



GEMİ İNSANLARINDA İŞ STRESİNİN İŞTEN AYRILMA NİYETİNE ETKİSİNDE, İŞ AİLE ÇATIŞMASININ VE LİDER ÜYE ETKİLEŞİMİNİN ROLÜ¹

Murat YORULMAZ

muratyor@gmail.com
0000-0002-5736-9146

Sinem KAYA

sinemkaya2021@gmail.com
0000-0001-9352-8979

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THE ROLE OF WORK-FAMILY CONFLICT AND LEADER-MEMBER EXCHANGE ON THE EFFECT OF JOB STRESS ON TURNOVER INTENTION AMONG SEAFARERS

ÖZ

Bu çalışmanın amacı, deniz taşımacılığının önemli aktörlerinden olan gemi insanları yaşadıkları iş stresinin işten ayrılma niyetleri üzerindeki etkisinde iş-aile çatışmasının aracılık rolünün ve lider-üye değişiminin düzenleyici rolünün olup olmadığını incelemektir. Anket tekniği ile toplanan veriler SPSS (v22) programında Hayes (2019) tarafından geliştirilen Process macro (v3.4) eklentisinde Model 5, Bootstrap tekniği 5000 örneklem seçeneği ve AMOS.22 paket programı kullanılarak analiz edilmiştir. Gemi insanları gemi işletmelerinin başarısında oynadığı kritik rol ve personel devrinin yarattığı mali kayıplar göz önünde bulundurulduğunda, gemi insanları işten ayrılmalarına neden olan faktörlerin ve bu faktörler arasındaki ilişkilerin incelenmesi önem arz etmektedir. Yapılan analizler, iş stresinin gemi insanları işten ayrılma niyetleri üzerindeki etkisinde iş-aile çatışmasının aracılık rolünün ve lider-üye değişiminin düzenleyici rolünün anlamlı olduğunu göstermiştir. Bu çalışmanın, gemi insanları arasında işten ayrılma niyetini ele alan az sayıdaki çalışmadan biri olması ve araştırma değişkenleri arasındaki ilişkiyi bütünsel olarak ele alan ilk çalışma olması nedeniyle literatüre önemli katkılar sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Gemi İnsanları, İş Stresi, İşten Ayrılma Niyeti, İş-Aile Çatışması, Lider- Üye Etkileşimi, Hayes Model 5.

ABSTRACT

The purpose of this study is to examine whether work-family conflict has a mediating role and leader-member exchange has a moderating role in the effect of job stress experienced by seafarers, who are important actors of maritime transportation, on their turnover intentions. The data collected with the questionnaire technique were analyzed using Model 5, Bootstrap technique 5000 sample option and AMOS.22 package program in the Process macro (v3.4) plug-in developed by Hayes (2019) in SPSS (v22) program. Considering the critical role that seafarers play in the success of shipping companies and the financial losses of personnel turnover, it is important to examine the factors that cause seafarers to leave their jobs and the relationships between these factors. The analyses showed that the mediating role of work-family conflict and the moderating role of leader-member exchange were significant in the effect of job stress on the turnover intentions of seafarers. It is thought that this study will make significant contributions to the literature since it is one of the few studies addressing turnover intention among seafarers and it is the first study to address the relationship between the research variables holistically.

Keywords: Seafarers, Job Stress, Turnover Intention, Work-Family Conflict, Leader-Member Exchange, Hayes Model 5.

¹ This study is derived from a master's thesis conducted by the first author under the supervision of the second author at Kocaeli University, Institute of Social Sciences, Department of Maritime Business Administration.



INTRODUCTION

Maritime transport is the backbone of world commercial transportation. Today, the vast majority of the world's commercial transportation is carried out by maritime transportation. Ships are the heart of maritime transportation, which is one of the most important actors of global transportation, and the successful realization of maritime transportation is only possible with the success of seafaring activities. Seafarers play the biggest role in the success of shipping activities. Seafarers perform one of the most difficult professions in the world due to the sector-specific conditions of the maritime profession (Yorulmaz, 2023). Seafarers work on ships under contracts that can last for months under the limited conditions of ship and sea life. Due to the fact that the seafaring profession requires constant distance from land, seafarers are away from their families and relatives for long voyages and suffer from intense family longing under the limited communication opportunities of the ships. Seafarers, who spend most of their time working, cannot rest sufficiently in their free time due to reasons such as the shared use of private areas such as cabins with other crew members, inadequate cabin facilities, lack of light sealing, exposure to extremely hot or extremely cold weather, noise and vibration caused by ship machinery. This situation causes seafarers to be in a state of constant fatigue and distraction, which poses a great risk for the maritime profession, which is a dangerous profession that requires great attention.

The objectives of organizations are to achieve the goals of existence and to make a profit. In today's increasingly competitive world, recruiting and retaining talented employees provides a competitive advantage for organizations. Organizations that want to gain a competitive advantage over their competitors should be aware of the important impact of human resources on organizational performance and act accordingly. Otherwise, the job satisfaction of employees who are dissatisfied with their jobs will decrease and their intention to leave their current jobs will increase. In order to prevent this, it is very important to examine the variables affecting employees' turnover intentions and the relationships between these variables. Job stress is one of the most important factors affecting employees' organizational behaviours. If stress sources cannot be eliminated, job satisfaction and organizational commitment of employees who have difficulty in coping with stress decreases due to increased levels of burnout, fatigue and pessimism. Another factor that has an impact on employees' organizational behaviours is work-family conflict. Work-family conflict, together with work stress, negatively affects both work and family life. The quality of leader-member exchange between employees and their leaders affects the strength of employees' organizational behaviours. Employees who have a high level of exchange with their leaders are more successful in coping with difficulties, while employees who have a low level of exchange with their leaders can give up more easily in the face of the difficulties they face in their business life. When the literature is examined, the effect of job stress on turnover intention (Chen et al., 2011; Arshadi & Damiri, 2013; Yenihan et al., 2014; Tongchaiprasit & Ariyabuddhiphongs, 2016; Lo et al., 2018; Şahverdioğlu, 2019), the effect of job stress on work-family conflict (Tekingündüz et al., 2015; Armstrong et al, 2015; Erdilek Karabay, 2015; Viegas & Henriques, 2021), the effect of work-family conflict on turnover intention (Çarıkçı & Çelikkol, 2009; Nohe & Sonntag, 2014; Seçilmiş & Kılıç, 2017; Aboobaker & Edward, 2020), the mediating role of work-family conflict (Judge & Colquitt, 2004; Çelik & Turunç, 2010; Akkoç et al, 2011; Okan & Özbek, 2016; Riglia et al., 2021) and the moderating role of leader-member exchange (Martinaityte & Sacramento, 2013; Buch, 2015; Gürsoy & Köksal, 2018; Çiçek & Türkmenoğlu, 2020; Yorulmaz, 2022).



In the literature review, it is seen that the job stress experienced by seafarers, who experience intense job stress under the challenging conditions of the maritime profession, has an effect on their turnover intentions. Moreover, considering the negative effects of conflicts between work and family roles on both the work and private lives of seafarers, it is suggested that work-family conflict may have a mediating role in the effect of job stress on the turnover intentions of seafarers. Based on the studies showing the moderating effect of the level of leader-member exchange on employees' organizational behaviours, it can be said that the quality of leader-member exchange will play a moderating role in the effect of job stress on turnover intention in seafarers. Accordingly, the purpose of this study is to examine the mediating role of work-family conflict and the moderating role of leader-member exchange in the effect of job stress experienced by seafarers, who are important actors of maritime transportation, on their turnover intention. When the literature is examined, there is no study that holistically examines the relationship between the research variables of job stress, leader-member exchange, work-family conflict and turnover intention. Since this study is the first study to examine the relationship between these variables holistically, it is thought that it will bring a new perspective to the literature. In addition, the results obtained in the study regarding the relationships between the variables support the results of previous studies that partially examined the relationships between the variables in question. When the literature on maritime studies is examined, it is seen that the number of studies on seafarers' turnover intentions is quite limited. Considering the critical role that retaining seafarers working under challenging conditions plays in the success of maritime activities, it is considered to be very important to investigate the turnover intentions of seafarers and the factors affecting this intention. This study holistically examines the relationship between job stress, work-family conflict, leader-member exchange and turnover intention among seafarers. The study is expected to contribute significantly to maritime transportation literature and assist managers in shipping companies by comprehensively exploring the relationships between these variables. It aims to enhance understanding of seafarers' organizational attitudes and behaviours, shedding light on the impact of these factors on turnover intentions and their interconnections.

CONCEPTUAL FRAMEWORK

Job Stress

Stress is a conscious/unconscious physical or psychological reaction to a threat or an unwanted event (Cranwell-Ward, 1998). Job stress is the reaction of an employee when his/her knowledge and abilities are not sufficient to fulfill the tasks demanded of him/her in his/her job, to provide the desired level of professionalism and to overcome work-related pressures (Williams & Cooper, 2002). Stress, which is frequently encountered in business life and has a very important place, especially for human resources management and creates serious effects, has been the subject of many researchers' studies.

Researchers have developed many models to identify the causes and effects of stress. These job stress models can be listed as role stress model, demand-control model, effort-reward imbalance model, general model of stress, person-environment fit model, job demand-control and support model and organizational model of stress.

Job stress can cause harmful effects on employees' health as well as personal attitudes such as absenteeism, job dissatisfaction and alienation (Karasek & Theorell, 1990; Güney, 2011; Aksoy & Kutluca, 2010). In addition, stress negatively affects the business in terms of organizational outputs (Yılmaz & Ekici, 2006). However, moderate and controlled stress can also lead to positive outcomes such as increased motivation, ambition for success, increased self-confidence, improved coping skills, job satisfaction, empathy, and optimism in social relations (Aytaç, 2002; Holahan & Moos, 1994).

Turnover Intention

In its most basic definition, intention can be defined as the desire to achieve a goal. In other words, intention is the desire to take steps to achieve a determined goal by making the necessary planning. Mobley (1982) defines turnover intention as an employee's tendency to voluntarily leave the workplace where he/she is actively working. Uğural (2016) interprets turnover intention as a step back taken by the employee when the conditions offered by the organization do not satisfy the employee. Turnover intention is explained by Fong and Mahfar (2013) as the employee's having the idea of leaving the job and planning to leave the job until leaving the current job. Seyrek and İnal (2017) define turnover intention as the employee's intention to quit his/her job and state that this intention is the decision stage of leaving the job before it is put into action.

In the literature, the turnover intention is evaluated within the scope of Maslow's (1943) Hierarchy of Needs Theory, Herzberg et al.'s (1959) Two-Factor Theory, Mobley et al.'s (1978) Turnover Theory, Becker's (1993) Human Capital Theory, Adams' (1965) Equity Theory and Homans' (1961) Social Exchange Theory. When the literature is examined, it is seen that the factors affecting turnover intention are generally categorized under three headings. Şahverdioğlu (2019) classifies them as individual factors, organizational factors and environmental factors; Cotton and Tuttle (1986) classify them as external factors, work-related factors and individual factors. Turnover intention is an intention that does not always result in an act of quitting, but sometimes employees show their unhappiness with the job and their desire for development. In the process of bringing a new person to the position of the employee who has left the job, while it may lead to positive results such as re-career planning within the organization and reviewing the skills, it may also cause negativities such as the loss of talented employees reducing the competitiveness of the organization and requiring extra effort for the training to be given to the personnel to be brought to the vacant position (Chambers et al., 1998; Bulutlar & Öz, 2010).

Work–Family Conflict

Conflict is a situation in which more than one person or group with social relations between them experience disagreements in line with their goals and demands (Schermerhorn et al., 1994: 592). The environments where individuals spend the most time are work and family environments, and individuals' lives are most affected by these environments. Conflicts between roles during the fulfilment of responsibilities according to determined priorities cause conflicts between individuals' work and family lives.

When the literature is examined, it is seen that work-family conflict is basically associated with five different theories. According to the Rational Perspective Theory, work-family conflict arises from the

limited time of individuals who have various roles in their family and work lives (Duxbury et al., 1994; Greenhaus et al., 1987). The Conflict Theory developed by Khan et al. (1964) argues that one role alone cannot create conflict, that an individual should have more than one role in order for conflict to arise, and that these roles should affect each other negatively. According to the Compensation Theory, individuals who fail to fulfill all of their roles in work and family life try to compensate for their deficiency in one role by showing superior success in the other role by turning to either only family life or only work life (Edwards & Rothbard, 2000). Contribution Theory argues that the development of individuals in their roles related to work and family life come together to increase life satisfaction (Duxbury & Higgins, 1991). The Spillover Theory, developed by Staines (1980), argues that a positive or negative situation in an individual's work or family roles will affect other roles in the same direction.

When past studies are examined, it is seen that the factors that cause work-family conflict are generally evaluated under three headings. The first of these are personal factors that cause work-family conflict and affect the physical and mental state of the individual, which is completely related to the individual (Baykal, 2014). Organizational factors refer to factors such as excessive working hours, shift work system, demands of the organization from the employee and leader-member exchange, while familial factors refer to factors such as the number of children, being obliged to care for the elderly, and the working order of the spouse (Vaydanoff, 1988). According to Greenhaus (1985), work-family conflict due to these factors is considered as a source of stress that causes unhappiness in individuals' lives.

Leader-Member Exchange

The exchange between leader and member was first discussed in the literature by Dansereau et al. (1973). Dansereau et al. (1973) explained the relationship between leader and member and introduced it to the literature under the name of "vertical connection theory". In time, this theory was developed by Graen et al. (1982) and renamed as "leader-member exchange" (Graen & Uhl-Bien, 1995). Leader-member exchange argues that leaders cannot treat all subordinates equally, in contrast to the Average Leadership Style, which argues that leaders treat all members of a group in an average manner without discriminating between them (Dansereau et al., 1975). According to leader-member exchange, leaders with limited resources and time do not communicate equally with all of their subordinates, and leaders' communication with their subordinates may differ from subordinate to subordinate (Sparrowe & Liden, 1997; Arslantaş; 2007). At this point, organizational members are divided into two groups "in-group members" and "out-group members" according to the level of exchange between them and their leaders. In-group members are those whose relationship with their leaders is of high quality and who have sincere relationships with their leaders, while out-group members are those whose relationship with their leaders is distant.

Liden et al. (1997) categorize the factors (antecedents) affecting the level of leader-member exchange into three as member characteristics, leader characteristics and exchangeable variables. Again, Liden et al. (1997) divide the results (successors) that emerge according to the level of leader-member exchange into three as results related to attitudes and perceptions, behavioural results and results provided by the organization. Positive leader-member exchanges lead to positive outcomes such as increased job satisfaction and organizational commitment, decreased turnover intentions, and improved communication and innovation skills. In terms of organizational outcomes, positive leader-member



exchange results in increased wages, promotions, bonuses, and career development support for members. A low level of leader-member exchange will lead to negative outcomes.

LITERATURE REVIEW and RESEARCH HYPOTHESES

The Relationship Between Job Stress And Turnover Intention

Job stress is a situation that occurs when the characteristics of the employee and the characteristics required by the job do not match. High job stress causes employees to experience various psychological and physical disorders (Beehr & Newman, 1978). In case of persistent job stress, employees' negative attitudes towards their jobs and the organization they work for increase and these negative attitudes may result in turnover (Imran et al., 2020). When the literature is examined, there are many studies investigating the effect of perceived job stress on turnover intention. Tongchaiprasit and Ariyabuddhiphongs (2016) conducted a survey study with the participation of 145 chefs working in international chain hotels to examine the relationships between creativity, job satisfaction, job stress and turnover intention. The findings of the study revealed that job stress due to lack of resources and excessive workload increased the turnover intention of chefs. Arshadi and Damiri (2013) examined the relationship between job stress and turnover intention and job performance under the moderating effect of organizational self-perception through 286 participants working in a drilling company operating in Iran and concluded that there is a significant positive relationship between job stress and turnover intention. Lo et al. (2018) conducted a survey study with the participation of 26,945 and 19,386 nurses in 2011 and 2014, respectively, and concluded that job stress experienced by nurses has a significant effect on their turnover intentions. Yenihan et al. (2014) conducted a study with the participation of 329 employees to examine the effect of job stress on turnover intentions of white and blue collar employees working in an automotive company operating in Sakarya, is another study that reveals the effect of job stress on turnover intention. Similarly, the study conducted by Chen et al. (2011) with the participation of 255 employees working in banks operating in Taiwan and the study conducted by Şahverdioğlu (2019) with the participation of 236 female employees are studies that reveal the effect of job stress on turnover intention. This information obtained from the literature suggests that the job stress experienced by seafarers, who have a very stressful profession, may have an impact on their turnover intentions, and Hypothesis 1 was formed in line with this idea:

Hypothesis 1: Seafarers' job stress positively affects their turnover intentions.

The Relationship Between Job Stress And Work-Family Conflict

Job stress is the mental depression and tension caused by the stress factors that employees are exposed to due to their jobs (Cullen et al., 1985). If job stress is high and continuous, it affects not only the work life of employees but also their family life. Employees who experience intense work stress under the stressors of work life cannot fulfil their roles in the family sufficiently because they devote most of their time and energy to their work (Triplett, 1999). When the literature is examined, it is seen that there are many studies examining the relationship between work stress and work-family conflict. Tekingündüz et al. (2015) conducted a survey study with the participation of 201 employees working in a training and

research hospital in Ankara to examine the relationships between work-family conflict, job stress and job satisfaction. The results of the study revealed that there is a significant positive relationship between job stress and turnover intention. Armstrong et al. (2015) conducted a study with the participation of 441 prison officers working in 13 different prisons to examine the relationships between job stress, job satisfaction and work-family conflict and found that there is a high degree of relationship between job stress and work-family conflict. In the study, the authors stated that a bad day at work significantly affected the family life of prison officers. Similarly, a study conducted by Erdilek Karabay (2015) with 206 healthcare employees of private hospitals operating in Istanbul to investigate the effects of job stress, work-family conflict and work-family-life satisfaction on turnover intention showed that job stress experienced by healthcare workers positively affected their turnover intention. Viegas and Henriques (2021) conducted a study with the participation of 100 police officers to examine the relationship between job stress, work-family conflict and job satisfaction experienced by police officers, who have a highly stressful job, is another study that revealed that job stress has a high positive effect on work-family conflict. In line with this information obtained from the literature, it comes to mind that the job stress experienced by seafarers, who have one of the most stressful professions in the world and cannot devote enough time and energy to their families due to their working life away from their families, may have an effect on work-family conflicts. Hypothesis 2 was formed in line with this idea:

Hypothesis 2: Seafarers' job stress positively affects their work-family conflicts.

The Relationship Between Work-Family Conflict And Turnover Intention

Businesses that want to achieve their goals in an increasingly competitive environment expect their employees to exhibit the highest possible performance. Under the pressure of performance, employees, who have to work for longer periods with increasing work intensity, may experience conflicts between their work and family roles, which are increasingly becoming opposite poles (Aboobaker & Edward, 2020). When the literature is examined, there are many studies investigating the effect of work-family conflict on turnover intention. Çarıkçı and Çelikkol (2009) conducted a survey study with the participation of 100 white-collar employees of a business operating in Denizli to examine the effect of conflicts between work and family roles on organizational commitment and turnover intentions. The results of the study showed that the work-family conflict experienced by white-collar employees had a significant positive effect on their turnover intentions. In their study, Nohe and Sonntag (2014) examined the exchange between work-family conflict, social support, and turnover intention through 665 participants and found that a change in work-family conflict predicts an increase in turnover intention. The survey study conducted by Seçilmiş and Kılıç (2017) with the participation of 162 travel agency employees operating in Eskişehir is another study showing that work-family conflict experienced by travel agency employees has a significant effect on turnover intentions with all its sub-factors. Similarly, the study by Aboobaker and Edward (2020), which examines the relationship between work-family conflict, work-family enrichment, and turnover intentions of bank employees in India, is another study that reveals the significant effect of work-family conflict level on turnover intention. This information obtained from the literature suggests that work-family conflict may have an effect on turnover intentions of seafarers who belong to the maritime profession, a profession where conflicts between work and family life are frequently experienced due to sectoral conditions, and Hypothesis 3 was formed in line with this idea:



Hypothesis 3: Seafarers's work-family conflict positively affects their turnover intentions.

Mediating Role Of Work-Family Conflict

When the literature is examined, various studies are showing that work-family conflict has a mediating role in the relationship between employees' organizational behaviours. Judge and Colquitt (2004) conducted a survey study with the participation of 174 faculty members of 23 different universities in the USA to examine the mediating role of work-family conflict in the relationship between organizational justice and stress. The results of the study showed that work-family conflict has a significant mediating role in the relationship between faculty members' perceived organizational justice and stress levels. Çelik and Turunç (2010) examined the effect of leader support on job performance through work-family conflict and conducted a questionnaire study with 232 employees of small businesses operating in the field of defence in Ankara. The findings of the study revealed that leader support has a significant effect on job performance and that work-family conflict plays a high mediating role in this effect. Akkoç et al. (2011) examined the mediating role of work-family conflict in the effect of developmental culture and leader support on innovative behaviour and job performance with the participation of 265 defence sector employees and concluded that work-family conflict mediated the effect of developmental culture and leader support on innovative behaviour. Similarly, Okan and Özbek (2016) examined the mediating role of work-family conflict in the relationship between workload, job dissatisfaction and turnover intention and Ringlea et al. (2021) examined the mediating role of work-family conflict in the relationship between technostress and psychological well-being. This information obtained from the literature suggests that work-family conflict may have a mediating effect on the effect of job stress on turnover intention in seafarers, and Hypothesis 4 was formed in line with this idea:

Hypothesis 4: There is a mediating role of work-family conflict in the relationship between job stress and turnover intentions of seafarers.

The Regulatory Role Of Leader Member Exchange

When the literature is examined, various studies are showing that leader-member exchange plays a regulatory role in the relationships related to employees' organizational behaviours. The first example is the survey study conducted by Martinaityte and Sacramento (2013) on a sample of 26 auditors and 151 sales representatives working in pharmaceutical and insurance companies to examine the role of leader-member exchange in the relationship between creativity and sales effectiveness. In the said study, the authors concluded that leader-member exchange has a significant moderating effect on the relationship between creativity and sales effectiveness. According to the study, the effect of creativity on the sales effectiveness of employees with high levels of leader-member exchange is higher than that of employees with low levels of leader-member exchange. Buch (2015) examined the moderating role of leader-member exchange in the relationship between employee-organization exchange and affective commitment in a sample of 341 employees of financial companies operating in Norway and found that leader-member exchange had a significant effect on the relationship between these variables. Another study revealing the significant moderating effect of leader-member exchange is Gürsoy and Köksal's

(2018) study in which they examined the moderating role of leader-member exchange in the effect of obligatory citizenship behaviour on psychological contract perception with the participation of 192 employees working in the private sector. The results of the study showed that the effect of private sector employees' perceptions of obligatory citizenship behaviour on their psychological contract perceptions differed according to their level of leader-member exchange. Similarly, Çiçek and Türkmenoğlu's (2020) study on the moderating role of leader-member exchange on the effect of authentic leadership on job alienation and Demirbağ and Küçük's (2021) study on the moderating role of leader-member exchange on the effect of leader-member exchange on task and contextual performance are other studies that reveal the moderating effect of leader-member exchange. This information obtained from the literature suggests that the effect of job stress on turnover intention may differ according to the quality of leader-member exchange and Hypothesis 5 was formed in line with this idea:

Hypothesis 5: The effect of seafarers' job stress on their turnover intention differs according to the level of leader-member exchange. Namely, the positive effect of job stress on the turnover intention of seafarers is low when the leader-member exchange is high, and high when the leader-member exchange is low.

In the study, the research model in Figure 1 was designed to test the mediating and moderating effects of work-family conflict and leader-member exchange on the effect of the level of job stress perceived by seafarers on their turnover intention. According to the designed model, job stress is considered as independent variable, turnover intention as the dependent variable, work-family conflict as the mediator and leader-member exchange as the moderator variable.

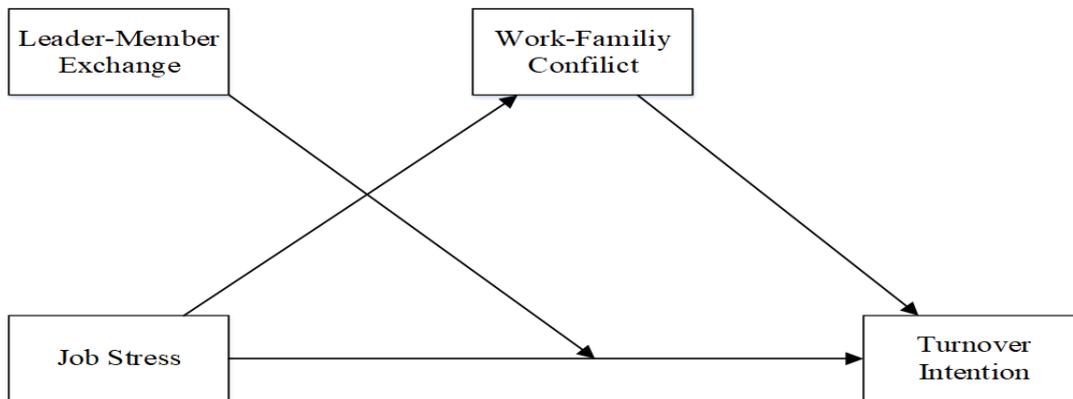


Figure 1. Research Model

Source: Authors.

RESEARCH METHOD

While analyzing the data collected with the survey technique in the study, frequency analysis was used to determine demographic characteristics, descriptive analysis to reveal descriptive information about the

scales, Cronbach's Alpha coefficients to measure the reliability of the scales used in the research, explanatory and confirmatory factor analysis to determine the structural validity of the scales, correlation analysis to measure the relationships between variables, and regression analysis to test hypotheses. The Process macro (v3.4) plug-in developed by Hayes (2019), the Bootstrap technique with 5000 sample options, and the AMOS.22 package program were used in SPSS (v22) to conduct these analyses.

Population, Sample And Data Collection

The data of this study were obtained by questionnaire technique after the decision and approval of Kocaeli University Social and Human Sciences Ethics Committee at its meeting dated 29/03/2022 and numbered 2022/04. The questionnaires were sent to the shipping companies operating in Turkey and the social platforms where the seafarers are members and collected through Google form with 339 seafarers who voluntarily participated in the survey between February and May 2022. Considering that there are a total of 136,000 Turkish citizen seafarers (104,000 crew class and 32,000 officer class seafarers) registered in Turkey, it can be said that the sample is sufficient.

Scales Used In The Study

Participants' answers to all questions were collected on a 5-point Likert scale ranging from "Strongly Disagree (1)" to "Strongly Agree (5)". In the study, the 4-question scale developed by Cohen, Kamarck and Mermelstein (1983) was used to measure the job stress perceived by the seafarers. A 3-question scale developed by Wayne et al. (1997) was used to measure turnover intention. To measure the levels of work-family conflict, the unidimensional 5-question work-family conflict scale developed by Netemeyer et al. (1996) was used. The 5-question scale developed by Graen et al. (1982) was used to measure the level of leader-member exchange.

FINDINGS

Descriptive Statistics

In the study, the demographic characteristics of the seafarers participating in the research were analyzed by frequency analysis and the descriptive statistics of the research scales were analyzed by descriptive analysis. As a result of the frequency analysis, the findings regarding the demographic characteristics of the seafarers are presented in Table 1.

Table 1. Demographic Characteristics of Seafarers.

Variables	Groups	Frequency	Percentage (%)
Gender	Woman	15	4,4
	Male	324	95,6
Age	18-24	70	20,6
	25-34	99	29,2
	35-44	96	28,3
	45-54	60	17,7
	55 and above	14	4,1
Education	Primary School	30	8,8
	Middle School	53	15,6
	High School	143	42,2
	University	113	33,3
Department Worked in	Deck	245	72.3
	Engine	61	18.0
	Auxiliary Class	33	9.7
Total Experience	3 years and below	86	25.4
	4-7 years	100	29.5
	8-11 years	56	16.5
	12-15 years	38	11.2
	16-19 years	22	6.5
	20 years and above	37	10.9
Ratings	Deck Crew	148	43.7
	Engine Crew	32	9.4
	Galey Crew	14	4.1
	Deck Officer	45	13.3
	Engine Officer	27	8.0
	Chief Engineer	6	1.8
	Ship Master	67	19.8
Total		339	100.0

Source: Authors

When the findings obtained as a result of the frequency analysis in Table 1 are analyzed, it is seen that 15 of the 339 seafarers participating in the research are female and 324 are male. When the ages of the seafarers are analyzed; 70 of the participants are between 18-24, 99 of them are between 25-34, 96 of them are between 35-44, 60 of them are between 45-54 and 14 of them are between 55 and above. Among the seafarers who participated in the research, 30 were primary school graduates, 53 were

middle school graduates, 143 were high school graduates and 113 were university graduates. When analyzed according to the departments they work in the ships, it is seen that 245 of the seafarers work in the deck department, and 61 of them work in the engine department, while 33 of the participants work as auxiliary class seafarers in the ships. When the findings related to the duration of experience of seafarers in their professions are analyzed; 86 of the participants have 3 years or less, 100 of them have 4-7 years of experience, 56 of them have 8-11 years of experience, 38 of them have 12-15 years of experience, 22 of them have 16-19 years of experience and 37 of them have 20 years or more of experience. The findings related to the duties of the seafarers on board the ships show that 148 of the participant's worked as deck crew, 32 as engine crew, 14 as galley crew, 45 as deck officer, 27 as engine officer, 6 as chief engineer and 67 as ship master.

Correlation Analysis

Table 2 presents the correlation analysis findings of the relationship between leader-member exchange (LMX), work-family conflict (WFC), job stress (JS) and turnover intention (TOI) variables.

Table 2. Correlation Analysis Results

		LMX	WFC	JS	TOI
LMX	Pearson Correlation	1	.128*	-.163**	-.345**
	Sig. (2-tailed)		.018	.003	.000
	N	339	339	339	339
WFC	Pearson Correlation	.128*	1	.279**	.223**
	Sig. (2-tailed)	.018		.000	.000
	N	339	339	339	339
JS	Pearson Correlation	-.163**	.279**	1	.612**
	Sig. (2-tailed)	.003	.000		.000
	N	339	339	339	339
TOI	Pearson Correlation	-.345**	.223**	.612**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	339	339	339	339

Source: Authors.

When Table 2 is examined, it is seen that the correlation coefficient of job stress and work-family conflict variables is 0.279 ($r=0.279$). The fact that this value is between +1 and -1 and has a positive sign ($r=0.279$, $-1 < r=0.279 < +1$) indicates that there is a positive and significant relationship between job stress and work-family conflict variables.

Validity and Reliability Analyses

Table 3 presents the factor loadings, variance explained by each scale and total variance explained ratios, Cronbach's Alpha coefficients, Kaiser-Meyer-Olkin (KMO) and Barlett Test values obtained as a result of exploratory (EFA) and confirmatory factor (CFA) analyses.

Table 3. Explanatory (EFA) and Confirmatory (CFA) Factor Analysis Results for the Scales.

Scale	Code	Number of Items	Factor Loadings		Explained Variance Ratio		Reliability (Cronbach's Alpha)	KMO	Barlett Test
			EFA	CFA	Scale	Total			
WFC	WFC1	5	.849	.842	23.275	77.59	.931	.878	4333.1
	WFC2		.907	.942					
	WFC3		.888	.902					
	WFC4		.864	.767					
	WFC5		.854	.756					
LMX	LMX1	5	.807	.730	21.194	77.59	.893	.878	4333.1
	LMX2		.861	.861					
	LMX3		.859	.845					
	LMX4		.823	.794					
	LMX5		.786	.741					
JS	JS1	4	.846	.829	20.283	77.59	.921	.878	4333.1
	JS2		.864	.879					
	JS3		.870	.884					
	JS4		.857	.863					
TOI	TOI1	3	.778	.878	12.840	77.59	.876	.878	4333.1
	TOI2		.826	.845					
	TOI3		.783	.886					

Source: Authors.

The suitability of the data for EFA can be examined by KMO coefficient and Barlett's test of sphericity (Büyüköztürk, 2004). Table 3 shows that the KMO coefficient of the scales is 0.878 and the Barlett's test of sphericity is 4333.105. The fact that the KMO coefficient takes a value between 0.80-0.90 indicates that the distribution of the scale data is quite good (Akgül & Çevik, 2003). In this direction, with the value of 0.878, it can be said that the distribution of the data belonging to the study scales is perfectly suitable for factor analysis. Another condition to say that the data belonging to the scales are suitable for factor analysis is that the result of Barlett's test of sphericity is significant ($p < 0.05$) (Büyüköztürk, 2007). As Barlett's test of sphericity value of the research scales was found to be within the accepted value range

($\chi^2 = 4333,105$, $p = 0.000$, $p < 0.005$), it was determined that the scales were suitable for factor analysis. Acceptable

values for the interpretation of Cronbach's Alpha coefficients (α) are values in the range of $0.6 \leq \alpha < 0.7$. A coefficient in the range of $0.7 \leq \alpha < 0.9$ indicates that the reliability of the scale is good and $\alpha \geq 0.9$ indicates that the reliability of the scale is excellent (George & Mallery, 2003). In this context, when the Cronbach's alpha coefficient values obtained for the scales in Table 3 are analyzed, it is found that the work-family conflict and work-stress scales are excellent, while the leader-member exchange and turnover intention scales are good.

Looking at the explained variance values determined as a result of factor analysis in Table 4, it is seen that the work-family conflict scale explains 23.275% of the total variance, the leader-member exchange scale explains 21.194% of the total variance, the job stress scale explains 20.283% of the total variance and the turnover intention scale explains 12.840% of the total variance. Considering the total variance explained, it is seen that the scale expressions explain 77.592% of the variables to be measured in total. CFA was applied to the factor structure obtained by EFA analysis and as a result of the analysis, it was determined that the factor loadings of all variables belonging to the measurement model were greater than the threshold value of 0.50. The fit indices of the measurement model are also shown in Table 4.

Table 4. CFA Fit Index Values.

Compliance Indexes	Acceptable Values	Perfect Fit Values	Values Obtained
CMIN / DF (χ^2 / sd)	$3 < \chi^2 / sd < 5$	$\chi^2 / sd < 3$	1.816
RMR	$0.05 < RMR < 0.10$	$0 < RMR < 0.05$	0.049
GFI	$0.90 < GFI < 0.95$	$0.95 < GFI < 1$	0.934
TLI	$0.95 < TLI < 0.97$	$0.97 < TLI < 1.00$	0.974
CFI	$0.95 < CFI < 0.97$	$0.97 < CFI < 1.00$	0.979
RMSEA	$0.05 < RMSEA < 0.08$	$0 < RMSEA < 0.05$	0.049

Source: Bentler and Bonett (1980); Kline (2011).

The CMIN/DF, RMR, TLI, CFI and RMSEA indices of the fit indices obtained as a result of CFA analysis show excellent fit and GFI index shows good fit. When the skewness and kurtosis coefficients of the items in the scale were examined, it was seen that they were within the range of ± 1.5 (Tabachnick and Fidell, 2013), which is accepted as the threshold value. Accordingly, it was accepted that the data showed a normal distribution.

Testing Hypotheses

In this study, the mediating and moderating relationships between the variables and the testing of hypotheses were carried out by using the Process macro (v3.4) plug-in developed by Hayes (2019) in SPSS (v22) program, Bootstrap technique, 5000 sample options and Model 5. Since the regression relationship

between job stress, which is the independent variable of the study, and work-family conflict, which is the mediating variable, could not be examined within the scope of Model 5, the relationship between these two variables is discussed separately. Table 6 shows the mediator and moderator model analyses and the regression analysis results of the relationship between job stress and work-family conflict.

In the mediating and moderating effect analyses conducted with the Bootstrap technique, the significance levels of the analyses are examined by considering the values in the 95% confidence interval (CI). In the analyses performed with this technique, both BootLLCI and BootULCI effects, which can take negative and positive values, are expected to be in the same direction. In order to say that the findings obtained in the mediating and moderating effect analyses conducted with the Bootstrap technique are significant, both BootLLCI and BootULCI effects should be positive or negative. If there is a value of 0 between these values, the findings obtained are not significant (Hayes, 2019; MacKinnon et al., 2004).

When Table 6 is examined, it is seen that job stress has a significant positive effect on the turnover intention variable ($B=0.6044$, $t=13.0636$, $p<0.05$, 95% CI [0.5134 - 0.6954]). According to this finding, the increase in the job stress experienced by the seafarers leads to an increase in their turnover intentions and the decrease in the job stress experienced by the seafarers leads to a decrease in their turnover intentions. In line with this finding, Hypothesis 1 of the research hypotheses is accepted.

In order to test Hypothesis 2, the relationship between the independent variable job stress and the dependent variable work-family conflict was analyzed by regression analysis. Table 5 shows that job stress has a significant positive effect on work-family conflict ($B=0.3055$, $t=5.3403$, $p<0.05$, 95% CI [0.1929 - 0.4180]). Accordingly, the increase in the work stress experienced by the seafarers leads to an increase in the level of work-family conflict and the decrease in the work stress experienced by the seafarers leads to a decrease in the level of work-family conflict. According to the regression analysis results, job stress experienced by seafarers explains 0.08% ($R^2 = 0.078$) of their turnover intention. In line with these findings, Hypothesis 2 of the research hypotheses is accepted.

Table 5. Research Model Analysis Results.

Variables	B	SE	t	p	95% CI	
					LL	UL
Fixed	3.1375	.0577	54.3715	.0000	3.0240	3.2510
JS	.3055	.0572	5.3403***	.0000	.1929	.4180
Model Summary	$R^2 = 0.078$; $F = 28.518$ (1.337); $p < 0.001$;					
Variables	B	SE	t	p	95% CI	
Fixed	1.8559	.1383	13.4232	.0000	1.5839	2.1278
JS	.6044	.0463	13.0636	.0000	.5134	.6954
WFC	.1216	.0420	2.8965	.0040	.0390	.2041
LMX	-.3492	.0577	-6.0520	.0000	-.4627	-.2357

JS*LMX		.2005	.0512	3.9185	.0001	.0998	.3011
Moderating Effect	Low	.7618	.0576	7.7670	.0000	.3338	.5602
	Medium	.6044	.0463	13.0636	.0000	.5134	.6954
	High	.4470	.0648	11.7617	.0000	.6344	.8892
Bootstrap IndirectEffect	Effect=0.0371; BootSE=0.0151; p< 0.05; 95% BCA CI [0.0099; 0.0695]						
Model Summary	R ² =0.4707; F=74.268 (4.337); p<0.001; (WFC*LMX) ΔR ² =0.024; F= 15.3546 (1-334); p<0.001						

*p< 0.05; ***p< 0.001; Dependent Variable= TOI

Source: Authors.

The findings in Table 5 similarly show that the work-family conflict variable has a significant positive effect on the turnover intention variable (B=0.1216; t=2.8965; p<0.05; 95% CI [0.0390 - 0.2041]). An increase in work-family conflict experienced by seafarers increases their turnover intentions and a decrease in the level of work-family conflict leads to a decrease in turnover intentions. With this finding, Hypothesis 3 of the research hypotheses is accepted.

Looking at the results of the Bootstrap indirect effect analysis for the mediating role of work-family conflict in Table 5, it is seen that there is a significant mediating effect of work-family conflict in the relationship between job stress variable and turnover intention variables (Effect=0.0371; BootSE=0.0151; p< 0.05; 95% BCA CI [0.0099; 0.0695]). According to this finding, the positive significant effect of job stress on turnover intention is strengthened through work-family conflict. With this finding, Hypothesis 4 of the research hypotheses is accepted.

Table 5 shows that the moderating role of leader-member exchange in the relationship between job stress and turnover intention is significant (B= 0. 2005; t=3.9185; p < 0.05; 95% [0.0998 - 0.3011]). When Table 5 is analyzed, it is seen that when leader-member exchange is high, the effect of job stress on turnover intention is low, and when leader-member exchange is low, the effect of job stress on turnover intention is high. In line with these findings regarding the moderating effect of leader-member exchange, Hypothesis 5 is accepted.

As a result of the analysis of the research model, it was seen that the model was significant as a whole (F=74.268 (4.337), p<0.05) and all of the hypotheses put forward in the study were accepted.



According to the findings, the research model created with the variables of job stress, work-family conflict and leader-member exchange explains approximately 48% ($R^2 = 0.4707$) of the turnover intentions of seafarers.

DISCUSSION and CONCLUSION

Under increasing competitive conditions, organizations' competitive advantage over their competitors and their achievement of organizational goals depend on their high performance. The total performance of the organization consists of the sum of the individual performance of each employee working in the organization. Although the opportunities for organizations to access the resources they need have increased with globalization and developing technology, the important thing is to obtain and retain talented employees who will use these resources effectively and contribute to organizational performance with their individual performance. Considering that recruiting a new employee is more costly and tedious than retaining an existing employee in processes such as recruitment, training and adaptation, it is very important to identify and eliminate the factors that may cause talented and value-creating employees to leave their jobs as much as possible.

Seafarers, who play a critical role in the success of maritime transportation, which is the most important mode of transportation in the world's commercial transportation, work under challenging conditions specific to the maritime profession arising from sea and ship conditions. Challenging physical conditions, long working hours, excessive workload, inadequate nutrition and rest, lack of social opportunities, long voyage times and distance from family life are all factors that may cause seafarers to leave their current jobs in the long run and seek new job opportunities on land. Considering that the processes of leaving and joining the ship are much more costly and difficult compared to the processes of leaving and recruitment of land-based professions, the retention of talented employees who can fulfill such a challenging profession by adapting to ship conditions has a great impact on the performance of shipping companies. Accordingly, the purpose of this study is to examine the mediating roles of work-family conflict and the moderating roles of leader-member exchange in the effect of job stress experienced by seafarers, who are important actors of maritime transportation, on their turnover intentions.

The population of the study consists of Turkish seafarers who are actively working on merchant ships. The sample of the study consists of 339 seafarers who participated in the survey by simple random sampling method from this universe. The data collected through the Google form between February and May 2022 with the survey technique were analyzed using Model 5 in the Process macro (v3.4) plug-in developed by Hayes (2019) in the SPSS (v22) program, 5000 sampling options with Bootstrap technique and AMOS.22 package program.

The first of the findings obtained by testing the research hypotheses showed that there is a significant positive effect of job stress on turnover intention among seafarers. In line with this finding, Hypothesis 1 of the research hypotheses is accepted. Considering the working conditions of seafarers and the numerous sources of stress they are exposed to, if the working conditions cannot be improved and the sources of stress cannot be eliminated, the job stress experienced by seafarers causes an increase in their intention to quit their jobs. The commitment of seafarers who feel exhausted by constantly experiencing intense job stress decreases and their desire to evaluate job opportunities on land that will

make their lives easier increases over time. This finding obtained in the study is similar to the findings of previous studies in the literature examining the effect of job stress on turnover intentions (Chen et al., 2011; Arshadi & Damiri, 2013; Yenihan et al., 2014).

The second finding of the study showed that there was a significant positive effect of job stress on work-family conflict in seafarers and Hypothesis 2 was accepted with this finding. This finding supports the findings of previous studies examining the effect of perceived job stress on the level of work-family conflict through seafarers and employees of various sectors (Armstrong, 2015; Tekingündüz et al., 2015; Ismail & Gali, 2017; Liu et al., 2021). Seafarers, whose psychological resilience decreases due to the intense work stress they experience, have less tolerance for their family responsibilities and have difficulty in fulfilling these responsibilities. At the same time, the negative mood caused by work stress is reflected in the quality of seafarers' communication with their family members. These situations arising from the intense work stress experienced by seafarers damage the relationship between seafarers and their families, who are in a constant state of separation due to the nature of the maritime profession, and increase the level of work-family conflict.

The third finding obtained through hypothesis tests showed that the level of work-family conflict has a significant positive effect on the turnover intention of seafarers and Hypothesis 3 was accepted in line with this finding. This finding is similar to the findings of previous studies investigating the effect of work-family conflict level on turnover intention (Çarıkçı & Çelikkol, 2009; Turunç & Çelik, 2010; Aboobaker, 2017; Seçilmiş & Kılıç, 2017; Aboobaker, 2020). The sector-specific challenging conditions of the maritime profession affect not only the seafarers themselves and their work lives but also their family members and family lives. When the increase in conflicts between work and family roles becomes unbearable, seafarers who feel obliged to choose between their current jobs and their families tend to leave their current jobs and search for a new job that will make their lives easier.

The fourth finding obtained as a result of testing the research hypotheses showed that there is a significant mediating effect of work-family conflict level on the effect of perceived job stress on turnover intentions of seafarers and accordingly, Hypothesis 4 is accepted. This finding is in line with the findings of previous studies in the literature that reveal the mediating effect of work-family conflict level (Judge & Colquitt, 2004; Boyar & Mosley Jr, 2007; Çelik & Turunç, 2010; Akkoç et al., 2011; Ringlea et al., 2021). The increase in job stress perceived by seafarers leads to an increase in work-family conflict levels, and high levels of work-family conflict increase seafarers' turnover intentions.

The fifth and final finding of the study showed that there is a significant moderating variable effect of leader-member exchange on the effect of job stress experienced by seafarers on their turnover intentions, and thus, the final hypothesis of the study, Hypothesis 5, is accepted. The level of exchange that seafarers have with their captains and officers, who are the leaders on board the ships, shapes their perspectives towards the maritime profession. As the level and quality of the relationship between them and their leaders increases, seafarers become more resilient against difficulties, and they are more optimistic about their work and sea life thanks to the support they receive from their leaders. In this direction, it is an acceptable finding that if the quality of leader-member exchange of seafarers is high, the effect of job stress on turnover intention is weak, and if the quality of leader-member exchange is low, the effect of job stress on turnover intention is strong. The last finding of the study is similar to the



findings of the studies in the literature showing the role of the leader-member exchange level as a moderating variable (Buch, 2015; Gürsoy & Köksal, 2018; Çiçek & Türkmenoğlu, 2020).

As a result, all of the research hypotheses were accepted and the research model showing the mediating role of work-family conflict and the moderating role of leader-member exchange in the effect of job stress experienced by seafarers on their turnover intentions was confirmed. The high staff turnover rate experienced in the maritime profession is a significant cost for ship operators. Even when the costs of transportation of a new seafarer to the port where the ship is located due to the insufficiency in the number of crew members are considered, it is understood that staff turnover in the maritime profession is incomparably more costly than in other professions. In addition, the departure of colleagues with whom they have worked together for a long time has negative effects on the mental state of seafarers, while it takes time for them to adapt to their new colleagues who will join the ship. Another negative consequence of increased turnover intention is the decrease in the individual performance of seafarers. In order to protect themselves from these tangible and intangible negativities caused by turnover and to achieve maximum efficiency, ship operators need to take various measures to increase the organizational commitment of seafarers.

In the future, researchers who want to research similar topics can be recommended to include seafarers from all over the world in the research sample. The sample of this study consists of Turkish seafarers working on merchant ships and the results obtained in this study are representative of Turkish seafarers. Considering that the maritime sector is one of the global sectors in the world, it would be useful to include seafarers from different ethnic origins and cultures in the research sample in future studies in order to generalize the results to be obtained. Another important recommendation that can be offered to researchers is to customize the research according to ship types. The conditions of ships differ according to their types and these differentiated conditions can shape the organizational behaviors of seafarers. For this reason, it would be beneficial for the maritime literature to investigate the turnover intentions of seafarers working on different types of ships and the relationships between the factors affecting this intention in terms of ship types.

As a result of the study, various recommendations have also been developed for the managers of the shipping companies operating in practice. In order to reduce the turnover intention of seafarers and the related poor performance as much as possible, it is firstly recommended to shorten the contract duration of seafarers. As seafarers become more distant from social life during long contract periods, they experience serious adaptation problems when they return to shore life. Shorter contract periods would facilitate the adaptation process of both the seafarers and their families. In order to ensure that shorter contract periods do not reduce the organizational commitment of seafarers, seafarers should be offered a guaranteed career opportunity with the same crew members by the ship management. Thus, with the shortening of transition periods between land and sea life, the level of alienation of seafarers from ship life and crew members will decrease.

During the recruitment process, shipping companies should conduct detailed interviews with seafarers about their family and private lives. By having important information about the private lives of each employee, the companies will be able to help them and their families more effectively with the problems that the seafarers may experience during their time away from land. Shipping companies should pay attention not only to the organization-employee relationship that improves the exchange

between the organization and the employee but also to the organization-family relationship that supports their families when the seafarers are away from land. In this way, the stress experienced by seafarers who trust that the organization they work for can support them in times of need of their family will decrease and their organizational commitment will increase.

In order to reduce the turnover intentions of seafarers by ensuring high-quality leader-member exchanges, subordinate-superior relationships on ships should be based on mutual empathy. Intimate relationships between leaders and subordinates on board ships by maintaining the boundaries of respect will increase the motivation of seafarers and their ability to cope with challenges. In addition, in order to strengthen the quality of leader-member exchange by making the seafarers feel valued, it would be beneficial for the captains and officers to consider the opinions of the crew members when making important decisions. Another issue that plays an important role in the seafarers's exchanges with their leaders is the perception of justice. According to the leader-member exchange theory, although leaders cannot be expected to treat all crew members equally, captains and officers should treat all crew members equally in terms of fairness and provide all crew members with the opportunity to communicate effectively. At the same time, the fact that each ship's people's justice system operates according to their own national rules is a major obstacle to the perception of justice on board ships. A common justice system for all crew members on board ships would make a significant contribution to strengthening the perception of justice.

Improving social opportunities on board ships is an issue that should be emphasized in order to reduce work stress by ensuring the work-life balance of seafarers. In order for seafarers to get away from work stress on board, more frequent onboard social activities should be organized and opportunities for activities such as gym, television, various games, etc. should be increased on board. At the same time, the participation of seafarers in land life should be encouraged during the time the ships are in port, and activity areas for seafarers should be established in or around ports around the world to ensure global equality in this regard. Communication is a vital issue for seafarers, as the means of connecting them with their families and land life on board ships are limited to communication tools such as telephone, internet and e-mail. For this reason, communication facilities on ships should be improved and the cost of access to these communication facilities should be reduced.

In addition to the above-mentioned recommendations, in order to increase the resilience of seafarers and reduce turnover, it is recommended to increase the comfort of cabins and living spaces, to pay special attention to food and beverage, which is the biggest source of motivation on board, to have a professional health officer regularly on all types of ships so that seafarers feel safe, to have regular check-ups for seafarers by ship operators and to increase the motivation of seafarers by making various rewards.

The first limitation of the research is that the research population is limited to Turkish seafarers. In research related to the maritime sector, which is a global sector, it will increase the quality of the results to be obtained if the universe includes seafarers from all over the world. In addition, the population of the study consists of Turkish seafarers working on all merchant ships regardless of ship type. Considering that the working and living conditions of the ships vary significantly according to the ship types, applying the research to each ship type separately will provide more customized results in understanding the turnover intentions of seafarers and the variables that cause this intention.

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