanmaraş region in March-April 2023, and that this relationship was mediated by earthquake risk perception. These findings once again emphasize the importance of earthquake risk research. Because understanding these dynamics plays an important role in developing effective disaster risk management strategies and employee support systems. These strategies should aim to correctly manage earthquake risk perceptions, increase employees' ability to cope with post-disaster stress, and continue business processes without interruption. For example, organizations can implement targeted interventions to reduce post-earthquake stress and improve overall business performance. These interventions may include various measures such as training programs, psychological support services, flexible work arrangements, and rapid response teams.

In conclusion, this study suggests ways to develop a more resilient workforce in the face of environmental threats such as earthquakes. By recognizing the importance of earthquake risk perceptions in understanding and managing the relationship between perceived stress and employee performance after earthquakes, organizations can develop more effective and sustainable disaster management strategies and employee support systems. These efforts will not only improve employee well-being but will also support the overall resilience and long-term success of organizations.

This study has several limitations. First, although occupational groups may have different perceptions of stress based on their job descriptions, the study did not account for these differences. For example, different occupational groups such as health care workers, teachers, and office workers may have different perceptions of stress and its effects on job performance, but this study did not make this distinction. The cross-sectional nature of the study means that the data obtained only reflect the situation at one point in time. This limits the generalizability of the results, as long-term effects or changes over time were not assessed. In addition, the data used are based on the subjective opinions and personal statements of the sample group included in the study. This may increase the likelihood of bias or misleading information in participants' responses, which may affect the accuracy of the results. Although Ankara, where the study was conducted, is located in an earthquake zone, it has not been directly affected by any recent devastating earthquakes. This may limit a full understanding of the participants' perceptions of earthquake risk and its impact on job performance. This type of research conducted in a region without direct earthquake experience may affect the strength and extent of the associations obtained. In order to obtain more comprehensive and generalizable results, it is recommended that similar studies be conducted in regions directly affected by earthquakes. Such studies will allow a more accurate and detailed examination of earthquake risk perception and its impact on work performance. In addition, long-term follow-up studies to assess changes over time and long-term effects will provide a more comprehensive understanding of psychological and performance effects following an earthquake.

ETHICS DECLARATIONS

Support Information: This study has not received support from any organization such as government, commercial or non-profit organizations.

Conflict of Interest: The corresponding author declares no conflict of interest.

Author Contribution Declaration: 1st author's contribution rate is 35%, 2nd author's contribution rate is 13%, 3rd author's contribution rate is 13%, 4th author's contribution rate is 13%, 5th author's contribution rate is 13%, 6th author's contribution rate is 13%.

Ethical Approval: All procedures performed in studies involving human participants conform to the ethical standards of the institutional and/or national research committee and the 1964 Helsinki declaration and its subsequent amendments or comparable ethical standards.

For this research, Başkent University Ethics Committee Approval was obtained from the Scientific Research Ethics Committee with decision number: 17162298.600-54 and date 16.02.2023.

Informed Consent Form: Informed consent form was obtained from all individual participants who participated in the study.

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