

Impact of COVID-19 anxiety on work stress in seafarers: the mediating role of COVID-19 burnout and intention to quit

Ahmet Tuncay Erdem¹, Hasan Tutar²

¹Bolu Abant İzzet Baysal University, Turkey

²Bolu Abant İzzet Baysal University, Affiliated University, Istanbul Commerce University, Turkey

ABSTRACT

Background: The frequent encounters of seafarers with people from different countries compared to other occupations increase their risk of contracting different variants of coronavirus disease 2019 (COVID-19). This risk may cause additional anxiety for them. The main purpose of this research is to determine the mediating role of COVID-19 burnout and intention to quit in the impact of seafarers' anxiety about contracting COVID-19 on work stress.

Materials and methods: The research is a quantitative correlational research design cross-sectional study. We determined the research data according to the random sampling technique. Participants consist of 390 maritime business employees operating in Istanbul and Izmir. We determined the participants based on voluntary participation. We collected the data with the help of the Coronavirus Anxiety Scale, COVID-19 Burnout Scale, Intention to Quit Scale, and Work Stress Perception Scale.

Results: The study found that seafarers' anxiety about contracting the novel coronavirus positively influences their perception of job stress and that COVID-19 burnout and intention to quit strongly mediate this interaction. We also determined that seafarers had a high level of COVID-19 anxiety, leading to a higher perception of COVID-19 burnout.

Conclusions: These findings mean that although personal factors are important, negative psychological perceptions feed off each other and cause another psychological perception. The research results need to be strengthened by psychological factors such as job satisfaction, organizational trust and organizational support, and their psychological resilience should be increased so that seafarers do not show COVID-19 anxiety due to job stress and intention to quit.

(Int Marit Health 2022; 73, 3: 133–142)

Key words: seafarers, novel coronavirus, COVID-19 burnout, intention to quit, work stress

INTRODUCTION

Many seafarers stay on ships for long periods; the crew needs to be changed regularly to avoid excessive fatigue. This translates into a monthly rotation of up to 100,000 seafarers [1]. United Nations Conference on Trade and Development (UNCTAD) expects international maritime trade to grow at an annual average of 3.5% in 2019–2024 [2].

Considering sectoral trends and fleet growth rates, more employment is required to feed the growing fleet in shipping. This situation increases the importance of human resources in maritime transport. Conditions such as working in a humid environment, risk of suffocation, and heavy workload expose workers in the maritime sector to mental, psychological and physical health risks than other occupational groups. All



Assoc. Prof. Ahmet Tuncay Erdem, Bolu Abant İzzet Baysal University, Faculty of Communication, Gököy Campuss Bolu, Turkey, tel/fax: 00905448459110, e-mail: ahmeterdem@ibu.edu.tr

Received: 28.02.2022 Accepted: 5.07.2022

This article is available in open access under Creative Common Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

these severe and risky conditions raise the issue of sustainability in human resources in shipping [3–5]. In addition to prioritizing sustainability in recruitment, placement, and development processes, sustainable human resources management also prioritizes protecting the employed and the employees' psychological health [5–8]. Here, psychological health means complete well-being, psychologically free from all kinds of stress, tension, and burnout.

The number of deaths due to the COVID-19 epidemic has exceeded 18 million. According to worldometers.info data, which immediately follows the subject, the number of people who lost their lives due to COVID-19 is 5,893,061, the number of those who recovered is 346,813,010, and the number of cases is 422,230,030 (February 20, 2022). These numbers increase people's anxiety depending on personal factors such as awareness level and psychological resilience. The continuity of the said anxiety causes work stress in employees, and a new form of burnout called COVID-19 burnout occurs with COVID-19 [5, 6, 9]. Combining all these negativities is an everyday situation that will strengthen the employee's intention to quit. Long journeys, demanding work conditions, a humid environment, sleep disruption, sound vibration, fatigue, and pirate threats contribute to increased work stress [4, 10, 11]. The maritime profession, which contains many difficulties, can cause anxiety, burnout, and work stress. Trait anxiety is one of the most important threats of burnout, and burnout is one of the most important threats to professional continuity [5, 12]. Anxiety, job stress, and burnout may cause employees' interest and motivation to lose their job regardless of their type. A lack of job satisfaction and dissatisfaction may increase their intention to quit.

This study aimed to determine the mediating effect of COVID-19 burnout and intention to quit in the relationship between COVID-19 anxiety and work stress in maritime workers. While doing this, we based the independent variable of the research, "COVID-19 anxiety", on the State and Trait Anxiety Theory developed by Spielberger and Rickman [13]. State anxiety provides strong theoretical support to the research because it reflects the event-specific anxiety frequently experienced during the COVID-19 process, and trait anxiety reflects the anxiety state of the person for the future due to the long duration of the epidemic. We based work stress, the dependent variable of the research, on the work stress model developed by Katz and Kahn. The model is very explanatory for this research, as it explains job stress by considering the working conditions of the employee in the work environment and possible risks [14, 15]. We based the theoretical basis of COVID-19 burnout, one of the study's mediating variables, on the "Burnout Theory" developed by Maslach [16], which claims that the person's emotional energy decreases as the will to cope

with life events weakens. We based the intention to quit, another mediator variable of the research, on the "Planned Behaviour Theory" developed by Ajzen [17]. The theory of planned behaviour provides a strong theoretical basis for this research, as it is a theory that explains the relationships in attitude-behaviour research.

CONCEPTUAL FRAMEWORK NEW TYPE OF CORONAVIRUS ANXIETY

Anxiety causes feelings such as restlessness, anxiety, and fear to become stronger in an individual. Anxiety can be examined in cognitive, behavioural, and affective frameworks [18–20]. As in all attitudes and behaviours, anxiety can be handled in three dimensions: cognitive (do not worry, thinking about irrelevant things, etc.), affective (being nervous, bodily reactions, etc.), and behavioural (insufficient working skills, procrastination, avoidance, etc.) [20, 21]. Anxiety is an indication that an individual is healthy at a certain level and is a guarantee of staying healthy, especially during pandemic days. However, excessive anxiety is a state of being unhealthy and excessive anxiety causes exhaustion in the individual [5–7, 22]. The coronavirus caused the deaths of about 6 million people worldwide, and these deaths increased daily, causing a new form of anxiety called the "new type of coronavirus anxiety". Seafarers who have close contact with those who have contracted the new type of coronavirus and the news about the emergence of different variants in different parts of the world negatively affect seafarers who have close contact with people due to their duties [18, 20].

Decreased social relations to protect themselves from the epidemic may cause psychological problems such as depression, fear of death, anxiety about not getting enough health care, sleep problems, and anxiety. The high level of anxiety may cause the illness to be perceived more negatively and, therefore, its effect on the individual to be more negative [5, 6, 7, 9]. Measures taken due to the COVID-19 outbreak may cause seafarers to increase their state anxiety levels [5, 23]. When people are faced with a dangerous and undesirable situation, their state anxiety levels increase, and the severity of the risk perception affects the level of anxiety. When the stress is intense, an increase in the level of state anxiety is observed, and how these psychological processes are perceived causes another psychological state to emerge, such as burnout and work stress [19, 22, 24, 25]. People who work under the pressure of constant stress lose their job satisfaction and desire to succeed, and their intention to quit becomes stronger.

WORK STRESS

According to Selye [26], stress is a non-specific response produced by various harmful factors. The inability of the individual to meet work demands due to the im-

balance in the perception of the “person-environment” causes stress [24, 27]. On the other hand, job stress is the emotional reaction to disruptive environmental conditions where the employee’s abilities cannot meet the job’s requirements. Work stress occurs due to working and interacting with the environment. Job stress brings additional attention and work effort and thus strains [28, 29]. Job stress brings organizational problems such as job dissatisfaction, stronger intentions to leave, absenteeism, increased workforce turnover rate, poor performance, and error rates when organizational conflicts increase and disruptions occur in jobs [29–31]. Studies have shown that stressful conditions include arriving late and leaving work early, taking long breaks, poor concentration, and an inability to make decisions. The increase in the frequency of accidents in the workplace, organizational conflict, being less creative and innovative, early fatigue, and decreased communication are other negative effects of stress on employees [29, 30].

The risk of infectious disease, time pressure, heavy workload, task complexity, monotonous work, and various obstacles are important work stressors. Role ambiguity and role conflict are role-related stress factors. Role ambiguity, burden, and confusion are stressors [15, 29, 31, 32]. Role load occurs when an employee simultaneously tries to meet the demands of more than one role. Role ambiguity occurs when job expectations are incompatible or conflict with the role definition and it is not always easy to understand what the job entails. In addition, the incompatibility of the employee’s role with his or her abilities is also an important stress factor. Inability to adapt to workplace norms and culture, incompatibility between the characters of the manager, colleagues, and subordinates, and interpersonal conflict in the workplace are relationship-oriented social stressors in organizations. The effect of stress factors on the person determines the extent of his/her burnout perception. In particular, long-term and excessive stress is one of the important causes of burnout [29, 31, 33, 34]. Psychosomatic disorders caused by anxiety, worry, and excessive stress can increase the employee’s perception of burnout and intention to quit the job. Based on this conceptual and theoretical framework, the following H1 hypothesis has been developed.

H1. COVID-19 anxiety positively affects work stress.

COVID-19 BURNOUT

Burnout is generally examined in three dimensions in the literature: emotional exhaustion, depersonalisation, and low sense of personal accomplishment. Emotional exhaustion expresses weariness, loss of energy, loss of power, exhaustion and exhaustion [35, 36]. Depersonalisation is

manifested by negative attitudes towards other people, irritability, withdrawal, and loss of idealism [37–39]. Depersonalisation causes the individual to have negative feelings towards the people he or she works with and act indifferent towards them. A low sense of personal achievement towards work decreases the individual’s sense of achievement and desire to work due to negative experiences. Symptoms such as decreased productivity, loss of talent, poor morale, and inability to cope with stressors are signs of a decreased sense of personal accomplishment [36, 38]. These three dimensions can come together in a certain process and cause the individual’s perception of burnout stronger. Studies on COVID-19 burnout have found a positive relationship between stress and burnout [39, 40].

This new form of burnout, called COVID-19 burnout, has a different structure from the general burnout perception of the pandemic [39, 41, 42]. COVID-19 burnout affects workers, especially in unfavourable working conditions and at risk of death. Maritime workers have a relatively higher perception of burnout associated with loss of emotional, cognitive, and physical energy due to difficult working conditions [44]. Situations such as excessive workload, risk of being infected, fear of infecting their relatives, and witnessing deaths can cause seafarers to be under extreme stress. Research on the relationship between burnout, anxiety, and stress reveals that people experience high levels of burnout during the COVID-19 pandemic. Factors that increase people’s resilience, such as organizational trust and organizational support, play an important role in reducing work stress and the perception of burnout during the pandemic process [9, 39, 40, 44]. Due to the protracted nature of the virus, the fact that people are suffering greatly from burnout related to COVID-19 can strengthen their intention to quit. The following hypotheses have been developed based on this conceptual and theoretical framework.

H2. COVID-19 anxiety positively affects COVID-19 burnout.

H3. COVID-19 burnout positively affects work stress.

INTENTION TO QUIT

Intention to quit is the desire of employees to leave their jobs due to dissatisfaction with their current job conditions [45–47]. The intention to quit is not the employee’s intention to quit the job but the intention and desire to leave the job. Situations such as being laid off or retiring differ from the intention to leave. In order to talk about leaving the job, the employee must have a desire to leave voluntarily due to situations such as burnout, job stress, organizational insecurity, or excessive anxiety [47, 48]. As a result of the employees’ evaluation of the future situation of the organization and their position in this situation, the intention to quit the job develops. In addition, various

studies have shown that the age factor is a factor that increases the intention to quit [49–51]. In addition, working time and personal habits can also affect quitting. An employee who intends to leave will underperform in his or her job and work at a low-performance level. An employee's emotional state accompanies the perception of burnout, such as indifference towards his or her job, insensitivity to colleagues, and low achievement [39, 45]. The intention to quit causes a high turnover rate.

Resignation occurs when the employee changes a unit, department, or position. When voluntary leaving work, motivational factors come to the fore [52–54]. The intention to quit the job arises from the individual's desire to go beyond the social system to which they belong of their free will. Intention to quit is strengthened when employees have low job satisfaction, stress, and burnout perceptions [52, 55]. Intention to quit the job occurs when the employees are not satisfied with the working conditions, which means the loss of qualified labour for the organizations. The high turnover rate brings high costs to the organizations [52, 56]. Loss of organizational memory, deterioration of business planning, loss of a skilled and educated workforce, negative impact on the competitive advantage against competitors, loss of time with recruits, recruitment costs, sadness, stress, conflict with recruits, and disagreements are negative organizational consequences of intention to quit [47, 52]. These results show that negative perceptions affect other psychological moods without ignoring individual differences. The following hypotheses have been developed based on the conceptual and theoretical framework.

H4. The intention to quit positively affects job stress.

H5. COVID-19 anxiety positively affects the intention to quit.

H6. Intention to quit and COVID-19 burnout plays a mediating role in the effect of COVID-19 anxiety on work stress.

MATERIALS AND METHODS

PURPOSE OF RESEARCH

The main purpose of this research is to determine whether the intention to quit and COVID-19 burnout function as mediating variables in the effect of COVID-19 anxiety on employees' job stress in maritime enterprises. The necessity of evaluating the research variables together, as explained above, is that there is a gap in the literature in this field, and the topic needs to be up-to-date, original, and functional. We think that the research can contribute to the literature in this respect.

PARTICIPANTS AND SAMPLING

We collected research data from the employees of maritime companies operating in the maritime sector in Istanbul and Izmir (Turkey). The sample determined according to the

random sampling method in the research includes 390 employees. We chose many individuals or units to represent a part (sample) of the population with the random sampling method, as it allows individuals to be randomly determined from the population with a technique where everyone has an equal chance of being selected in this technique [57].

DATA COLLECTION INSTRUMENTS

In the study, we used three different scales to collect data. The first is the COVID-19 Anxiety Scale consisting of 5 items developed by Lee (2020) [58]. With this scale, we collected data on COVID-19 anxiety. Another scale is the 10-item COVID-19 Burnout Scale developed by Yıldırım and Solmaz (2020) [9]. With this scale, we collected data on COVID-19 burnout. We collected data on the participants' desire to quit their job with the 4-item Intention to Leave Scale developed by Hom et al. (1984) [59]. We collected data on job stress with the 14-item Job Stress Scale developed by Demiral et al. (2007) [60].

MODEL OF MEASUREMENT AND HYPOTHESES

In the hypothetical research model, we hypothesized that intention to quit and COVID-19 burnout would mediate the effect of COVID-19 anxiety on job stress. In the model, we constructed COVID-19 anxiety as the independent variable, the intention to quit work as the dependent variable, and work stress and COVID-19 burnout as mediator variables (Fig. 1).

VALIDITY AND RELIABILITY OF RESEARCH

Within the scope of the research, the reliability values of the scales; COVID-19 anxiety scale were determined as $\alpha = 0.906$, COVID-19 burnout $\alpha = 0.956$, intention to quit work $\alpha = 0.789$, and job stress scale $\alpha = 0.948$. In order to determine the reliability and validity of the scale expressions in the research model, we performed confirmatory factor analysis on the measurement model (Fig. 2). According to the confirmatory factor analysis result, the fit indices χ^2/DF , GFI, NFI, CFI, TLI and RMSEA values, good fit indices and validity values are shown in Table 1 [61–64].

It is seen that the χ^2 value is significant according to the four-factor model in Table 1 ($p < 0.01$). In addition, since the χ^2/DF value (2,141) is below 5, the model provides the criterion of fit in terms of validity. The data are concordant in terms of GFI = 0.894, CFI = 0.945, NFI = 0.902, TLI = 0.940, and RMSEA = 0.054 (Table 1). As a result of confirmatory factor analysis, we applied the "Chi-Square Difference Test" to determine whether there is a significant difference in terms of the fit between the four-factor model (COVID-19 anxiety, COVID-19 burnout, intention to quit, and job stress) and the single-factor model. We found that the difference between the χ^2 values of the test was

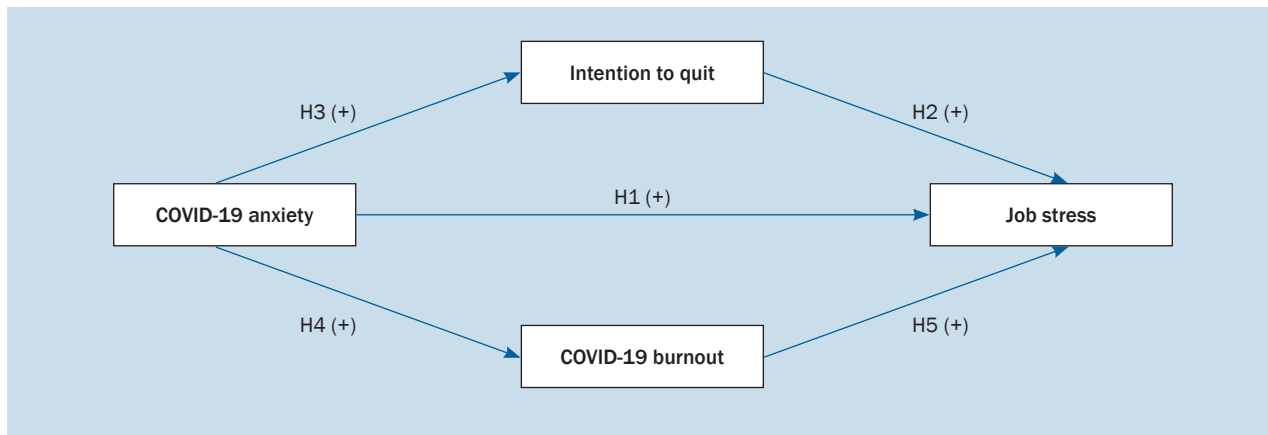


Figure 1. Research model

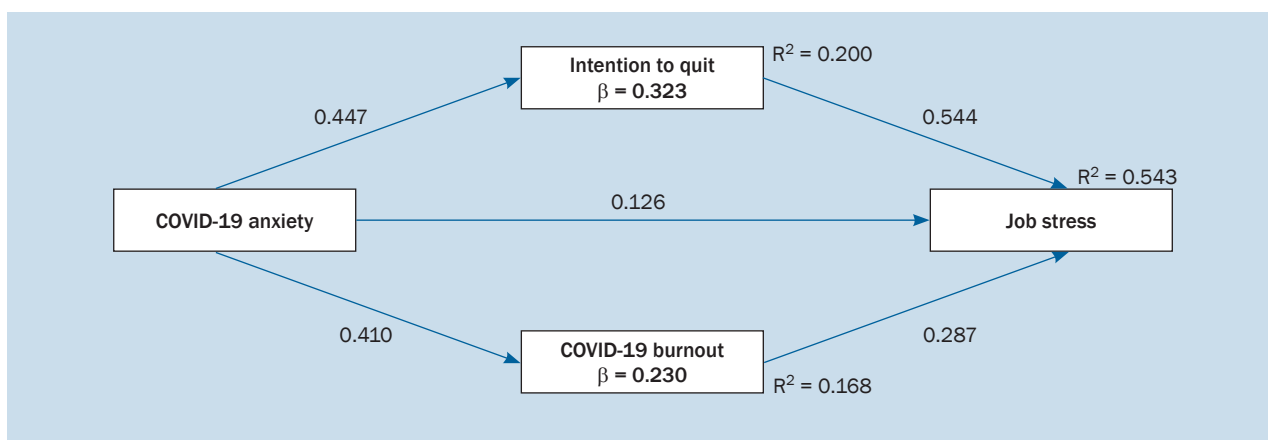


Figure 2. Structural equation model results

Table 1. Model-data fit values (resources: [61–64])

Data-model fit indices	Acceptable indices	Single factor model indices
Chi-Square (χ^2) = 1036,41		Chi-Square (χ^2) = 4263,45
DF (Degree of Freedom) = 484, p < 0.01		DF = 495
GFI (Goodness of Fit) = 0.894	GFI > 0.90	GFI = 0.410
NFI (Normal Fit Index) = 0.902	NFI > 0.90	NFI = 0.596
CFI (Comparative Fit Index) = 0.945	CFI > 0.90	CFI = 0.624
TLI (Tucker-Lewis Index) = 0.940	TLI > 0.90	TLI = 0.599
RMSEA (Root Mean Square Error of Approximation) = 0.054	RMSEA < 0.08	RMSEA = 0.140
$\chi^2/DF = 2.141$	$\chi^2/DF < 5$	$\chi^2/DF = 8.613$

significant (Table 1). This finding determined no common method deviation in the data [64]. According to this finding, the data from the four-factor model is compatible [65, 66]. The findings also show that the model provides divergent and convergent discriminant validity (Table 2).

For the data obtained in the scales, we specified convergent validity according to the average explained vari-

ance (AVE) values [67]. The fact that the AVE values of the research model are higher than 0.5 indicates that the relevant items are valid in terms of implicit variables. As seen in Table 2, AVE values higher than 0.5 indicate that convergent validity is provided [65, 66]. In order to determine the discriminant validity, the correlation value between the scales must be less than 0.80, which indicates that

Table 2. Average, standard deviation (SD), reliability and correlation values of the variables

Variables	Mean	SD	CR	AVE	MSV	MaxR (H)	1	2	3	4
COVID-19 anxiety	3.64	0.935	0.899	0.640	0.256	0.905	–			
COVID-19 burnout	3.80	0.988	0.957	0.689	0.349	0.959	0.410**	–		
Intention to quit	3.79	0.833	0.799	0.504	0.216	0.824	0.447**	0.455**	–	
Job stress	3.85	0.820	0.950	0.578	0.281	0.956	0.468**	0.563**	0.702**	–

*Significant at 0.05 level (bi-directional); **Significant at 0.01 level (bi-directional); AVE – average explained variance; CR – composite reliability; MaxR (H) – maximal reliability; MSV – maximum shared variance

Table 3. Direct effects

Variables	β	t	SE	P
COVID-19 anxiety – Job stress	0.126	3.056	0.035	0.002
Intention to quit – Job stress	0.544	4.190	0.036	***
COVID-19 anxiety – Intention to quit	0.447	9.847	0.040	***
COVID-19 anxiety – COVID-19 burnout	0.410	8.870	0.049	***
COVID-19 burnout – Job stress	0.287	7.645	0.030	***

SE – standard error; *0.05; **0.01; ***significant at the 0.001 level (bi-directional)

divergent discriminant validity is provided [67]. Divergent discriminant validity is provided if the correlation values are lower than 0.80 and the significant relationship.

The standardized factor loads of the scale expressions used to collect data ranged from 0.51 to 0.86. The standardized factor loads of the study are greater than 0.5. In addition, the fact that the parametric test *t* values, which are among these factor values, vary between 8,307 and 13,714 shows that the research model is compatible. Table 2 shows a positive correlation between COVID-19 anxiety and COVID-19 burnout based on Pearson correlation analysis ($r = 0.410$, $p = 0.001$). We determined a positive correlation between COVID-19 anxiety and intention to quit ($r = 0.447$, $p < 0.001$). We discovered a link between COVID-19 anxiety and work stress ($r = 0.468$, $p = 0.001$). There is a positive correlation between COVID-19 burnout and intention to quit ($r = 0.455$, $p < 0.001$). There is a positive relationship between COVID-19 burnout and work stress ($r = 0.563$, $p < 0.001$). There is a link between the intention to quit and job stress ($r = 0.702$, $p = 0.001$). Correlation values show that there is a significant relationship between the variables.

RESULTS

DEMOGRAPHIC FINDINGS

According to the participants' demographic information, such as gender, education level, age, and seniority, 13% were female, and 87% were male. According to their marital status, 37% of the participants were single, and 63% were married. 30% of the participants were in the 36–45 age

range. When the distribution by education level is examined, 35.6% of the participants are primary school graduates, 38.3% are undergraduates, 18.5% are graduates, and 7.6% are doctoral graduates.

TESTING RESEARCH HYPOTHESES

Table 3 shows the results of the structural equation model applied to the research data to test the research hypotheses.

Table 3, shows that COVID-19 anxiety has a positive and significant effect on work stress ($\beta = 0.126$, $t = 3.056$, $p = 0.002 < 0.01$). This means that the H1 hypothesis is confirmed. We found that COVID-19 anxiety positively and significantly affects COVID-19 burnout ($\beta = 0.410$, $t = 8.870$, $p < 0.001$). This result means that the H2 hypothesis is confirmed. We found a positive and significant effect of COVID-19 burnout on work stress ($\beta = 0.287$, $t = 7.645$, $p < 0.001$).

According to this determination, it is understood that the H3 hypothesis of the research is supported. According to the analysis results, the intention to quit positively and significantly affects job stress ($\beta = 0.544$, $t = 14.190$, $p < 0.001$). We also determined the positive and significant effect of COVID-19 anxiety on the intention to quit ($\beta = 0.447$, $t = 9.847$, $p < 0.001$). These results mean that the H4 and H5 hypotheses of the study were confirmed.

In this analysis, the parameters to be considered in order to determine the mediation effect are direct effect ($\beta = 0.126$) and total ($\beta = 0.487$) values. When the intermediary variables, intention to quit and COVID-19 burnout,

Table 4. Structural equation model significance (Bootstrap) values

	β	LLCI	ULCI
Direct effect			
Intention to quit – Job stress	0.544	–	–
COVID-19 anxiety – COVID-19 burnout	0.410	–	–
COVID-19 anxiety – Intention to quit	0.447	–	–
COVID-19 burnout – Job stress	0.287	–	–
COVID-19 anxiety – Job stress	0.126	–	–
Indirect effect			
COVID-19 anxiety – Intention to quit – COVID-19 burnout – Job stress	0.361	0.246	0.473
Total effect			
COVID-19 anxiety – Job stress	0.487	–	–

LLCI – lower limit confidence interval; ULCI – upper limit confidence interval

are included in the model, they increase the effect of the independent variable on the dependent variable (Table 4).

According to the findings, when the intention to quit work and COVID-19 burnout are included in the model, there is a significant increase in the total effect of COVID-19 anxiety on work stress. We performed the significance analysis using the Bootstrap method at a confidence level of 95%. According to Table 4, intention to quit and COVID-19 burnout mediate in the same model with the lowest 24.6% (lower limit of confidence interval: 0.246) and the highest 47.3% (upper limit of confidence interval: 0.473). The positive values indicate that the mediating effect of the assumed model is significant. It causes a positive increase in the 95% confidence interval (CI) for the mediating effect of intention to quit and COVID-19 burnout and a 36% (0.361) increase in the impact of COVID-19 anxiety on job stress ($\beta = 0.361$; 95% CI [0.246 and 0.473]; $R^2 = 0.543$). According to this finding, the H6 hypothesis states that intention to quit and COVID-19 burnout function as a tool in the effect of COVID-19 anxiety on work stress were accepted.

DISCUSSION

In this study, we aimed to examine the “mediator” role of intention to quit and COVID-19 burnout in the effect of COVID-19 anxiety on work stress in a sample of maritime businesses. Research findings have determined that the high-risk working environment, uncertainty, and unfavourable hygiene conditions during the pandemic strengthen seafarers' perceptions of anxiety, work stress, and burnout. We discovered that all these negative perceptions strengthen the intention of maritime business employees to leave their jobs. We have determined that COVID-19 anxiety increases work stress, and COVID-19 burnout and the intention to quit work are

mediators in this interaction process. Research findings show that COVID-19 anxiety, work stress, and COVID-19 burnout reinforce perceptions and the intention to quit. These findings indicate that the pandemic's unfavourable psychological climate in maritime businesses leads to negative perceptions of interrelated variables such as COVID-19 anxiety, COVID-19 burnout, job stress, and intention to quit.

The perception of burnout from COVID-19 differs from the general burnout perception and the pandemic in terms of its cause and results [9]. COVID-19 burnout occurs not for many reasons but due to the pandemic, and when combined with anxiety and stress, Seafarers encountering people from different parts of the world at risk of carrying different virus variants may cause their anxiety levels and perceptions of burnout to be relatively high [43, 68]. In addition to the risk of disease transmission, people's anxiety about losing their jobs during the pandemic strengthens their perception of burnout. It significantly increases their depression, anxiety, and stress levels [9]. In the literature, it is stated that negative emotions such as helplessness, insecurity, fear and anxiety due to COVID-19 may cause death anxiety to increase the stress level in individuals, and this may lead to burnout in individuals [69–71]. Studies show that high levels of anxiety in employees cause job stress to be perceived more negatively [5, 6, 7, 22, 29]. In addition, studies have determined that factors that increase the psychological resilience of individuals, such as organizational trust and organizational support, play an important role in reducing work stress and burnout perception during the pandemic process [9, 40].

LIMITATIONS OF THE STUDY

This research is limited to examining whether there are mediator effects of intention to quit and COVID-19 burn-

out on the effect of COVID-19 anxiety on job stress. This quantitative research is limited to seafarers working in Istanbul Marine Enterprises. The research can be repeated in different samples with other organizational behaviour variables. In addition, the research can also examine whether it functions as a regulatory variable in the relationship established with COVID-19 burnout and intention to quit. In order to better understand the research subject, it can be repeated with different samples using qualitative and mixed research methods.

CONCLUSIONS

The psychological climate is important for seafarers to work with high performance and strong motivation. It is seen that there is a consensus in the literature that the variables are negative organizational behaviours in studies on subjects such as anxiety, work stress, and burnout. On the other hand, it is known that these negative situations strengthen the intention to quit the job. A study on the subject determined that the COVID-19 epidemic increased employees' anxiety, work stress, and depression [72]. In their research on teachers, Klassen and Chiu [73] determined that leaving their job strengthens their job stress. Deniz Günaydın [74] determined that individuals' fears of COVID-19 cause them to stay away from the organization, and this anxiety strengthens their intention to quit their jobs. Kokubun et al. [75], in a study conducted at a Japanese company in China, determined that employees' fears and concerns about COVID-19 increased their intention to quit, and Japanese employees were more likely to quit their jobs because of this fear and anxiety. Sunjaya et al. [76], in their study in Indonesia, determined that healthcare workers who have direct contact and responsibility for treating COVID-19 patients have a higher risk of experiencing depressive symptoms, anxiety, and burnout. Luceño-Moreno et al. [77]. In their study in the health sector in Spain, determined that the COVID-19 pandemic increased the perceptions of anxiety, stress, and burnout and strengthened their intention to quit. In their research, Dima et al. [78] determined that the pandemic caused work stress and burnout. Yıldırım and Solmaz [9] determined that individuals' COVID-19 burnout strengthens stress in their research in Turkey. All these findings show that the results of our research are in line with the literature.

Conflict of interest: None declared

REFERENCES

- https://www.ilo.org/ankara/areas-of-work/covid-19/WCMS_743420/lang-tr/index.htm (Access date 01.12. 2022).
- <https://unctad.org/> (Access date 01.12. 2022).
- Bates R. Improving human resources for health planning in developing economies. Human Resource Development International. 2013; 17(1): 88–97, doi: [10.1080/13678868.2013.857509](https://doi.org/10.1080/13678868.2013.857509).
- Oldenburg M, Baur X, Schlaich C. Occupational risks and challenges of seafaring. *J Occup Health*. 2010; 52(5): 249–256, doi: [10.1539/joh.k10004](https://doi.org/10.1539/joh.k10004), indexed in Pubmed: [20661002](https://pubmed.ncbi.nlm.nih.gov/20661002/).
- Torales J, O'Higgins M, Castaldelli-Maia JM, et al. The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Soc Psychiatry*. 2020; 66(4): 317–320, doi: [10.1177/0020764020915212](https://doi.org/10.1177/0020764020915212), indexed in Pubmed: [32233719](https://pubmed.ncbi.nlm.nih.gov/32233719/).
- Taylor S. The psychology of pandemics: Preparing for the next global outbreak of infectious disease. Cambridge Scholars Publishing. 2019. <https://www.cambridgescholars.com/download/sample/65716>.
- Liu N, Zhang F, Wei C, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Res*. 2020; 287: 112921, doi: [10.1016/j.psychres.2020.112921](https://doi.org/10.1016/j.psychres.2020.112921), indexed in Pubmed: [32240896](https://pubmed.ncbi.nlm.nih.gov/32240896/).
- Esen D. Sürdürülebilir İnsan Kaynakları Yönetimine Genel Bir Bakış. *Journal of Current Researches on Business and Economics*. 2018; 8(1): 85–104.
- Yıldırım M, Solmaz F. COVID-19 burnout, COVID-19 stress and resilience: Initial psychometric properties of COVID-19 Burnout Scale. *Death Stud*. 2022; 46(3): 524–532, doi: [10.1080/07481187.2020.1818885](https://doi.org/10.1080/07481187.2020.1818885), indexed in Pubmed: [32915702](https://pubmed.ncbi.nlm.nih.gov/32915702/).
- Kum S, Boşnak T. A qualitative study on nutrition of turkish seafarers. *J ETA Maritime Science*. 2016; 4(2): 135–147, doi: [10.5505/jems.2016.20591](https://doi.org/10.5505/jems.2016.20591).
- Slišković A, Penezić Z. Descriptive study of job satisfaction and job dissatisfaction in a sample of Croatian seafarers. *Int Marit Health*. 2015; 66(2): 97–105, doi: [10.5603/IMH.2015.0023](https://doi.org/10.5603/IMH.2015.0023), indexed in Pubmed: [26119680](https://pubmed.ncbi.nlm.nih.gov/26119680/).
- Weinborn R, Bruna B, Calventus J, et al. Burnout syndrome prevalence in veterinarians working in Chile. *Austral J Vet Sci*. 2019; 51(2): 91–99, doi: [10.4067/s0719-81322019000200091](https://doi.org/10.4067/s0719-81322019000200091).
- Spielberger CD, Rickman RL. Assessment of state and trait anxiety. *Anxiety: psychobiological and clinical perspective*. Hemisphere Publishing Corporation, London 1990.
- Bliese P, Jex S, Halverson R. Integrating multilevel analyses and occupational stress theory: historical and current perspectives on stress and health. *Research in Occupational Stress and Well Being*. 2002: 217–259, doi: [10.1016/s1479-3555\(02\)02006-1](https://doi.org/10.1016/s1479-3555(02)02006-1).
- Jex SM, Britt TW. *Organizational Psychology: A Scientist Practitioner Approach*. 2nd Edition. John Wiley & Sons, New Jersey 2008: 2008.
- Maslach C. *Burnout: The Cost of Caring*. ISHK, Cambridge 2003.
- Ajzen I. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 1991; 50(2): 179–211, doi: [10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t).
- Han HR. Measuring anxiety in children: a methodological review of the literature. *Asian Nursing Research*. 2009; 3(2): 49–62, doi: [10.1016/s1976-1317\(09\)60016-5](https://doi.org/10.1016/s1976-1317(09)60016-5).
- Spielberger C, Reheiser E. Assessment of emotions: anxiety, anger, depression, and curiosity. *Applied Psychology: Health and Well-Being*. 2009; 1(3): 271–302, doi: [10.1111/j.1758-0854.2009.01017.x](https://doi.org/10.1111/j.1758-0854.2009.01017.x).
- Elliott CH, Smith LL. *Overcoming anxiety for dummies*. Indiana: Wiley Publishing, Indianapolis 2010.
- Zeidner M, Matthews G. Evaluation anxiety. In Elliot AJ, Dweck CS (Eds) *Handbook of Competence and Motivation*. Guilford Press, London 2005.
- Zhao A, Guo Y, Dynia J. Foreign language reading anxiety: Chinese as a foreign language in the United States. *Modern Language J*. 2013; 97(3): 764–778, doi: [10.1111/j.1540-4781.2013.12032.x](https://doi.org/10.1111/j.1540-4781.2013.12032.x).
- Dikmen AU, Kına M, Özkan S, et al. COVID-19 epidemiyolojisi: pandemiden ne öğrendik. *J Biotech Strategic Health Res*. 2020, doi: [10.34084/bshr.715153](https://doi.org/10.34084/bshr.715153).

24. Yan H, Xie S. How does auditors' work stress affect audit quality? Empirical evidence from the Chinese stock market. *China J Acc Res*. 2016; 9(4): 305–319, doi: [10.1016/j.cjar.2016.09.001](https://doi.org/10.1016/j.cjar.2016.09.001).
25. Çırakoğlu OC. Domuz Gribi (H1N1) salgınıyla ilişkili algıların, kaygı ve kaçınma düzeyi değişkenleri bağlamında incelenmesi. *Türk Psikol Dergisi*. 2011; 26(67): 9–64.
26. Selye H. *Stress in health and disease*. Butterworth-Heinemann: 2013.
27. Holmlund-Rytkönen M, Strandvik T. Stress in business relationships. *J Business Industrial Marketing*. 2005; 20(1): 12–22, doi: [10.1108/08858620510576757](https://doi.org/10.1108/08858620510576757).
28. Chen J, Silverthorne C. The impact of *locus* of control on job stress, job performance and job satisfaction in Taiwan. *Leadership Organization Development J*. 2008; 29(7): 572–582, doi: [10.1108/01437730810906326](https://doi.org/10.1108/01437730810906326).
29. Choudhury K. *Managing Workplace Stress: Cognitive Behavioral Way*. Springer, Kolkata, India 2013.
30. Cranwell-Ward J, Abbey A. *Organizational Stress*. Palgrave Macmillan, New York, NY 2005.
31. Sutherland VJ, Cooper CL. *Strategic Stress Management: an Organisational Approach*. Macmillan, Basingstoke 2000.
32. O'driscoll MP, Brough P. Work Organisation and Health, *Occupational Health Psychology*, Ed. Stavroula Leka, Jonathan Houdmont. Wiley-Blackwell., United Kingdom 2010: 57–86.
33. Landy FJ, Conte JM. *Work in the 21st Century – an Introduction to Industrial and Organizational Psychology*. John Wiley & Sons, Baski, Hoboken, NJ 2013.
34. Quick JC, Henderson DF. Occupational Stress: Preventing Suffering, Enhancing Wellbeing. *Int J Environ Res Public Health*. 2016; 13(5): 459, doi: [10.3390/ijerph13050459](https://doi.org/10.3390/ijerph13050459), indexed in Pubmed: [27136575](https://pubmed.ncbi.nlm.nih.gov/27136575/).
35. Arslan G, Yıldırım M. Okulda Mutluluğun Ölçülmesi ve Desteklenmesi. In: Arslan G, Yıldırım M (Eds), *Okulda Pozitif Psikoloji: Kuramdan Uygulamaya* (pp. 5-15). 2021 Pegem Akademi. <https://doi.org/10.14527/9786257676977>.
36. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol*. 2001; 52: 397–422, doi: [10.1146/annurev.psych.52.1.397](https://doi.org/10.1146/annurev.psych.52.1.397), indexed in Pubmed: 11148311.
37. Maslach C, Goldberg J. Prevention of burnout: New perspectives. *Applied and Preventive Psychology*. 1998; 7(1): 63–74, doi: [10.1016/S0962-1849\(98\)80022-X](https://doi.org/10.1016/S0962-1849(98)80022-X).
38. Fabio P, Stefania S, Elisabetta T, et al. Public health and burnout: a survey on lifestyle changes among workers in the healthcare sector. *Acta Biomed*. 2019; 90(1): 24–30.
39. Sung CW, Chen CH, Fan CY, et al. Burnout in medical staffs during a coronavirus disease (COVID-19) pandemic. *SSRN Electronic J*. 2020, doi: [10.2139/ssrn.3594567](https://doi.org/10.2139/ssrn.3594567).
40. Morgantini LA, Naha U, Wang H, et al. Factors contributing to healthcare professional burnout during the COVID-19 pandemic: a rapid turnaround global survey. *MedRxiv*. 2020, doi: [10.1101/2020.05.17.20101915](https://doi.org/10.1101/2020.05.17.20101915), indexed in Pubmed: [32511501](https://pubmed.ncbi.nlm.nih.gov/32511501/).
41. Griffith AK. Parental burnout and child maltreatment during the COVID-19 pandemic. *J Fam Violence*. 2022; 37(5): 725–731, doi: [10.1007/s10896-020-00172-2](https://doi.org/10.1007/s10896-020-00172-2), indexed in Pubmed: [32836736](https://pubmed.ncbi.nlm.nih.gov/32836736/).
42. Yıldırım M. Mediating role of resilience in the relationships between fear of happiness and affect balance, satisfaction with life, and flourishing. *Eur J Psychol*. 2019; 15(2): 183–198, doi: [10.5964/ejop.v15i2.1640](https://doi.org/10.5964/ejop.v15i2.1640), indexed in Pubmed: [33574950](https://pubmed.ncbi.nlm.nih.gov/33574950/).
43. Holland JM, Neimeyer RA. Reducing the risk of burnout in end-of-life care settings: the role of daily spiritual experiences and training. *Palliat Support Care*. 2005; 3(3): 173–181, doi: [10.1017/S1478951505050297](https://doi.org/10.1017/S1478951505050297), indexed in Pubmed: [16594456](https://pubmed.ncbi.nlm.nih.gov/16594456/).
44. Costa BRC, Pinto I. Cristina *Jornalo Freire*. Stress, Burnout and Coping in Health Professionals: A Literature Review. *J Psychology Brain Studies*. 2017: 1–8.
45. Fong YL, Mahfar M. Relationship between occupational stress and turnover intention among employees in a furniture manufacturing company in Selangor. *Jurnal Teknologi*. 2013; 64(1), doi: [10.11113/jt.v64.1673](https://doi.org/10.11113/jt.v64.1673).
46. Yıldırım MH, Erul EE, Kelebek P. Tükenmişlik ile İşten Ayrılma Niyeti Arasındaki İlişki Banka Çalışanları Üzerine Bir Araştırma. *Organizasyon ve Yönetim Bilimleri Dergisi*. 2014; 6(1): 34–44.
47. Polat M, Meydan HC. Örgütsel özdeşleşmenin sizim ve işten ayrılma niyeti ile ilişkisi üzerine bir araştırma. *KHO Savunma Bilimleri Enstitüsü Dergisi*. 2010; 9(1): 145–172.
48. Yousaf A, Sanders K, Abbas Q. Organizational/occupational commitment and organizational/occupational turnover intentions. *Personnel Review*. 2015; 44(4): 470–491, doi: [10.1108/pr-12-2012-0203](https://doi.org/10.1108/pr-12-2012-0203).
49. Lewis G. Turnover and the quiet crisis in the federal civil service. *Public Administration Review*. 1991; 51(2): 145, doi: [10.2307/977108](https://doi.org/10.2307/977108).
50. Schaufeli W, Bakker A. Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *J Organizational Behavior*. 2004; 25(3): 293–315, doi: [10.1002/job.248](https://doi.org/10.1002/job.248).
51. Khanin D. How to reduce turnover intentions in the family business: Managing centripetal and centrifugal forces. *Business Horizons*. 2013; 56(1): 63–73, doi: [10.1016/j.bushor.2012.09.005](https://doi.org/10.1016/j.bushor.2012.09.005).
52. Bibby CL, Should I. Stay or leave? Perceptions of age discrimination, organizational justice and employee attitudes on intentions to leave. *J Applied Management Entrepreneurship*. 2008; 13(2): 63–86.
53. Özyer K, Azizoğlu O. Demografik Değişkenlerin Kişilerin Etik Tutumları Üzerindeki Etkileri, *Ekonomik ve Sosyal Araştırmalar Dergisi*. Cilt:6, Yıl:6, Sayı:2, 6. 2010: 59–84.
54. Çetin A, Güleç R, Kayasandık A. Etik iklim algısının çalışanların işten ayrılma niyetine etkisi: tükenmişliğin aracı değişken rolü. *EJOVOC Electronic Journal of Vocational Colleges*. 2015; 5(2): 18, doi: [10.17339/ejovoc.18657](https://doi.org/10.17339/ejovoc.18657).
55. Cho S, Johanson M, Guhait P. Employees intent to leave: A comparison of determinants of intent to leave versus intent to stay. *Int J Hospitality Management*. 2009; 28(3): 374–381, doi: [10.1016/j.ijhm.2008.10.007](https://doi.org/10.1016/j.ijhm.2008.10.007).
56. Özcan DE, Vardarlier P, Karabay EM, et al. Liderliğin örgütsel vatandaşlık davranışı ve işten ayrılma niyeti üzerindeki etkisinde güvenin rolü. *Öneri*. 2012; 10(37): 1–13.
57. Tutar H, Erdem AT. Örnekleriyle bilimsel araştırma yöntemleri ve SPSS uygulamaları. Seçkin Yayıncılık, Ankara 2020.
58. Lee SA. Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Stud*. 2020; 44(7): 393–401, doi: [10.1080/07481187.2020.1748481](https://doi.org/10.1080/07481187.2020.1748481), indexed in Pubmed: [32299304](https://pubmed.ncbi.nlm.nih.gov/32299304/).
59. Hom P, Griffeth R, Sellaro C. The validity of mobley's (1977) model of employee turnover. *Organizational Behavior and Human Performance*. 1984; 34(2): 141–174, doi: [10.1016/0030-5073\(84\)90001-1](https://doi.org/10.1016/0030-5073(84)90001-1).
60. Demiral Y, Ünal B, Kılıç B, et al. İş stresi ölçeğinin İzmir Konak Belediyesi'nde çalışan erkek işçilerde geçerlik ve güvenilirliğinin incelenmesi. *Toplum Hekimliği Bülteni*, 26(1). 2007; 26(1): 11–18.
61. Schumacker RE, ve Lomax RG. *A Beginner's Guide to. Structural Equation Modeling*. 3rd Ed. Taylor & Francis Group, New York 2010.
62. Wang J, ve Wang X. *Structural equation modeling: Applications using Mplus*. John Wiley & Sons. 2019.
63. Munro BH. *Statistical methods for health care research*. Vol. 1. Williams & Wilkins, Lippincott 2005.

64. Fornell C, Larcker D. Evaluating structural equation models with unobservable variables and measurement error. *J Marketing Res.* 1981; 18(1): 39, doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
65. MacKenzie S, Podsakoff P. Common method bias in marketing: causes, mechanisms, and procedural remedies. *J Retailing.* 2012; 88(4): 542–555, doi: [10.1016/j.jretai.2012.08.001](https://doi.org/10.1016/j.jretai.2012.08.001).
66. Tutar H, Erdem AT. Examining the mediating role of organizational loneliness in the effect of organizational silence on the intention to quit. *Upravenets.* 2021; 12(2): 102–118, doi: [10.29141/2218-5003-2021-12-2-8](https://doi.org/10.29141/2218-5003-2021-12-2-8).
67. Kline RB. Principles and practice of structural equation modeling. Guilford Publications 2015.
68. Orgilés M, Morales A, Delvecchio E, et al. Immediate psychological effects of the COVID-19 quarantine in youth from Italy and Spain. *Front Psychol.* 2020; 11: 579038, doi: [10.3389/fpsyg.2020.579038](https://doi.org/10.3389/fpsyg.2020.579038), indexed in Pubmed: [33240167](https://pubmed.ncbi.nlm.nih.gov/33240167/).
69. Dağlı DA, Büyükbayram A, Arabacı IB. COVID-19 tanısı alan hasta ve ailesine psikososyal yaklaşım. *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 5(2); 2020: 191–195.
70. Çelik MY. Üniversite Sınavına Hazırlanan Gençlerin Covid-19 Korkusunun Öğrencilerin Tükenmişlik ve Anksiyetelerine Etkisi. *Van Sag Bil Derg.* 2021; 14(1): 19–28, doi: [10.52976/vansaglik.760062](https://doi.org/10.52976/vansaglik.760062).
71. Rahman S. Tıp fakültesi öğrencilerinin COVID-19 fobi durumlarının değerlendirilmesi. *Fırat Üniversitesi Sağlık Bilimleri Tıp Dergisi.* 2021; 35(1): 68–73.
72. Elbay RY, Kurtulmuş A, Arpacıoğlu S, et al. Depression, anxiety, stress levels of physicians and associated factors in Covid-19 pandemics. *Psychiatry Res.* 2020; 290: 113130, doi: [10.1016/j.psychres.2020.113130](https://doi.org/10.1016/j.psychres.2020.113130), indexed in Pubmed: [32497969](https://pubmed.ncbi.nlm.nih.gov/32497969/).
73. Klassen R, Chiu M. The occupational commitment and intention to quit of practicing and pre-service teachers: Influence of self-efficacy, job stress, and teaching context. *Contemporary Educational Psychology.* 2011; 36(2): 114–129, doi: [10.1016/j.cedpsych.2011.01.002](https://doi.org/10.1016/j.cedpsych.2011.01.002).
74. Deniz Günaydin H. Impacts of personality on job performance through COVID-19 fear and intention to quit. *Psychol Rep.* 2021; 124(6): 2739–2760, doi: [10.1177/003329412111040433](https://doi.org/10.1177/003329412111040433), indexed in Pubmed: [34396815](https://pubmed.ncbi.nlm.nih.gov/34396815/).
75. Kokubun K, Ino Y, Ishimura K. Social and psychological resources moderate the relation between anxiety, fatigue, compliance and turnover intention during the COVID-19 pandemic. *International Journal of Workplace Health Management.* 2022; 15(3): 262–286, doi: [10.1108/ijwhm-07-2021-0142](https://doi.org/10.1108/ijwhm-07-2021-0142).
76. Sunjaya DK, Herawati DM, Siregar AYM. Depressive, anxiety, and burnout symptoms on health care personnel at a month after COVID-19 outbreak in Indonesia. *BMC Public Health.* 2021; 21(1): 227, doi: [10.1186/s12889-021-10299-6](https://doi.org/10.1186/s12889-021-10299-6), indexed in Pubmed: [33509159](https://pubmed.ncbi.nlm.nih.gov/33509159/).
77. Luceño-Moreno L, Talavera-Velasco B, García-Albuérne Y, et al. Symptoms of posttraumatic stress, anxiety, depression, levels of resilience and burnout in Spanish health personnel during the COVID-19 pandemic. *Int J Environ Res Public Health.* 2020; 17(15), doi: [10.3390/ijerph17155514](https://doi.org/10.3390/ijerph17155514), indexed in Pubmed: [32751624](https://pubmed.ncbi.nlm.nih.gov/32751624/).
78. Dima G, Schmitz LM, Şimon MC. Job stress and burnout among social workers in the VUCA world of COVID-19 pandemic. *Sustainability.* 2021; 13(13): 7109, doi: [10.3390/su13137109](https://doi.org/10.3390/su13137109).