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THE EFFECTS OF EMPLOYEES' FEAR OF COVID-19 ON THE WORKPLACE SAFETY CLIMATE: AN APPLIED STUDY

ÇALIŞANLARIN COVİD-19 KORKUSUNUN İŞYERİ GÜVENLİK İKLİMİ ÜZERİNDEKİ ETKİLERİ: UYGULAMALI BİR ÇALIŞMA

Derya ÇEVİK TAŞDEMİR[(1)]

Abstract: In the research, the effect of employees' COVID-19 anxiety on workplace safety climate was examined in line with the occupational safety climate theory, Psychological Contract Theory and Stress Management Model. The research was carried out with 388 data collected by questionnaire method from healthcare professionals in Kahramanmaraş. Two separate structural models were used to examine the effects of COVID-19 phobia on safety climate and its various components. The findings obtained from the analyses showed that COVID-19 phobia has a significant effect on the perception of safety climate, especially affecting sub-dimensions such as the manager's perspective and compliance with safety rules. In addition, COVID-19 phobia was found to affect the training of colleagues and general safety practices. The research offers a new perspective by emphasizing the role of managerial perspective and rules and the role of colleague and safety training in this relationship. The study provides important information that can help employers and managers develop effective strategies and policies to cope with COVID-19 phobia. The findings contribute to the literature on the subject and provide a basis for future studies.

Keywords: Occupational Health and Safety, Safety Climate, Pandemic, Global Challenges, COVID-19.

JEL: *J00, J28, J24, I18*

Abstract: *Araştırmada, çalışanların COVID-19 endişesinin işyeri güvenlik iklimi üzerindeki etkisi, mesleki güvenlik iklimi teorisi, Psikolojik Sözleşme Teorisi ve Stres Yönetimi Modeli doğrultusunda incelenmiştir. Kahramanmaraş'taki sağlık çalışanlarından anket yöntemiyle toplanan 388 veri ile gerçekleştirilmiştir. COVID-19 fobisinin güvenlik iklimi ve çeşitli bileşenleri üzerindeki etkilerini incelemek için iki ayrı yapısal model kullanılmıştır. Analizlerden elde edilen bulgular, COVID-19 fobisinin güvenlik iklimi algısı üzerinde önemli bir etkiye sahip olduğunu, özellikle yöneticinin bakış açısı ve güvenlik kurallarına uyum gibi alt boyutları etkilediğini göstermiştir. Ayrıca, COVID-19 fobisinin meslektaşların eğitimini ve genel güvenlik uygulamalarını etkilediği bulunmuştur. Araştırma, yönetsel bakış açısı ve kuralların rolünü ve bu ilişkide meslektaş ve güvenlik eğitiminin rolünü vurgulayarak yeni bir bakış açısı sunmaktadır. Araştırma, işverenlerin ve yöneticilerin COVID-19 fobisiyle başa çıkmak için etkili stratejiler ve politikalar geliştirmelerine yardımcı olabilecek önemli bilgiler sunmaktadır. Bulgular, konuyla ilgili alanyazına katkı ve gelecekteki çalışmalar için bir temel sağladığını göstermektedir.*

Keywords: *İş Sağlığı ve Güvenliği, Güvenlik İklimi, Pandemi, Küresel zorluklar, COVID-19.*

[(1)] Gaziantep Üniversitesi, Oğuzeli Meslek Yüksekokulu, Yönetim Organizasyon Bölümü; deryaceviktasdemir@gmail.com, ORCID: 0000-0002-0006-9652
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1. Introduction

The COVID-19 pandemic, which began in 2019, has had a global impact, affecting countries worldwide. It has not only brought changes to people's daily lives but has also transformed work activities in various sectors due to the implementation of safety measures (Fargnoli & Lombardi, 2021, p. 1). These measures, aimed at reducing the spread of the virus, have led to more stringent occupational health and safety procedures in both social and work settings. The COVID-19 pandemic, combined with technological advancements and economic crises, has resulted in job market shrinkage. The detrimental effects of the pandemic have further intensified this situation, raising concerns about the impact on workplace safety climate. Employers have had to adapt to this new reality by implementing measures to ensure the well-being and welfare of their employees. These measures include physical distancing, provision of personal protective equipment (PPE), increased sanitation practices, and promotion of remote work whenever possible. The objective is to create a safe work environment that minimizes the risk of COVID-19 transmission. Understanding the effects of the pandemic on the workplace safety climate is crucial for organizations to effectively address the challenges posed by COVID-19. This involves ensuring compliance with health and safety regulations, providing appropriate training and resources, fostering open communication channels, and cultivating a culture of responsibility and accountability among employees. By prioritizing the safety climate and continuously adapting to changing circumstances, organizations can safeguard the well-being of their employees while maintaining productivity and business continuity in these challenging times.

The research focuses on health workers in Turkey as the study population. There are various reasons for this. The heavy burden of countries' struggle with COVID-19 is, unfortunately, on the employees. The risk of COVID-19 infection has also been added to several severe threats, regarding occupational health and safety (OHS), faced by the employees (Sinclair et al., 2020, p. 1). Besides, the industry in Turkey experienced a short quarantine period, and the continuity of production has been adopted as government policy. While the advantage of this status has been recovering productivity, its disadvantages have been a higher infection risk and a change in the employees' perceptions of safety. In this research, a situation assessment was performed to understand better how the concern about COVID-19 affects the employees' safety behaviors and attitudes. In general, this study intended to extend the knowledge regarding employees' fear and safety consciousness and perceptions shared during COVID-19 by emphasizing the necessity for specific and contextual interventions in terms of the importance of concern about COVID-19 and workplace safety climate.

Healthcare workers have encountered numerous challenges due to the COVID-19 pandemic, which differ from their usual working conditions. The risk of exposure to SARS, MERS, and Ebola pandemics has significantly affected healthcare workers during the COVID-19 crisis (Pala & Çetindaş, 2020: 157). They were exposed to intense working hours in working environments where the safety climate is low due to the infection risk and the fear of causing the infection to spread unknowingly. Thus, health workers on Turkey constituted the sample of the the present study.

Although the understanding of workplace safety climate and phobia of COVID-19 are crucial, there is limited existing research on these topics. According to these researches, the COVID-19 outbreak is an important factor affecting the health and

safety. It is thought that fear and anxiety in the workplace can affect the motivation, performance, and general workplace safety climate of employees. Zhiqing et al. (2020) found that the fear experienced by employees during the COVID-19 outbreak has an adverse impact on the workplace safety climate. Ong et al. (2021) found that effective and regular communication reduces the fear and anxiety of employees and improves the workplace safety climate. A study by Kim and Lee (2020) found that it is important for employees to receive emotional and social support to deal with the phobia of COVID-19 at workplace. In addition, Bakker et al. (2021) concluded that fear and anxiety weaken the workplace safety climate and negatively affect employee motivation and job performance.

This literature review shows that employees' phobia of COVID-19 can have adverse impacts on the workplace safety climate. It is crucial for managers in the workplace to take measures to manage the fears and anxieties of employees, provide effective communication, and offer emotional support. In addition, taking appropriate measures to ensure the safety of employees and provide up-to-date information to employees is an important step. The research conducted aims to explore the correlation between COVID-19 anxiety and safety climate within the existing literature. By examining the shifts in organizational safety climate resulting from COVID-19, this study seeks to fill a gap in the current body of research.

Therefore, the research hypothesis was formulated as "the phobia of COVID-19 has an impact on the perception of safety climate." Furthermore, it is necessary to explore the potential relationship between the phobia of COVID-19, safety climate perceptions, and occupational health and safety (OHS) issues. This will provide a deeper understanding of how this situation influences employees' perceptions and attitudes towards safety. The importance of consideration of these factors is indicated in the strong relationship between the employees' welfare at the workplace and the safety climate of such organizations.

2. Literature Review

2.1. COVID-19 Phobia

Phobia is defined as "extraordinarily strong fear felt against specific objects or circumstances, dread." Phobia of COVID-19 is defined as a permanent and excessive fear felt against coronavirus (Arpacı, Karataş, & Baloğlu, 2020, p. 1). The concerns of the people are increasing by the increasing number of people infected with the 2019 novel type of corona virus (COVID-19) worldwide. During the continuation of the COVID-19, a wave of fear and concern is occurring in society due to the high death and infection rates of the pandemic. As there are living proof of previous SARS and Ebola epidemics, the fear of the COVID-19 is able to cause negative consequences of the disease's control (Lin, 2020, p. 1). Unfortunately, in some cases, fear is able to increase the degree of damage caused by the disease itself. When compared with other conditions, it is observed that the characteristic nature of the infectious disease is fear. Fear is directly related to morbidity and mortality as well as its rate and medium of dispersion (Ahorsu et al., 2020).

The pandemic is presenting itself as a psycho-social risk factor in work environments as much as among people. COVID-19 has important negative effects on people.

In addition to being a medical phenomenon, pandemics are a social phenomenon (Karataş, 2020: 6). Because the conditions of those involving mass infectious diseases

cause considerable deterioration in the behavior and psychological well-being of a significant part of the society. (Balaratnasingam & Janca, 2006; Lee, 2020: 393). The possibility of contracting COVID-19 causes behaviour in unpredictable ways by distorting psychological responses (Amin, 2020: 249). If precautions are not taken, it is expected that the psychological problems experienced in the society will have critical sociological consequences.

Physical inactivity as a result of COVID-19, unhealthy diet caused by the shortening of fresh food access and uncontrollable stress affect physical and mental health and cause negative effects on work-life quality. Globally, cardiovascular events are among the important somatic risk factors for chronic disease morbidity, especially obesity and diabetes (Lippi & Sanchis-Gomar, 2020; Yüce & Dimple: 2021: 284). Any perceived mild physiological symptoms increase the fear of coronavirus by increasing somatic sensitivity in humans (Kumar & Tankha, 2022:1-2).

In addition to the severe negative somatic, psycho-social impacts of the COVID-19, significant economic effects are already observed in many countries (Arpaci et al. 2020). The global COVID-19 health crisis has caused a significant macroeconomic shock to both individual and overall incomes (Vo et al., 2021: 1). The widespread lockdown measures have resulted in immediate and drastic consequences across various aspects of life, such as individuals' and families' abilities to allocate time, work and earn income, consume goods and services, and maintain their health (Adams & Prassl et al., 2020). The economic dimension of the experienced situations can be handled from different perspectives. Similarly, if precautions are not taken, illness and as a result of their incapacity for work, people who struggle with the disease experience loss of income and may face some health costs. However, we should note that there is an overlooked fact. For example, what will happen if the measures are not implemented. Implementing remote or hybrid work arrangements in response to the risk of COVID-19 transmission enhances workplace safety and promotes better health outcomes. In addition to protecting against COVID-19, it also protects employees against many other infections (Wimalawansa, 2020). Before COVID-19, healthcare workers were infected with many occupational infections. They can be protected from these occupational diseases with the new working conditions that came with the pandemic. In addition, work accidents can decrease as a result of hybridizing working environments.

2.2. Safety Climate

The analysis of occupational health and safety (OHS) often focuses on factors such as lost working hours, direct costs of accidents, the number of accidents, and occasionally the severity of accidents. Despite, the root causes are often different than these determined elements. At this point, when we investigate the root causes, the factor that creates insecure environments at workplaces is actually the mediation of negative manners and impressions on the behaviors. The insecure attitudes and behaviors at workplaces negatively affect the tendency to “accidents” (Heinrich, 1931; Suchman, 1961; Wigglesworth, 1978), and many “unsecure” attitudes arise prior to accidents (Coyle, Sleeman, & Adams, 1995, pp. 247-248).

The approach of safety climate relates to how employees perceive workplace safety policies, procedures, and practices (Barling, Loughlin, & Kelloway, 2002; Griffin & Neal, 2000; Neal & Griffin, 2006, pp. 946–947; Zohar, 2003). It encompasses employees' understanding of the significance of their own safety within the

organization (Neal & Griffin, 2004, p. 18), and is closely interconnected with Occupational Health and Safety.

OHS is the discipline encompassing various engineering, management, and health practices aimed at ensuring the physical and mental well-being of individuals within the workplace during work activities (Çevik Taşdemir, 2020, p. 84). Within the scope of OHS, many legislations are continuing to be put into practice at international and national levels for the sake of enabling the employees to work in a healthier and safer environment. However, putting into practice the changes in legislations is unfortunately not being easy. For a change to be able to be applied, it is often required for it to settle as a culture. The case is the same also in OHS (Fargnoli & Lombardi, 2021, p. 18). Within this frame, great responsibility falls upon the parties in settling safety climate at workplaces. In the institution of safety climate perceived, the support of the management is a significant factor for encouraging a safe environment in terms of the employees (Kim, Kim, & Lee, 2021, p. 2).

3. Hypothesis Development

According to the occupational safety climate theory, which expresses employees' perceptions and beliefs about safety in the workplace, how employees perceive the occupational safety climate can affect their safety-related behaviors (Zohar, 2010). In addition, according to the psychological contract theory, where the psychological contract expresses the mutual expectations established between employees and employers, stressful situations such as COVID-19 can affect employees' safety expectations and reactions (Rousseau, 2004). According to the Stress-Management Model theory, stressful situations such as the COVID-19 outbreak can cause an increased level of stress in employees, which, in turn, can affect the workplace safety climate (Lazarus & Folkman, 1984).

Zhiqing et al. (2020) found that as the level of employees' fear increases, the safety climate in the workplace weakens, and employees are less likely to comply with safety precautions. Ong et al. (2021) argued that establishing effective communication channels in workplaces, providing social support, informing employees, and ensuring access to up-to-date information are important for positively influencing the safety climate. In a study by Kim and Lee (2020), it was observed that when employees receive support, the workplace safety climate is more positive, and employees are more likely to comply with safety precautions. In addition, Bakker et al. (2021) concluded that fear and anxiety weaken the workplace safety climate and have a negative impact on employee motivation and job performance. Another meta-analysis examining the effects of employees' phobia of COVID-19 on the workplace safety climate supported these findings (Bakker et al., 2021). The research concluded that fear and anxiety undermine the workplace safety climate and negatively affect employee motivation and job performance.

There is a growing emphasis on OHS due to the concerns related to COVID-19, suggesting in an association of the dimensions of safety climate and specific workplace safety measures pertaining to the pandemic. In light of this, the hypothesis formulated is as follows:

H1: Employees' phobia of COVID-19 affects the perception of safety climate.

Kılıç and Güngör (2021) examined how phobia of COVID-19 affects employees' perceptions of the safety climate. The research suggested that phobia of COVID-19 is

a determining factor in employees' perceptions of the safety climate. Han and Kim (2021) examined the effects of phobia of COVID-19 on employees' safety behaviors and safety climate and emphasized that executive factors and rules may influence the relationship between phobia of COVID-19 and perceptions of safety climate. Jabeen and Mahmood (2021) investigated how transformational leadership and ethical climate affect employees' safety behaviors during the COVID-19 pandemic. The research revealed that managers' leadership styles and ethical climate significantly impact employees' perceptions of safety climate. Bakker and Demerouti (2020) evaluated how phobia of COVID-19 might affect the way employees perceive the safety conditions in their worksite within the framework of the job demands-resources theory. They found that the manager's perspective and rules play a crucial role in employees' perception of safety climate, and these perceptions in turn affect employees' emotional states and performance.

The influence of COVID-19 fears on the perception of safety climate, particularly in terms of managers' perspectives and regulations, is suggested. In this context, the following hypothesis is formulated:

H2: Employees' phobia of COVID-19 affects the perception of safety climate regarding the manager's point of view and rules.

Yazıcı, Şimşek, and İnce (2020) conducted research examining the relationship between phobia of COVID-19 and perceptions regarding the safety climate within the workplace. The study revealed the mediating and moderating effects of colleague support and safety training in this relationship. The findings indicated that phobia of COVID-19 can have a negative impact on the view of safety climate in the worksite, but the supportive role of colleagues and safety training can mitigate this effect. Cho and Lee (2021) found that increasing phobia of COVID-19 negatively affected the perception of safety climate, leading to reduced trust in colleague support and safety training. Zhang, Yang, & Wang (2021) demonstrated that phobia of COVID-19 has a negative impact on the perception of safety climate, but coworker support and safety training act as buffers in this relationship. In other words, colleague support and effective safety training can positively influence the perception of safety climate by reducing employees' phobia of COVID-19. Hsieh and Lee (2020) found that colleague support is crucial in coping with phobia of COVID-19 and has a positive effect on the perception of safety climate. Kuhlmann & Rickli (2021) showed that employee participation in safety training and the quality of these trainings enhance employees' ability to cope with phobia of COVID-19 and positively impact their perception of safety climate.

It is argued that phobia of COVID-19 affects the perception of safety climate concerning coworker relationships and safety training. In this context, the following hypothesis is formulated:

H3: Employees' phobia of COVID-19 affects their perception of safety climate regarding coworkers and safety training.

4. Material and Method

4.1. Data Collection

The universe of the study consists of healthcare professionals who constitute the group with the highest risk of direct contact with the disease during the COVID-19 pandemic. Accordingly, the sample group of the study consisted of healthcare

professionals working in Kahramanmaraş province. Population-sample tables were taken as basis in determining the sample size, and the minimum sample size was calculated as 384 people, taking into account the 95% confidence level and 5% margin of error Yazıcıoğlu ve Erdoğan (2014;89). Simple random sampling method was used for data collection. In this context, a questionnaire was applied to 400 health workers and 388 of the data obtained were found appropriate and included in the analysis process.

During the COVID-19 pandemic, production activities were able to continue; however, in order to adhere to restrictions and minimize the risk of infection, data collection was conducted through the use of an online questionnaire. The completion of the online questionnaire took about 4-5 minutes. The initial phase of this study encompassed demographic inquiries, while the subsequent segment entailed two distinct scales aimed at assessing employees' COVID-19-related apprehensions and the extent of the safety climate. The scales used are provided below.

Scale of Phobia of COVID-19 (C19P-S): The C19P-S scale, introduced by Arpacı et al. (2020), was designed to gauge the potential development of coronavirus-related phobia. This 5-point Likert-type self-assessment tool offers a means of measurement.

Scale of Safety Climate: The scale utilized in this study, originally developed by Choudhry, Fang, and Lingard (2009), was adapted and condensed to specifically measure the safety climate. Türen, Gökmen, Tokmak, and Bekmezci (2014) conducted validity and reliability studies on this reduced version of the scale. It is a self-assessment tool utilizing a 5-point Likert scale, consisting of two dimensions: 'management and rule perspective' and 'colleagues and safety training'.

4.2. Ethical Approval

To maintain ethical compliance, the required permits were derived from the Ethical Board at Gaziantep University, under decision number 12, dated June 01, 2021.

4.3. Research Findings

No pilot studies were conducted in this research. In this study, initially, one by one, intensity analyses of demographic questions and cross-intensity analyses of some demographic questions were performed. It was observed that 53.7% of the participants of the questionnaire were male, and 45% of them were female. While 24.6% of the participants had bachelor’s degrees, 9% of them were secondary school graduates. It was observed that 264 participants (67.5%) were married, and 124 participants (31.7%) were single. Given the participants’ years of working at the enterprise, the ones working for 1-5 years constituted the largest share, 33.5%. When the income and expense status was examined, it was observed that the responses of the participants showed a distribution close to each other as contrary to expectations.

In the present study, through the cross-intensity examination of specific questions, whether specific demographic statuses interact with each other or not were observed. Cross-evaluation of the relationship between income and expense, being one of the significant questions in this study, on the basis of gender, was examined. According to this, while 57.7% of the males specified that their incomes were equal to their expenses, this rate was determined as 40.9% among females. When the level of relationship between income and expense variable with the educational status is analyzed in parallel to the expectations, it is observed that the rate of participants

whose incomes were higher than their expenses was decreasing as the educational level was decreasing.

4.4. Analysis of Data

The two-stage approach proposed by Anderson and Ginberg (1988), which includes the combination of measurement model with structural equation modeling, was used for data analysis. In order to test a structural model, researchers must first create a measurement model. The measurement model includes measurements of the factors underlying one or more variables. This model evaluates the level of fit between the relationships by modeling the relationships between the factors. On the other hand, the structural model determines the effect of the independent variables of interest to the researcher on the dependent variables by testing the hypotheses. The structural model allows the testing of structural relationships between the dependent variables based on the measurement model.

Before the analysis of the data set, Cook distance values were calculated to determine whether extreme values were present. The findings revealed that the dataset did not contain any extreme values, as indicated by Cook distance values <1. The skewness and kurtosis coefficients falling within the spectrum of ±1 were sufficient to support the assumption of a normal distribution (Tabachnick & Fidell, 2007). Calculated coefficients demonstrated that the data adhered to the assumption of normal distribution (-0.44≤skewness≤0.30, -1.00 ≤ kurtosis≤ -0.45). Variance Inflation Factor (VIF) values were computed to examine potential multicollinearity issues among the research variables (Cokluk et al., 2010). The highest VIF value was determined to be 4.10, indicating the absence of multicollinearity. The statistical package program IBM AMOS 24.0 was employed for data analysis.

4.5. Findings

Measurement Framework: The measurement model included variables such as COVID-19 phobia, safety climate, and its sub-dimensions. To evaluate the construct validity of the measurement model, confirmatory factor analysis (CFA) was utilized, while examining its convergent and discriminant validity. The maximum likelihood method was utilized for model testing. A factor loading cut-off point of 0.50 was established (Fabrigar et al., 1999). Goodness of fit index values were computed to assess the fit between the model and the data. The calculated goodness of fit values (χ 2 = 1555.78; Sd= 501; χ 2 /sd=3.11; p<0.01; RMSEA=0.06; SRMR= 0.05; CFI=0.92; TLI = 0.91; IFI= 0.92; GFI=0.90; AGFI=0.88) indicated an acceptable level of agreement between the model and the data (Bollen, 1989; Browne & Cudeck, 1993; Hu & Bentler, 1999; Tanaka and Huba, 1985). Factor loadings, Average Variance Extracted (AVE), Composite Reliability (CR), Maximum Shared Variance (MSV), MaxR(H), and Alpha coefficients are presented in Table 1.

Table 1. Measurement Model Results

Scale	Factor	Item no.	Factor load	AVE	CR	MSV	MaxR(H)	Alfa
Safety climate	Management perspective and rules	S1	0,75	0,64	0,94	0,83	0,95	0,94
		S2	0,77					
		S3	0,84					
		S4	0,81					
		S5	0,82					
		S6	0,82					
		S7	0,80					
		S8	0,82					
		S9	0,80					
		S10	0,79					
	Co-workers and safety training	S11	0,72	0,58	0,85	0,83	0,86	0,84
		S12	0,71					
		S13	0,82					
		S14	0,80					
COVID-19 phobia	Psychological factors	Cp1	0,61	0,56	0,88	0,89	0,90	0,88
		Cp2	0,85					
		Cp3	0,71					
		Cp4	0,80					
		Cp5	0,64					
		Cp6	0,84					
	Psycho-somatic factors	Cp7	0,64	0,53	0,85	0,96	0,86	0,84
		Cp8	0,77					
		Cp9	0,73					
		Cp10	0,80					
		Cp11	0,66					
	Economic factors	Cp12	0,77	0,59	0,84	0,96	0,85	0,84
		Cp13	0,71					
		Cp14	0,80					
		Cp15	0,78					
	Social factors	Cp16	0,85	0,62	0,89	0,94	0,91	0,88
		Cp17	0,83					
		Cp18	0,86					
		Cp19	0,74					
		Cp20	0,62					

AVE refers to Average Variance Extracted, CR stands for Composite Reliability, MSV represents Maximum Shared Variance, and MaxR(H) denotes Maximal Reliability. In the context of this study, Sc represents Safety Climate, while Cp represents COVID-19 Phobia.

When Table 1 is examined, it is understood that the calculated alpha values are above 0.70. This result indicated that factors' internal consistency reliability was reliable (Cortina, 1993). An AVE value of 0.50 and a CR value of over 0.70 are considered as evidence of convergent validity (Fornell & Larcker, 1981). Additionaly, providing the CR>AVE condition is another proof of convergent validity (Hair et al., 2010). The values calculated for the factors in the measurement model met the stated conditions, which showed that convergent validity was provided for the factors. It was observed that the MSV<AVE condition could not be met in terms of discriminant validity. However, it was observed that the MaxR(H) reliability value was larger than the CR values. This supports the conclusion that discriminant validity is provided (Hu & Bentler, 1999).

4.6. Correlation Analysis Results

Coefficients of Pearson correlation were computed to explore the associations among the scores of Safety Climate and COVID-19 Phobia. These coefficients were employed to investigate the relationships between the two variables. Furthermore, descriptive statistics for the scores of Safety Climate and COVID-19 Phobia were calculated. The results are presented in Table 2.

Table 2. Coefficients of Pearson Correlation

No.	Variables	M	sd	1.	2.	3.	4.	5.	6.
1.	Management perspective and rules (Sc)	34,42	10,73	1					
2.	Co-workers and safety training (Sc)	14,30	4,15	,82**	1				
3.	Psychological factors (Cp)	18,66	6,72	,47**	,49**	1			
4.	Psycho-somatic factors (Cp)	15,56	5,54	,41**	,41**	,84**	1		
5.	Economic factors (Cp)	11,69	4,84	,43**	,41**	,75**	,75**	1	
6.	Social factors (Cp)	15,79	5,91	,44**	,42**	,77**	,78**	,81**	1

**p<0,01; N=403; Sc= Safety climate, Cp= COVID-19 phobia

Upon examining Table 2, it is detected that there are moderate positive and significant relationships between the scores of management perspective and rules and the scores of Psychological factors (r=0.47; p<0.01), Psycho-somatic factors (r=0.41; p<0.01), Economic factors (r=0.43; p<0.01), and Social factors (r=0.44; p<0.01).

Co-workers and safety training scores with Psychological factors (r=0.49; p<0.01), Psycho-somatic factors (r=0.41; p<0.01), Economic factors (r=0.41; There are moderate positive and significant relationships between the scores of p<0.01) and Social factors (r=0.42; p<0.01).

4.7. Structural Model

To test the first hypothesis of the study, a structural model was developed and examined (Figure 1). In this model, COVID-19 phobia was treated as the independent variable, while safety climate was considered the dependent variable. The maximum likelihood method was applied test the model. The calculated goodness of fit values (χ 2 = 1640.87; Sd= 506; χ 2 /sd=3.24;

p<0.01; RMSEA=0.06; SRMR= 0.05; CFI=0.91; TLI = 0.91; IFI= 0.91; GFI=0.89; AGFI=0.87) indicated a good fit between the model and the data (Bollen, 1989; Browne & Cudeck, 1993; Hu & Bentler, 1999; Tanaka and Huba, 1985). In table 3, the path coefficient, standard error value, significance level, and confidence intervals are presented.

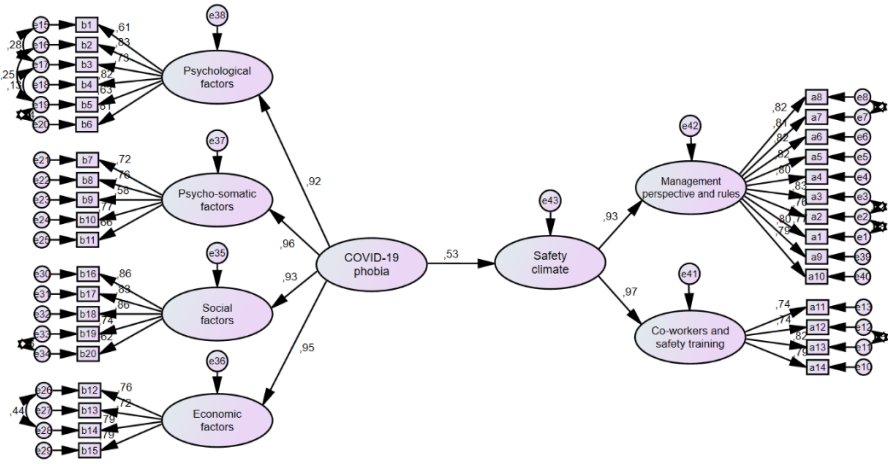


Figure 1. Structural Model Testing Impact of COVID-19 Phobia on Safety Climate

When Table 3 is examined, when the path coefficients are examined, the predictive power of the safety climate of COVID-19 phobia is 0.53 (95% CI [0.44; 0.65], p<0.001). As the phobia of COVID-19 increases, the perception of safety climate also increases. The COVID-19 phobia explained 28% of the change in the safety climate. According to this result, the H1 was accepted.

Table 3. The Effect of COVID-19 Phobia on the Safety Climate Model Testing Results

	β	SE	p	95%CI		Hypothesis
				Alt	Top	
COVID-19 phobia ---> Safety climate	0,53	0,09	<0,001	0,44	0,65	Acceptance

The structural model depicted in Figure 2 was constructed to determine the effect of COVID-19 phobia on the components of safety climate. The calculated goodness of fit values (χ 2 = 1974.06; Sd= 507; χ 2 /sd=3.89; p<0.01; RMSEA=0.07; SRMR= 0.06; CFI=0.90; TLI = 0.90; IFI= 0.90; GFI=0.88; AGFI=0.86) demonstrated a good fit between the model and the data (Bollen, 1989; Browne & Cudeck, 1993; Hu & Bentler, 1999; Tanaka and Huba, 1985). The calculated path coefficients, standard error values, significance levels, and confidence intervals can be found in Table 4.

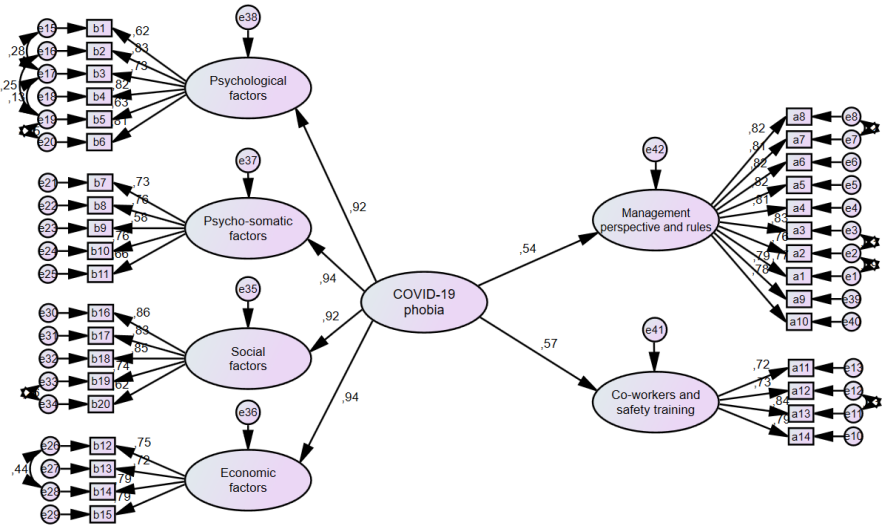


Figure 2. Structural Model Testing Impact of COVID-19 Phobia on Safety Climate Components

When Table 4 is examined, the predictive power of the management perspective and rules of COVID-19 phobia is 0.54 (95% CI [0.45; 0.65], p<0.001). As the phobia of COVID-19 increases, "Management perspective and rules" also increase. Based on this findings, the H2 was accepted. "Co-workers and safety training" predictive power of COVID-19 phobia was 0.57 (95% CI [0.48; 0.69], p<0.001). "Co-workers and safety training" increases as COVID-19 phobia increases. According to this result, hypothesis H3 was accepted. COVID-19 phobia explained 29% of the change in "Management perspective and rules" and 32% of the change in "Co-workers and safety training".

Table 4. Results of the Model Testing the Effect of COVID-19 Phobia on Safety Climate Components

Components			β	SE	p	95%CI		Hypothesis
						Alt	Top	
COVID-19 phobia	--->	Management perspective and rules	0,54	0,09	<0,001	0,45	0,65	Acceptance

COVID-19 phobia	--->	Co-workers and safety training	0,57	0,09	<0,001	0,48	0,69	Acceptance

5. Discussion and Conclusions

The disruptive impacts of COVID-19, coupled with intensified competition and increased globalization, have led to significant changes in the workplace. The emergence of new COVID-19 variants and the presence of unhealthy and insecure working conditions, with the constant risk of infection, have had a detrimental effect on the safety climate within organizations and its relationship with employees. This research purposes to thoroughly investigate and explain the interactions between the concepts of "COVID-19 phobia" and "safety climate" from the perspective of working-life relationships. With a particular emphasis on the effect of safety climate and phobia of COVID-19 on working-life relations, empirical analysis was conducted using data obtained from 386 healthcare workers in Kahramanmaraş, Turkey. This study presents conceptual evaluations regarding “safety climate” and “concern about COVID-19.” Moreover, the research was performed to improve and test the impacts of the employees’ concern about COVID-19 on workplace safety climate through a broad model by the use of literature. The research has been conducted based on the premise that the phobia of COVID-19 will have adverse effect on the safety climate in the workplace, drawing upon the occupational safety climate theory (Zohar, 2010), the Psychological contract theory (Rousseau, 2004), and the Stress-Management Model theory (Lazarus & Folkman, 1984).

The hypothesis that employees' phobia of COVID-19 influence the perception of safety climate (H1) was confirmed throughout the research, and this hypothesis is consistent with existing literature. Zhiqing et al. (2020) found that fear experienced by employees during the COVID-19 outbreak negatively impacts the workplace safety climate, leading to a weakened perception of safety climate and decreased compliance with safety measures. Ong et al. (2021) demonstrated that effective and regular communication in the workplace positively influences the safety climate by reducing employees' fear and anxiety. Providing support, information, and access to up-to-date resources were identified as factors that positively affect the safety climate. Kim and Lee's study (2020) indicated the significance of emotional and social support for employees in coping with phobia of COVID-19 in the workplace. When such support is received, employees exhibit a favorable perception of safety climate and higher adherence to safety measures. Bakker et al. (2021) emphasized that fear and anxiety weaken the workplace safety climate, negatively impacting employee motivation and job performance. These findings align with the research hypothesis, suggesting that employees' phobia of COVID-19 can influence their perception of safety climate, which is consistent with literature.

The hypothesis regarding the influences of employees' phobia of COVID-19 on the perception of safety climate regarding the manager's perspective and rules (H2) was accepted. Kılıç and Güngör (2021) revealed that phobia of COVID-19 can negatively affect the workplace's safety climate perception. Additionally, the study highlighted the significance of the manager's perspective and rules as factors influencing

employees' perception of safety climate. Han and Kim's research (2021) examined the influences of COVID-19 phobia on employees' safety behaviors and perception of safety climate, indicating that executive factors and rules may mediate the relationship between phobia of COVID-19 and perception of safety climate. These studies, along with the literature, support the idea that employees' fears can impact their perception of safety climate, particularly concerning the manager's perspective and rules.

The hypothesis that employees' phobia of COVID-19 impacts the perception of safety climate regarding co-workers and safety training (H3) was accepted. Yazıcı, Şimşek, and İnce's study (2020) demonstrated that phobia of COVID-19 can negatively affect the understanding of safety climate, but the supportive role of co-workers and safety training can mitigate this effect. Similarly, Cho and Lee (2021) found that support from co-workers and reliance on safety training can reduce the relativity between phobia of COVID-19 and perception of safety climate. These studies indicate that colleague support and effective safety training positively influence employees' perception of safety climate by alleviating their phobia of COVID-19. Therefore, the literature supports the notion that employees' phobia of COVID-19 can impact their perception of safety climate regarding co-workers and safety training. Overall, the literature aligns with the hypotheses proposed in the study, highlighting the influence of employees' phobia of COVID-19 on their perception of safety climate in relation to various factors such as the manager's perspective, rules, co-worker support, and training.

The findings of this research add to the the current understanding by equipping it with the necessary information aimed to promote an acceptable level of safety climate among healthcare professionals to minimize the contagion of global health crisis. It also advances the academic literature on the safety climate, especially for healthcare employees who are at the leading edge during COVID-19 pandemics. In addition, the present study has looked at the measures taken in the COVID-19 from a different window, and instead of focusing safety perspectives.

In this research, there are some limitations arising from the natural construct of science, as in all the studies. The most important constraint of this research is its actualization of health employees in the Kahramanmaraş Province in Turkey. Based on this constraint, it is thought that different results may be obtained from researches to be actualized on different universes. The actualization of the study at different regions with different socio-economic characteristics, comparison of the results obtained, and examination through different models by addressing different variables would enlighten different aspects of safety climate and concern about COVID-19. This study employed a quantitative research approach. However, future researchers may find it beneficial to incorporate qualitative research methods in order to gain insights from different perspectives.

We should draw some lessons from this research conducted and in line of its findings. This research focuses on the safety climate as a key area to help support a healthier and safer work environment for employees during COVID-19. Specifically, COVID-19 has brought attention to several critical issues that were previously emphasized by NIOSH, with regards to the workplace of tomorrow and enhancing workforce health, safety, and well-being (Tamers et al., 2020). The pandemic has prompted significant changes in organizational structure, such as the rise in remote work and the growing importance of work-life balance. Moreover, modifications in the physical work environment have necessitated the need for restructuring (Kosydar-Bochenek et al.,

2022). As improved health and safety environments are one of the key areas related to employees' phobia of COVID-19, we need to continue to improve the safety climate of the institutions. The inability to implement of COVID-19 measures and the inability to institution of safe climate at workplaces cause negative factors, such as employees' psychological, social or physical unease and low performance. Given the enterprises and employees, it is required to reduce the concern about COVID-19 and workplace negative safety practices and minimize their effects.

It should be abstained from practices which may increase the dispersion of COVID-19 regarding protection of individuals from risks arising from work environment, their avoidance from dangerous behaviors, and increasing the contribution of the employees for the organization. In case the employees feel that they are working under high safety climate, their tendency for exhibiting a more positive attitude toward the organization and for showing a higher performance will also increase (Çevik Taşdemir, 2020).

The results of this research have significant implications for further investigating the influences of the global health pandemic on organizational health, safety, and employee well-being. One significant implication is the necessity for a comprehensive focus on employee well-being, considering both work-related and non-work-related factors. The phobia of COVID-19 has been found to influence the safety climate within organizations due to the ongoing pandemic. However, this study also highlights the potential for employees to learn and address their needs in order to improve a deeper comprehension of the safety climate.

As part of this study, we are examining the possible effect of enhanced adherence to COVID-19 measures on the safety climate of the workplace. Within this scope, suggestions in the direction of supporting the safety climate, such as providing training for enlightening the employees and raising their awareness regarding COVID-19 measures, are being made for the organizations. There is a relation between COVID-19 and workplace safety climate, and lack of taking sufficient measures for COVID-19 would negatively affect the workplace safety climate and thus might decrease the organizational effectiveness. For this, some policies and methods should be developed and applied. It is suggested for all politicians, lawmakers, industrial unions, executives and the science world consider this subject and develop relevant policies both in macro and micro dimensions.

COVID-19 fear impacts on the perception of the safety climate regarding the manager's perspective and rules may have practical consequences in the workplace. One of them is that managers play a crucial role in addressing employees' phobia of COVID-19. Managers need to understand employees' fears and provide them with the necessary support and information. Additionally, managers should ensure that employees comply with safety measures and encourage them to adhere to these rules. Effective communication between managers and employees is crucial, and managers should offer the social support that employees need. Furthermore, considering the role of training in establishing a safety climate, employees should receive safety training specifically focused on COVID-19 and be provided with up-to-date information.

COVID-19 phobia affecting employees' concept of the safety climate regarding coworkers and safety training suggests that the supportive role of colleagues is crucial. Therefore, it is important to establish social networks that foster solidarity and support among colleagues in the workplace. Effective workplace communication and the provision of safety training are also essential. Reviewing security policies and

procedures, ensuring that employees receive COVID-19 safety training, and sharing updated information can positively influence employees' perception of the safety climate. Additionally, resources such as counseling services, support groups, or mentoring programs can assist employees in expressing their fears and concerns, ultimately improving their perception of the safety climate.

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